

Georgia Power Company
Plant Yates – Ash Ponds 3 & B/B'
Newnan, Georgia
Coweta County

2018 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT

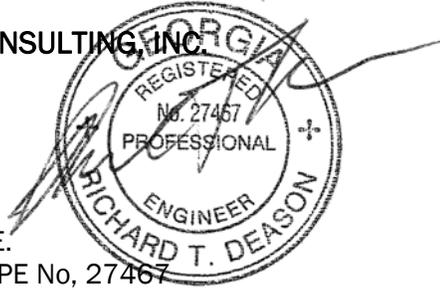


ATLANTIC COAST
CONSULTING, INC.

CERTIFICATION STATEMENT

This 2018 *Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company – Plant Yates – Ash Ponds 3 and B/B'* has been prepared in accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations (CFR) 257 Subpart D) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10 under the supervision of a licensed professional engineer with:

ATLANTIC COAST CONSULTING, INC.



Richard T. Deason, P.E.
Licensed State of GA, PE No, 27467
01/31/2019

TABLE OF CONTENTS

Cover Sheet

Certification Statement

Table of Contents

Section	Page No.
1.0 INTRODUCTION	3
1.1 Regional Geology and Hydrogeologic Setting	3
1.2 Groundwater Monitoring System and CCR Units	4
2.0 GROUNDWATER MONITORING ACTIVITIES.....	5
2.1 Monitoring Well Installation and Maintenance.....	5
2.2 Assessment Monitoring.....	5
3.0 SAMPLE METHODOLOGY & ANALYSES	6
3.1 Groundwater Flow Direction, Gradient, and Velocity.....	6
3.2 Groundwater Sampling.....	6
3.3 Laboratory Analyses	7
3.4 Quality Assurance and Quality Control Summary	7
4.0 STATISTICAL ANALYSIS.....	8
4.1 Statistical Methods	8
4.1.1 Appendix III Constituents.....	8
4.1.2 Assessment Monitoring Statistics	8
4.2 Statistical Analyses Results	9
4.2.1 First Semi-Annual Assessment Monitoring Event.....	9
4.2.2 Second Semi-Annual Assessment Monitoring Event.....	9
5.0 MONITORING PROGRAM STATUS	10
6.0 CONCLUSIONS AND FUTURE ACTIONS.....	10
7.0 REFERENCES	10

Tables

Table 1A – Monitoring Network Well Summary

Table 1B – Non-Network Well Summary

Table 2 – Groundwater Sampling Event Summary for 2018

Table 3A – Summary of Groundwater Elevations – March 2018

Table 3B – Summary of Groundwater Elevations – June 2018

Table 3C – Summary of Groundwater Elevations – September 2018
Table 4A – Groundwater Flow Velocity Calculations – June 2018
Table 4B – Groundwater Flow Velocity Calculations – September 2018
Table 5A – Summary of Groundwater Analytical Data – March 2018
Table 5B – Summary of Groundwater Analytical Data – June 2018
Table 5C – Summary of Groundwater Analytical Data – September 2018
Table 6 – Summary of Background Levels and Groundwater Protection Standards

Figures

Figure 1 – Site Location Map
Figure 2 – Well Location Map
Figure 3 – June 2018 Water Table Contour Map
Figure 4 – September 2018 Water Table Contour Map

Appendices

Appendix A – Laboratory Analytical and Field Sampling Reports
Appendix B – Statistical Analyses

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) 257 Subpart D and the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10, Atlantic Coast Consulting, Inc. (ACC) has prepared this 2018 *Annual Groundwater Monitoring and Corrective Action Report* to document 2018 assessment groundwater monitoring activities conducted at Georgia Power Company's (GPC's) Plant Yates, Ash Ponds 3 and B/B' (Site). Semi-annual monitoring and reporting for the CCR Unit is performed in accordance with the monitoring requirements §257.90 through §257.95 of the Federal CCR rule and the Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a).

Plant Yates, once a coal-fired, power generation facility, was converted to natural-gas-combustion turbines in 2014. Plant Yates is located at 708 Dyer Road, on the east bank of the Chattahoochee River in Coweta County, Georgia near the Coweta and Carroll County line, approximately 8 miles northwest of the city of Newnan and 13 miles southeast of the city of Carrollton. Plant Yates occupies approximately 2,400 acres. Figure 1, Site Location Map, depicts the site location relative to the surrounding area. Figure 2, Well Location Map, depicts the general configuration of the Site and the location of the monitoring wells.

This report documents the activities completed to establish the groundwater monitoring program and actions through the 2018 calendar year in accordance with 40 CFR §257.90(e).

1.1 Regional Geology and Hydrogeologic Setting

Plant Yates lies is located in the Inner Piedmont of western Georgia, immediately southeast of the regional zone of deformation referred to as the Brevard Zone. Rock units at Plant Yates are primarily interlayered gneiss and schists. At ground surface the units have weathered in place to

form a layer of saprolite. The rocks in the area have been subjected to several episodes of metamorphism and intrusion by igneous bodies. Extensive jointing occurs in the area. Surface expressions of the joints are observed on topographic maps and aerial photos of the Plant Yates area.

A thin layer of soil from one to two feet thick overlies a thick layer of saprolite. The saprolite, which extends to typical depths of 20-40 feet below ground surface, was formed from the physical and chemical weathering of the underlying metamorphic rocks. There is typically a zone of variable thickness (approximately 5-20 feet) of transitionally weathered rock between the saprolite and competent bedrock. Localized alluvial soils consisting of generally coarser material (silty-sand, clayey silt, and silty clay with well-rounded gravel and cobbles) than that observed in saprolite may be related to historical river channel migration.

At Plant Yates, groundwater is typically encountered slightly above the saprolite/weathered rock interface. Rock becomes increasingly competent with depth and movement of groundwater occurs only in fractures (i.e. secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of soil/saprolite, or by direct entrance through openings in outcrops. The average depth of the water table at Plant Yates varies with topography, ranging from approximately 5 to 50 feet below ground surface. The water table occurs in the saprolite and in the transitionally weathered zone, at least several feet above the top of rock.

Hydraulic conductivity is defined as the rate at which water can move through a permeable medium. In situ rising-head and falling-head slug tests were performed at multiple locations on the site. The range in hydraulic conductivity at these locations was very low, indicating a fairly uniform medium across the saprolite and weathered rock horizon (typically range from 10^{-3} to 10^{-4} cm/sec). The values from the field test fall within the standard range of hydraulic conductivity values associated with a silty sand.

The bedrock becomes increasingly more competent with depth and thus, groundwater flow occurs mostly through fractures (i.e. secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of residuum/saprolite, or by direct entrance through openings in outcrops.

Groundwater flow across the Site is from both the south-southeast to north-northwest and from northeast to southwest as illustrated in Figure 3, June 2018 Water Table Contour Map and Figure 4, September 2018 Water Table Contour Map.

1.2 Groundwater Monitoring System and CCR Units

Pursuant to §257.91, a multi-unit groundwater monitoring system was installed within the uppermost aquifer at the Site. The multi-unit monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Units within the uppermost aquifer beneath the CCR units, AP-3 and B/B'. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction (Table 1A, Monitoring Network Well Summary, and Table 1B, Non-Network Well Summary). The monitoring well network was certified by a Professional Engineer in Georgia on October 17, 2017, and the certification is maintained in the Operating Record pursuant to §257.90(f)(6).

Wells suffixed with an "S" are installed in overburden (saprolitic soil), an "I" indicates partially weathered rock (transition zone), and "D" indicates upper bedrock. As typical of the Piedmont Physiographic Province, there is a high degree of connectivity between the overburden, partially weathered rock, fractured bedrock, and the materials comprise a single uppermost aquifer.

Thus, the monitoring system is designed to monitor groundwater flow through the overburden zone, transition zone, and upper bedrock as a single, interconnected aquifer system. The monitoring well network for the Site is provided on Figure 2, Well Location Map.

2.0 GROUNDWATER MONITORING ACTIVITIES

As required by 40 CFR §257.90(e), the following describes monitoring-related activities performed in 2018 and discusses any status changes of the monitoring program. All groundwater sampling was performed in accordance with §257.93. Samples were collected from each well in the certified monitoring system shown on Figure 2, Well Location Map.

Pursuant to §257.90(e)(3), Table 2, Groundwater Sampling Event Summary for 2018, presents a summary of groundwater sampling events completed at the Site during 2018. Groundwater events were conducted at the Site during March 2018, June 2018 and October 2018. During the March 2018 event, groundwater samples were collected and analyzed for Appendix IV constituents to meet the requirement of §257.95(b). During the June and October 2018 semi-annual sampling events, groundwater samples were collected for both Appendix III and the Appendix IV constituents detected during the March 2018 event at each detection monitoring well. Results of sampling activities conducted in 2018 are presented in Appendix A, Laboratory Analytical and Field Sampling Reports.

2.1 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2018; the network remained the same as in the 2017 (previous) reporting year. Monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to provide safe access for sampling.

In September 2018 one additional well (YAMW-1) was installed to further characterize hydrogeologic conditions in the vicinity of well YGWC-33S. Details regarding the well are included on Table 1B and the location presented on Figure 2. Installation of this well will be documented in the facility Operating Record pursuant to 40 CFR §257.91(e)(1).

2.2 Assessment Monitoring

Based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, an assessment monitoring program was implemented on January 15, 2018. A notice of assessment monitoring was placed in the operation record on May 15, 2018.

Monitoring wells were sampled for Appendix IV parameters in March 2018 as the initial assessment monitoring event. Monitoring wells were sampled for Appendix III and detected Appendix IV parameters in June and September 2018. The June 2018 event was conducted within 90 days of obtaining the results from the March 2018 sampling event. Samples were collected from wells in the Professional Engineer (PE)-certified monitoring systems shown on Figure 2. A summary of groundwater sampling events completed in 2018 is provided in Table 2.

2.3 Other Groundwater Sampling

To further characterize groundwater quality at the site, newly-installed well YAMW-1 and existing well PZ-35 were sampled in October 2018 for Appendix III and detected Appendix IV parameters. Well locations are presented on Figure 2. Sampling and analysis were performed following the

procedures described in Section 3.0. Analytical results from the additional sampling are included in Appendix A.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to conduct groundwater monitoring at the Site.

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each assessment sampling event, groundwater elevations were recorded from piezometers and each well in the network. Groundwater elevations recorded during the background and detection monitoring events are summarized in Tables 3A, 3B, and 3C, Summary of Groundwater Elevations – March 2018, June 2018, and September 2018, respectively. Groundwater elevation data was used to develop potentiometric surface elevation contour maps (Figure 3, June 2018 – Water Table Contour Map and Figure 4, September 2018 – Water Table Contour Map). The general direction of groundwater flow across the site is towards the west. The groundwater flow patterns observed during the 2018 monitoring events are consistent with historical patterns.

The groundwater flow velocity at Plant Yates was calculated using a derivation of Darcy's Law.

Specifically:

Equation

$$v = \frac{k (dh/dl)}{P_e} \quad \text{where:}$$

v = ground water velocity
 k = hydraulic conductivity
 dh/dl = hydraulic gradient
 P_e = effective porosity

Groundwater flow velocities were calculated for the site based on hydraulic gradients, average permeability based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). Groundwater flow velocities have been calculated and are tabulated on Tables 4A and 4B, Groundwater Flow Velocity Calculations – June 2018 and September 2018, respectively. The calculated flow velocity ranges between 0.010 to 0.40 feet per day or 4.0 to 153 feet per year.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR §257.93(a). Purging and sampling was primarily performed using bladder pumps dedicated to each well. For wells sampled with peristaltic pumps, tubing was lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). Peristaltic pump samples were collected using new disposable polyethylene tubing. All non-disposable equipment was decontaminated before use and between well locations.

Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, and dissolved oxygen) during well purging to verify stabilization prior to sampling. Turbidity was measured using a Hach 2100Q portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.2 standard units for pH

- $\pm 5\%$ for specific conductance
- DO ± 0.2 milligrams per liter (mg/L) or $\pm 10\%$, whichever is greater. No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 10 nephelometric turbidity units (NTU)

Once stabilization was achieved, samples were collected directly into appropriately-preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Pace Analytical Services, LLC (Pace) of Peachtree Corners, Georgia and Greensburg, Pennsylvania following chain-of-custody protocol. Stabilization logs for each well during each monitoring event are included in Appendix A.

3.3 Laboratory Analyses

Groundwater samples were collected during three groundwater monitoring events in 2018. During the March 2018 sampling event, all wells were sampled and analyzed for Appendix IV monitoring parameters pursuant to 40 CFR §257.95(b). Groundwater samples collected during subsequent semi-annual events in June and September 2018 were analyzed for Appendix III and those Appendix IV parameters detected above the laboratory method detection limit (MDL) during the March 2018 event in accordance with 40 CFR §257.95(d). Parameters not detected above the laboratory MDL included: antimony, chromium, lead, mercury, molybdenum, and thallium. Analytical methods used for groundwater monitoring parameters are provided in laboratory reports in Appendix A.

Analytical data collected in respective 2018 monitoring events (March 2018, June 2018 and September 2018) are summarized in Table 5A, Summary of Groundwater Analytical Data – March 2018, Table 5B, Summary of Groundwater Analytical Data – June 2018, and Table 5C, Summary of Groundwater Analytical Data – September 2018.

Laboratory analyses were performed by Pace. Pace is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed for this project. In addition, Pace is certified to perform analysis by the State of Georgia. Laboratory reports and chain-of-custody records for the monitoring events are presented in Appendix A.

3.4 Quality Assurance and Quality Control Summary

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one QA/QC sample per every 10 groundwater assessment samples. Equipment blanks (where non-dedicated sampling equipment is used) and duplicate samples were collected during each sampling event. QA/QC sample data were evaluated during data validation and are included in Appendix A.

Groundwater quality data in this report was validated in accordance with US EPA guidance (US EPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestions spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using US EPA procedures as guidance (US EPA, 2017).

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (PQL). The

estimated value is positively identified, but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. "J" flagged data are used to establish background statistical limits but are not used when performing statistical analyses.

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR §257.93 and following the appropriate PE-certified method. The statistical method used at the site was developed by MacStat Consulting, Ltd, in accordance with 40 CFR §257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, US EPA 530/R-09-007 (US EPA, 2009). To develop the statistical method, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III parameter. Subsequent detection monitoring results were compared to the statistical limits to determine if concentrations were statistically different from background.

4.1 Statistical Methods

The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations. Although Assessment Monitoring has been implemented, statistical evaluation of Appendix III constituents is performed to determine if constituents have returned to background conditions.

4.1.1 Appendix III Constituents

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for each of the Appendix III parameters except chloride. Monitoring results for chloride were evaluated using intrawell prediction limits combined with a 1-of-3 verification resample plan. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. Intrawell prediction limits are constructed from historical data within a given well, and the most recent sample is compared to background. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified.

4.1.2 Assessment Monitoring Statistics

Parametric tolerance limits were used to calculate background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the groundwater protection standard (GWPS) established under 40 CFR §257.95(h) and GA EPD Rule 391-3-4-.10(6)(a).

As described in 40 CFR §257.95(h)(1-3), the GWPS is:

- (1) The maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title;
- (2) Where an MCL has not been established:

- (i) Cobalt (0.006 mg/L);
 - (ii) Lead (0.015 mg/L)
 - (iii) Lithium (0.040 mg/L);
 - (iv) Molybdenum (0.100 mg/L).
- (3) Background levels for constituents where the background level is higher than the MCL or rule-identified GWPS.

US EPA revised the Federal CCR Rule on July 30, 2018, providing GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR 257.95(h)(2). Presently those updated GWPS have not yet been incorporated in the current GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); and therefore, background concentrations are considered when determining the GWPS for constituents where an MCL has not been established (or where background is higher than the MCL). Under the existing GA EPD rules, the GWPS is:

- (1) The MCL;
- (2) Where an MCL has not been established, the background concentration;
- (3) Background levels for constituents where the background level is higher than the MCL.

Following the above Federal and State rule requirements, GWPS have been established for statistical comparison of Appendix IV constituents. Table 6, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS established under State and Federal rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS established under the State and Federal rules. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard.

4.2 Statistical Analyses Results

Analytical data from the 2018 semiannual monitoring events in June and September were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017). Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established GWPS.

Based on review of the Appendix III statistical analyses presented in Appendix B, Appendix III constituents have not returned to background levels and assessment monitoring should continue pursuant to 40 CFR §257.95(f).

4.2.1 First Semi-Annual Assessment Monitoring Event

Statistical analysis of Appendix IV data identified a single constituent at Statistically Significant Levels (SSLs) above the established GWPS at groundwater monitoring well YGWC-33S. The lower 95% confidence level for beryllium at YGWC-33S statistically exceeds the GWPS of 0.004 mg/L. Since beryllium has an MCL as described above, this GWPS is applicable under both the state and federal rule. This analysis was completed on October 15, 2018. A notification was placed in the operating record pursuant to 40 CFR §257.95(g).

4.2.2 Second Semi-Annual Assessment Monitoring Event

Statistical analysis of Appendix IV data identified the same single SSL of a GWPS that was identified during the first semi-annual event. This analysis was completed on December 17, 2018.

5.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR §257.94(e), an assessment monitoring program was implemented in January 2018. SSLs of Appendix III parameters and SSLs of Appendix IV parameters were identified at Ash Ponds 3 and B-B' during sampling events conducted in 2018. An assessment of corrective measures was implemented on January 13, 2019 in accordance with 40 CFR §257.96.

6.0 CONCLUSIONS AND FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for the Site identified SSLs of Appendix III groundwater monitoring parameters above background and an SSL of beryllium, in well YGWC-33S during sampling events conducted in 2018. The Site will continue assessment monitoring pursuant to §257.95, complete site characterization activities required by §257.95(g)(3) and implement assessment of corrective measures as required by §257.96.

The next scheduled groundwater monitoring event is scheduled for March, 2019.

7.0 REFERENCES

Driscoll, Fletcher G., 1986 *Groundwater and Wells*, Johnson Screens, Saint Paul, Minnesota, 1089 pp.

EPRI, 2015 Technical Report, Groundwater Monitoring Guidance for the Coal Combustion Residuals Rule.

Freeze, R.A. and Cherry, J.A. 1979, *Groundwater*, Prentice-Hall, Englewood Cliffs, New Jersey, 604 pp.

State Waste Management Board. 2016. State Solid Waste Management Regulations – (9VAC20 81 et seq.). January.

MacStat Consulting, Ltd., *Statistical Analysis Plan – Plant Yates Ash Pond 3 and B/B'*. 2017.

US EPA, 1986 RCRA Groundwater Monitoring Technical Enforcement Guidance Document.

US EPA, 1989 Risk Assessment Guidance for Superfund (RAGS), Vol. I: Human Health Evaluation Manual (Part A) (540-1-89-002).

US EPA, 1993. Subpart E, Groundwater Monitoring and Corrective Action, in Chapter 5, Solid Waste Disposal Facility Criteria Technical Manual. EA530-R-93-017.

US EPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

US EPA. 2011. *Data Validation Standard Operating Procedures*. Science and Ecosystem Support Division. Region IV. Athens, GA. September.

US EPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management

System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. [US EPA HQ RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81. April.

US EPA. 2017. National Functional Guidelines for Inorganic Superfund Methods Data Review. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.

TABLES

Table 1A
Monitoring Network Well Summary

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	Hydraulic Location
YGWA-4I	05/21/2014	48.70	735.48	38.70	745.48	Upgradient
YGWA-5I	05/21/2014	57.60	726.93	47.60	736.93	Upgradient
YGWA-5D	05/21/2014	128.80	655.73	78.80	705.73	Upgradient
YGWA-17S	09/10/2015	40.10	742.93	30.10	752.93	Upgradient
YGWA-18S	09/08/2015	40.30	750.23	30.30	760.23	Upgradient
YGWA-18I	09/08/2015	80.00	710.56	70.00	720.56	Upgradient
YGWA-20S	09/29/2015	29.52	737.78	19.52	747.78	Upgradient
YGWA-21I	09/28/2015	80.35	703.27	70.35	713.27	Upgradient
YGWC-23S	09/21/2015	29.79	734.83	19.79	744.83	Downgradient
YGWC-24S	09/16/2015	57.57	706.55	47.57	716.55	Downgradient
YGWC-33S	03/03/2016	38.53	706.01	28.53	716.01	Downgradient
YGWC-36	07/20/2016	55.86	683.67	45.86	693.67	Downgradient

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.

Table 1B
Non-Network Well Summary

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	Hydraulic Location
YGWA-6S	05/19/2014	39.55	742.73	29.55	752.73	Piezometer
YGWA-6I	05/19/2014	69.00	713.58	59.00	723.58	Piezometer
YAMW-1	07/20/2016	68.40	675.73	58.40	685.73	Downgradient
PZ-35	09/19/2018	49.40	694.34	39.40	704.34	Downgradient

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.

Table 2
Groundwater Sampling Event Summary for 2018

Well	Hydraulic Location	Mar. 28-30, 2018	Jun. 5-13, 2018	Sept. 25-27, 2018
Purpose of Sampling Event		Initial Assessment	First Semi-Annual	Second Semi-Annual
YGWA-4I	Upgradient	Initial	A-01	A-02
YGWA-5I	Upgradient	Initial	A-01	A-02
YGWA-5D	Upgradient	Initial	A-01	A-02
YGWA-17S	Upgradient	Initial	A-01	A-02
YGWA-18S	Upgradient	Initial	A-01	A-02
YGWA-18I	Upgradient	Initial	A-01	A-02
YGWA-20S	Upgradient	Initial	A-01	A-02
YGWA-21I	Upgradient	Initial	A-01	A-02
YGWC-23S	Downgradient	Initial	A-01	A-02
YGWC-24S	Downgradient	Initial	A-01	A-02
YGWC-33S	Downgradient	Initial	A-01	A-02
YGWC-36	Downgradient	Initial	A-01	A-02

Notes:

1. Initial = Initial Assessment Event (All Appendix IV)
2. A-XX = Assessment Event Number (Appendix III and Detected Appendix IV)

**Table 3A
Summary of Groundwater Elevations
March 2018**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-4I	784.18	22.88	761.30
YGWA-5I	784.53	19.13	765.40
YGWA-5D	784.53	27.24	757.29
YGWA-6S	782.28	19.80	762.48
YGWA-6I	782.58	20.13	762.45
YGWA-17S	783.03	11.95	771.08
YGWA-18S	790.53	20.19	770.34
YGWA-18I	790.56	23.53	767.03
YGWA-20S	767.30	11.60	755.70
YGWA-21I	783.62	32.24	751.38
YGWC-23S	764.62	14.05	750.57
YGWC-24S	764.12	27.95	736.17
YGWC-33S	744.54	9.75	734.79
YGWC-36	739.53	10.13	729.37
PZ-35	743.74	12.35	731.39

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Depths to water measured March 26-27, 2018.

Table 3B
Summary of Groundwater Elevations
June 2018

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-4I	784.18	22.61	761.57
YGWA-5I	784.53	19.17	765.36
YGWA-5D	784.53	26.76	757.77
YGWA-6S	782.28	19.79	762.49
YGWA-6I	782.58	20.07	762.51
YGWA-17S	783.03	12.55	770.48
YGWA-18S	790.53	20.31	770.22
YGWA-18I	790.56	23.66	766.90
YGWA-20S	767.30	11.87	755.43
YGWA-21I	783.62	32.25	751.37
YGWC-23S	764.62	14.33	750.29
YGWC-24S	764.12	27.94	736.18
YGWC-33S	744.54	10.07	734.47
YGWC-36	739.53	10.18	729.35
PZ-35	743.74	12.66	731.08

Notes:

5. ft BTOC indicates feet below top of casing.
6. ft MSL indicates feet mean sea level.
7. Depths to water measured June 4-5, 2018.

Table 3C
Summary of Groundwater Elevations
September 2018

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-4I	784.18	23.97	760.21
YGWA-5I	784.53	20.61	763.92
YGWA-5D	784.53	26.28	758.25
YGWA-6S	782.28	20.24	762.04
YGWA-6I	782.58	20.53	762.05
YGWA-17S	783.03	14.10	768.93
YGWA-18S	790.53	21.85	768.68
YGWA-18I	790.56	25.03	765.53
YGWA-20S	767.30	12.68	754.62
YGWA-21I	783.62	31.56*	752.06
YGWC-23S	764.62	18.05*	746.57
YGWC-24S	764.12	28.87	735.25
YGWC-33S	744.54	14.66*	729.88
YGWC-36	739.53	10.48*	729.05
PZ-35	743.74	13.22	740.52

Notes:

1. ft BTOC indicates feet below top of casing.
 2. ft MSL indicates feet mean sea level.
 3. Depths to water measured September 17, 2018.
- * Depth to water recorded from transducer reading from 11:00am, September 14, 2018.

Table 4A
GROUNDWATER FLOW VELOCITY CALCULATIONS
June 2018

Equation

$$v = \frac{k (dh/dl)}{P_e} \quad \text{where: } v = \text{ground water velocity}$$

$$k = \text{hydraulic conductivity}$$

$$dh/dl = \text{hydraulic gradient}$$

$$P_e = \text{effective porosity}$$

Values Used in Calculation

Value	Source
$k_{\max} = 3.7E-03$ cm/sec 10 ft/day	See note 1.
$k_{\min} = 9.7E-05$ cm/sec 0.28 ft/day	
$i_1 = 0.005$ unitless $i_2 = 0.009$ unitless $i_{\text{avg}} = 0.007$ unitless	Hydraulic gradient from YGWA-20S to YGWC-33S YGWC-33S to YGWC-36 Average
$P_e = 0.20$ unitless	See note 2.

Minimum Flow Velocity

$$v_{\min} = \frac{(0.28)(0.007)}{0.20}$$

$$v_{\min} = 0.010 \text{ ft/day, or } 3.6 \text{ ft/year}$$

Maximum Flow Velocity

$$v_{\max} = \frac{(10)(0.007)}{0.20}$$

$$v_{\max} = 0.4 \text{ ft/day, or } 137 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Atlantic Coast Consulting, Inc. (2017)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 4B
GROUNDWATER FLOW VELOCITY CALCULATIONS
September 2018

Equation

$$v = \frac{k (dh/dl)}{P_e} \quad \text{where: } v = \text{ground water velocity}$$

$$k = \text{hydraulic conductivity}$$

$$dh/dl = \text{hydraulic gradient}$$

$$P_e = \text{effective porosity}$$

Values Used in Calculation

Value	Source
$k_{\max} = 3.7E-03$ cm/sec 10 ft/day	See note 1.
$k_{\min} = 9.7E-05$ cm/sec 0.28 ft/day	
$i_1 = 0.006$ unitless $i_2 = 0.010$ unitless $i_{\text{avg}} = 0.008$ unitless	Hydraulic gradient from YGWA-20S to YGWC-33S YGWC-33S to YGWC-36 Average
$P_e = 0.20$ unitless	See note 2.

Minimum Flow Velocity

$$v_{\min} = \frac{(0.28)(0.008)}{0.20}$$

$$v_{\min} = 0.011 \text{ ft/day, or } 4 \text{ ft/year}$$

Maximum Flow Velocity

$$v_{\max} = \frac{(10)(0.008)}{0.20}$$

$$v_{\max} = 0.4 \text{ ft/day, or } 153 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Atlantic Coast Consulting, Inc. (2017)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 5A
Summary of Groundwater Analytical Data
March 2018

Substance	MCL/ (SMCL)	YGWA-4I	YGWA-5I	YGWA-5D	YGWA-17S	YGWA-18S	YGWA-18I	YGWA-20S	YGWA-21I	
		3/29/2018	3/29/2018	3/29/2018	3/28/2018	3/28/2018	3/28/2018	3/29/2018	3/29/2018	
Appendix IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	
	Arsenic	0.01	ND	ND	ND (0.00060 J)	ND	ND (0.00061 J)	ND	ND (0.0015 J)	
	Barium	2	0.014	0.021	ND	0.014	0.021	0.024	0.014	ND
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Fluoride	4	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.014 J)	ND (0.0034 J)	ND (0.0058 J)	ND	ND (0.0024 J)	ND (0.0041 J)	ND	ND (0.0062 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.703 U	0.648 U	3.42	0.438 U	0.560 U	0.920 U	1.73	1.91
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5A
Summary of Groundwater Analytical Data
March 2018

Substance	MCL/ (SMCL)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	
		3/30/2018	3/30/2018	3/30/2018	3/30/2018	
Appendix IV	Antimony	0.006	ND	ND	ND	
	Arsenic	0.01	ND	ND	ND (0.0049 J)	
	Barium	2	0.030	0.020	0.012	0.043
	Beryllium	0.004	ND	ND	0.018	ND
	Cadmium	0.005	ND	ND	0.0028	ND
	Chromium	0.1	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	0.013	ND
	Fluoride	4	ND	ND	1.4	ND
	Lead	0.015	ND	ND	ND	ND
	Lithium	N/R	ND (0.0039 J)	ND	ND (0.024 J)	ND (0.0061 J)
	Mercury	0.002	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND
	Radium	5	0.659 U	0.409 U	0.607 U	0.721 U
	Selenium	0.05	0.028	ND	0.011	ND
	Thallium	0.002	ND	ND	ND	ND

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5B
Summary of Groundwater Analytical Data
June 2018

Substance	MCL/ (SMCL)	YGWA-4I	YGWA-5I	YGWA-5D	YGWA-17S	YGWA-18S	YGWA-18I	YGWA-20S	YGWA-21I	
		6/7/2018	6/7/2018	6/6/2018	6/11/2018	6/11/2018	6/7/2018	6/6/2018	6/5/2018	
Appendix III	Boron	N/R	ND (0.0045 J)	ND	ND (0.0098 J)	ND (0.010 J)	ND (0.0093 J)	ND	ND (0.0049 J)	ND (0.0092 J)
	Calcium	N/R	8.2	2.3	26.2	2.1	1.4	4.8	2.3	9.1
	Chloride	(250)	4.4	4.5	4.7	4.9	6.8	6.8	2.7	1.7
	Fluoride	4	ND	ND	ND (0.15 J)	ND	ND	ND	ND	ND (0.13 J)
	Sulfate	(250)	8.5	2.0	8.3	5.2	ND (0.95 J)	ND (0.68 J)	ND (0.049 J)	6.1
	TDS	(500)	90.0	142	151	70.0	74.0	68.0	79.0	109
Appendix IV	Arsenic	0.01	ND (0.00059 J)	ND	ND (0.0013 J)	ND	ND	ND (0.00066 J)	ND	ND (0.0013 J)
	Barium	2	0.014	0.019	ND (0.0080 J)	0.013	0.019	0.023	0.015	0.011
	Beryllium	0.004	ND	ND	ND	ND (0.000090 J)	ND (0.000057 J)	ND	ND (0.000080 J)	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.00058 J)	ND	ND	ND	ND	ND	ND	ND (0.0041 J)
	Lithium	N/R	ND (0.013 J)	ND (0.0032 J)	ND (0.0068 J)	ND	ND (0.0014 J)	ND (0.0032 J)	ND	ND (0.0061 J)
	Radium	5	0.628 U	0.745 U	3.99	0.901 U	0.649 U	0.668 U	0.694 U	1.39
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5B
Summary of Groundwater Analytical Data
June 2018

Substance	MCL/ (SMCL)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	
		6/12/2018	6/12/2018	6/12/2018	6/13/2018	
Appendix III	Boron	N/R	0.90	ND (0.018 J)	9.2	0.25
	Calcium	N/R	4.7	1.8	129	ND (18.7 J)
	Chloride	(250)	1.8	6.2	5.9	5.6
	Fluoride	4	ND	ND	ND (0.18 J)	ND
	Sulfate	(250)	41.4	ND (0.35 J)	759	144
	TDS	(500)	115	79.0	1150	292
Appendix IV	Arsenic	0.01	ND	ND	ND (0.0020 J)	ND (0.00066 J)
	Barium	2	0.024	0.018	0.012	0.046
	Beryllium	0.004	ND (0.000081 J)	ND (0.00012 J)	0.016	ND (0.00035 J)
	Cadmium	0.005	ND	ND	0.0029	ND (0.00019 J)
	Cobalt	N/R	ND	ND	0.014	ND
	Lithium	N/R	ND (0.0017 J)	ND	ND (0.023 J)	ND (0.0065 J)
	Radium	5	1.03 U	0.728 U	0.633 U	1.04 U
	Selenium	0.05	0.026	ND	ND (0.0057 J)	ND (0.0024 J)

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5C
Summary of Groundwater Analytical Data
September 2018

Substance	MCL/ (SMCL)	YGWA-4I	YGWA-5I	YGWA-5D	YGWA-17S	YGWA-18S	YGWA-18I	YGWA-20S	YGWA-21I	
		9/26/2018	9/26/2018	9/26/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	
Appendix III	Boron	N/R	ND (0.0050 J)	ND (0.0057 J)	ND (0.010 J)	ND (0.0096 J)	ND (0.0070 J)	ND (0.0046 J)	ND	ND (0.0054 J)
	Calcium	N/R	ND (9.5 J)	2.3	25.8	2.1	1.0	4.6	2.3	ND (10.4 J)
	Chloride	(250)	4.8	5.1	4.8	5.6	7.8	7.9	3.6	2.2
	Fluoride	4	ND	ND	ND	ND	ND	ND	ND	ND (0.029 J)
	Sulfate	(250)	10.2	2.3	7.9	6.1	1.5	1.0	ND (0.13 J)	7.0
	TDS	(500)	116	86.0	144	86.0	63.0	109	73.0	122
Appendix IV	Arsenic	0.01	ND	ND	ND (0.0014 J)	ND	ND	ND	ND	ND (0.0022 J)
	Barium	2	0.016	0.019	ND (0.0075 J)	0.014	0.019	0.023	0.015	0.011
	Beryllium	0.004	ND	ND	ND	ND (0.000089 J)	ND (0.000082 J)	ND	ND (0.000061 J)	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND (0.000096 J)
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND (0.0044 J)
	Lithium	N/R	ND (0.014 J)	ND (0.0032 J)	ND (0.0065 J)	ND	ND (0.0016 J)	ND (0.0036 J)	ND	ND (0.0062 J)
	Radium	5	0.756 U	0.377 U	2.73	0.680 U	0.574 U	0.141 U	0.772 U	1.62
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5C
Summary of Groundwater Analytical Data
September 2018

Substance	MCL/ (SMCL)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YAMW-1	PZ-35	
		9/27/2018	9/27/2018	9/27/2018	9/27/2018	10/16/2018	10/16/2018	
Appendix III	Boron	N/R	0.71	ND (0.0055 J)	13.4	0.24	0.20	ND (0.031 J)
	Calcium	N/R	4.1	1.7	144	ND (19.8 J)	ND (14.5 J)	6.5
	Chloride	(250)	2.0	6.9	4.7	6.0	12.1	8.5
	Fluoride	4	ND	ND	ND (0.070 J)	ND	ND	ND
	Sulfate	(250)	39.6	ND (0.28 J)	895	160	83.7	34.2
	TDS	(500)	105	59.0	1280	277	209	123
Appendix IV	Arsenic	0.01	ND	ND	ND (0.0048 J)	ND	ND	ND (0.00069 J)
	Barium	2	0.022	0.019	0.012	0.048	0.048	0.063
	Beryllium	0.004	ND (0.000090 J)	ND (0.00014 J)	0.024	ND (0.00032 J)	ND	ND (0.00036 J)
	Cadmium	0.005	ND	ND	0.0028	ND (0.00018 J)	ND (0.00014 J)	ND
	Cobalt	N/R	ND	ND	0.023	ND	0.032	ND
	Lithium	N/R	ND (0.0017 J)	ND	ND (0.034 J)	ND (0.0063 J)	ND (0.0052 J)	ND (0.0011 J)
	Radium	5	1.06 U	0.981	1.38	0.604 U	0.384 U	0.363 U
	Selenium	0.05	0.023	ND	0.016	ND (0.0037 J)	ND (0.0019 J)	ND

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 6
Summary of Background Levels and Groundwater Protection Standards

Constituent	Units	Site Background	Federal GWPS	State GWPS
Arsenic	mg/L	0.0025	0.010	0.010
Barium	mg/L	0.027	2	2
Beryllium	mg/L	0.0015	0.004	0.004
Cadmium	mg/L	0.0013	0.005	0.005
Cobalt	mg/L	0.013	0.013	0.013
Fluoride	mg/L	0.15	4	4
Lithium	mg/L	0.025	0.040	0.025
Radium	pCi/L	6.92	6.92	6.92
Selenium	mg/L	0.005	0.050	0.050

Notes:

1. Site Background = Parametric tolerance limits calculated from pooled upgradient well data.
2. Federal GWPS = Groundwater protection standard, per 257.95(h)(1-3).
3. State GWPS = Groundwater protection standard, per Georgia EPD Rule 391-3-4-.10(6)(a).
4. Units are milligrams per liter (mg/L), except for radium, which are picocuries per liter (pCi/L).

FIGURES

P:\Industrial\054 - Southern Company\110 - Groundwater Consulting Services 2018 - 2021\Plant Yates\2 - Annual COR Reports\2018\Ash Ponds 3 & B-B\Figures\Plant Yates Site Location Map.dwg 2018-12-10 MATT MALONE



ATLANTIC COAST CONSULTING, INC.
630 Colonial Park Dr.
Suite 110
Roswell, GA 30075
o 770.594.5998
www.atlcc.net

PROJECT:
PLANT YATES
ASH PONDS 3 & B-B'

708 DYER ROAD
NEWNAN, GEORGIA

REVISIONS

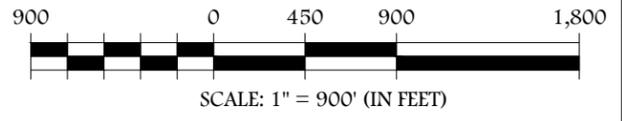
Drawn by: MM Checked by: EP

PROJECT NUMBER:
I054-110
December 2018

SITE LOCATION
MAP

FIGURE 1

NOTE:
1. AERIAL PHOTOGRAPH DATED
NOVEMBER 2012.



APPENDICES

APPENDIX A

LABORATORY ANALYTICAL AND FIELD SAMPLING
REPORTS

April 18, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 263338

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 28, 2018. 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,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

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

Texas Certification #: T104704397-08-TX

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

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263338001	YGWA-18S	Water	03/28/18 12:20	03/28/18 17:15
263338002	YGWA-18S	Water	03/28/18 12:20	03/28/18 17:15
263338003	YGWA-18I	Water	03/28/18 13:10	03/28/18 17:15
263338004	YGWA-18I	Water	03/28/18 13:10	03/28/18 17:15
263338005	YGWA-17S	Water	03/28/18 14:35	03/28/18 17:15
263338006	YGWA-17S	Water	03/28/18 14:35	03/28/18 17:15
263338007	FB-1-3-28-18	Water	03/28/18 12:00	03/28/18 17:15
263338008	FB-1-3-28-18	Water	03/28/18 12:00	03/28/18 17:15

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds
Pace Project No.: 263338

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263338001	YGWA-18S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263338002	YGWA-18S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263338003	YGWA-18I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263338004	YGWA-18I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263338005	YGWA-17S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263338006	YGWA-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263338007	FB-1-3-28-18	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263338008	FB-1-3-28-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: YGWA-18S		Lab ID: 263338001		Collected: 03/28/18 12:20		Received: 03/28/18 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 14:11	7440-36-0	
Arsenic	0.00061J	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 14:11	7440-38-2	
Barium	0.021	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 14:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 14:11	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 14:11	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 14:11	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 14:11	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 14:11	7439-92-1	
Lithium	0.0024J	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 14:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 14:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 14:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 14:11	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 17:10	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/02/18 22:05	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: YGWA-18I		Lab ID: 263338003		Collected: 03/28/18 13:10		Received: 03/28/18 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 14:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 14:46	7440-38-2	
Barium	0.024	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 14:46	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 14:46	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 14:46	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 14:46	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 14:46	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 14:46	7439-92-1	
Lithium	0.0041J	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 14:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 14:46	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 14:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 14:46	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 17:12	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/02/18 22:26	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: YGWA-17S		Lab ID: 263338005		Collected: 03/28/18 14:35		Received: 03/28/18 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 14:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 14:51	7440-38-2	
Barium	0.014	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 14:51	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 14:51	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 14:51	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 14:51	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 14:51	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 14:51	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 14:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 14:51	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 14:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 14:51	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 17:14	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/02/18 22:46	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: FB-1-3-28-18		Lab ID: 263338007		Collected: 03/28/18 12:00		Received: 03/28/18 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 14:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 14:57	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 14:57	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 14:57	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 14:57	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 14:57	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 14:57	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 14:57	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 14:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 14:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 14:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 14:57	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 17:17	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/02/18 23:07	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

QC Batch: 3611 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 263338001, 263338003, 263338005, 263338007

METHOD BLANK: 18413 Matrix: Water
 Associated Lab Samples: 263338001, 263338003, 263338005, 263338007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/06/18 16:27	

LABORATORY CONTROL SAMPLE: 18414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0024	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19801 19802

Parameter	Units	263336001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0026	0.0026	104	105	75-125	1	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 263338

QC Batch: 3540 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 263338001, 263338003, 263338005, 263338007

METHOD BLANK: 18161 Matrix: Water
Associated Lab Samples: 263338001, 263338003, 263338005, 263338007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/03/18 13:26	
Arsenic	mg/L	ND	0.0050	0.00057	04/03/18 13:26	
Barium	mg/L	ND	0.010	0.00078	04/03/18 13:26	
Beryllium	mg/L	ND	0.0030	0.000050	04/03/18 13:26	
Cadmium	mg/L	ND	0.0010	0.000093	04/03/18 13:26	
Chromium	mg/L	ND	0.010	0.0016	04/03/18 13:26	
Cobalt	mg/L	ND	0.010	0.00052	04/03/18 13:26	
Lead	mg/L	ND	0.0050	0.00027	04/03/18 13:26	
Lithium	mg/L	ND	0.050	0.00097	04/03/18 13:26	
Molybdenum	mg/L	ND	0.010	0.0019	04/03/18 13:26	
Selenium	mg/L	ND	0.010	0.0014	04/03/18 13:26	
Thallium	mg/L	ND	0.0010	0.00014	04/03/18 13:26	

LABORATORY CONTROL SAMPLE: 18162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	101	80-120	
Arsenic	mg/L	.1	0.099	99	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.097	97	80-120	
Cadmium	mg/L	.1	0.095	95	80-120	
Chromium	mg/L	.1	0.10	101	80-120	
Cobalt	mg/L	.1	0.10	100	80-120	
Lead	mg/L	.1	0.094	94	80-120	
Lithium	mg/L	.1	0.096	96	80-120	
Molybdenum	mg/L	.1	0.10	102	80-120	
Selenium	mg/L	.1	0.096	96	80-120	
Thallium	mg/L	.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18163 18164

Parameter	Units	263338001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Spike Conc.						
Antimony	mg/L	ND	.1	.1	0.099	0.099	99	99	75-125	0	20	
Arsenic	mg/L	0.00061J	.1	.1	0.096	0.096	95	95	75-125	0	20	
Barium	mg/L	0.021	.1	.1	0.12	0.12	96	95	75-125	1	20	
Beryllium	mg/L	ND	.1	.1	0.099	0.10	99	101	75-125	2	20	
Cadmium	mg/L	ND	.1	.1	0.096	0.095	96	95	75-125	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Parameter	Units	18163		18164		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		263338001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Chromium	mg/L	ND	.1	.1	0.10	0.11	103	104	75-125	2	20	
Cobalt	mg/L	ND	.1	.1	0.10	0.10	102	99	75-125	2	20	
Lead	mg/L	ND	.1	.1	0.096	0.093	96	93	75-125	3	20	
Lithium	mg/L	0.0024J	.1	.1	0.098	0.10	96	97	75-125	1	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.10	103	101	75-125	2	20	
Selenium	mg/L	ND	.1	.1	0.093	0.095	92	94	75-125	2	20	
Thallium	mg/L	ND	.1	.1	0.098	0.093	97	93	75-125	4	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

QC Batch: 3544 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 263338001, 263338003, 263338005, 263338007

METHOD BLANK: 18185 Matrix: Water
 Associated Lab Samples: 263338001, 263338003, 263338005, 263338007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/02/18 14:10	

LABORATORY CONTROL SAMPLE: 18186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.1	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18187 18188

Parameter	Units	263336001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	9.2	9.4	92	94	90-110	2	15	

MATRIX SPIKE SAMPLE: 18189

Parameter	Units	263336003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	9.8	98	90-110	

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

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: YGWA-18S **Lab ID: 263338002** Collected: 03/28/18 12:20 Received: 03/28/18 17:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.182 ± 0.119 (0.181) C:94% T:NA	pCi/L	04/09/18 09:28	13982-63-3	
Radium-228	EPA 9320	0.378 ± 0.352 (0.715) C:68% T:81%	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	0.560 ± 0.471 (0.896)	pCi/L	04/16/18 15:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: YGWA-181 **Lab ID: 263338004** Collected: 03/28/18 13:10 Received: 03/28/18 17:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.347 ± 0.163 (0.186) C:85% T:NA	pCi/L	04/09/18 09:28	13982-63-3	
Radium-228	EPA 9320	0.573 ± 0.391 (0.747) C:69% T:82%	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	0.920 ± 0.554 (0.933)	pCi/L	04/16/18 15:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: YGWA-17S **Lab ID: 263338006** Collected: 03/28/18 14:35 Received: 03/28/18 17:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.246 ± 0.134 (0.172) C:86% T:NA	pCi/L	04/09/18 09:28	13982-63-3	
Radium-228	EPA 9320	0.192 ± 0.435 (0.966) C:65% T:68%	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	0.438 ± 0.569 (1.14)	pCi/L	04/16/18 15:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

Sample: FB-1-3-28-18 **Lab ID: 263338008** Collected: 03/28/18 12:00 Received: 03/28/18 17:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.295 ± 0.163 (0.234) C:79% T:NA	pCi/L	04/09/18 09:28	13982-63-3	
Radium-228	EPA 9320	-0.0916 ± 0.367 (0.878) C:66% T:76%	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	0.295 ± 0.530 (1.11)	pCi/L	04/16/18 15:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

QC Batch:	293334	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	263338002, 263338004, 263338006, 263338008		

METHOD BLANK:	1435520	Matrix:	Water
Associated Lab Samples:	263338002, 263338004, 263338006, 263338008		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.451 ± 0.388 (0.783) C:77% T:72%	pCi/L	04/10/18 10:18	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

QC Batch: 293407 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 263338002, 263338004, 263338006, 263338008

METHOD BLANK: 1436214 Matrix: Water

Associated Lab Samples: 263338002, 263338004, 263338006, 263338008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.143 ± 0.102 (0.146) C:89% T:NA	pCi/L	04/09/18 07:47	

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds

Pace Project No.: 263338

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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 263338

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263338001	YGWA-18S	EPA 3005A	3540	EPA 6020B	3662
263338003	YGWA-18I	EPA 3005A	3540	EPA 6020B	3662
263338005	YGWA-17S	EPA 3005A	3540	EPA 6020B	3662
263338007	FB-1-3-28-18	EPA 3005A	3540	EPA 6020B	3662
263338001	YGWA-18S	EPA 7470A	3611	EPA 7470A	3902
263338003	YGWA-18I	EPA 7470A	3611	EPA 7470A	3902
263338005	YGWA-17S	EPA 7470A	3611	EPA 7470A	3902
263338007	FB-1-3-28-18	EPA 7470A	3611	EPA 7470A	3902
263338002	YGWA-18S	EPA 9315	293407		
263338004	YGWA-18I	EPA 9315	293407		
263338006	YGWA-17S	EPA 9315	293407		
263338008	FB-1-3-28-18	EPA 9315	293407		
263338002	YGWA-18S	EPA 9320	293334		
263338004	YGWA-18I	EPA 9320	293334		
263338006	YGWA-17S	EPA 9320	293334		
263338008	FB-1-3-28-18	EPA 9320	293334		
263338002	YGWA-18S	Total Radium Calculation	294834		
263338004	YGWA-18I	Total Radium Calculation	294834		
263338006	YGWA-17S	Total Radium Calculation	294834		
263338008	FB-1-3-28-18	Total Radium Calculation	294834		
263338001	YGWA-18S	EPA 300.0	3544		
263338003	YGWA-18I	EPA 300.0	3544		
263338005	YGWA-17S	EPA 300.0	3544		
263338007	FB-1-3-28-18	EPA 300.0	3544		

REPORT OF LABORATORY ANALYSIS

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



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.ast-lab.com

PAGE: | OF

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham Heath McCorkle REQUESTED COMPLETION DATE: laburch@southerncco.com		PROJECT NAME/STATE: Plant Yates - Ash Pond 3	
PROJECT #: Phase 2 CCR		ANALYSIS REQUESTED			
CONTAINER TYPE: PRESERVATION	P P P P P 3 7 3	CONTAINER TYPE: PRESERVATION	P P P P P 3 7 3	CONTAINER TYPE: PRESERVATION	P P P P P 3 7 3
CONTAINERS		CONTAINERS			
Collection DATE	Collection TIME	MATRIX CODE	SAMPLE IDENTIFICATION	Mebris App IV (EP 6020/7470)	Floude (SM-846 9315/9320)
3-28-18	1220	6w	Y6WA-18S	✓	✓
3-28-18	1310	6w	Y6WA-18I	✓	✓
3-28-18	1435	6w	Y6WA-17S	✓	✓
3-28-18	1200	6w	F13-13-28-18	✓	✓
SAMPLED BY AND TITLE: R. W. L...		DATE/TIME: 3-28-18 1500	RELINQUISHED BY:	DATE/TIME: 3-28-18 1715	LAB #: 263338
RECEIVED BY:		DATE/TIME:	RELINQUISHED BY:	DATE/TIME:	FOR LAB USE ONLY
RECEIVED BY LAB: R. W. L...		DATE/TIME: 3/28/18 1715	RECEIVED BY:	DATE/TIME:	ENTERED INTO LIMS: Tracking #:
pH tested: Yes	Temp.: 0.1	Loc.: NA	Seal: Intact	Broken: Not Present	Other: FS

WO#: 263338

263338

Yates Ash Pond 3 - Blank COCs.xlsx

Sample Condition Upon Receipt



Client Name: GIA Power

Project # _____

WO#: 263338

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

PM: BM Due Date: 04/05/18

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.1

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/28/18 MR

Temp should be above freezing to 6°C

Comments: _____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Reinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace 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	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix:	<u>GIW</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):	_____		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

April 24, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 263448

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2018. 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,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

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

Texas Certification #: T104704397-08-TX

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

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263448001	YGWA-5D	Water	03/29/18 09:50	03/31/18 11:15
263448002	YGWA-5D	Water	03/29/18 09:50	03/31/18 11:15
263448003	YGWA-5I	Water	03/29/18 11:45	03/31/18 11:15
263448004	YGWA-5I	Water	03/29/18 11:45	03/31/18 11:15
263448005	YGWA-4I	Water	03/29/18 13:40	03/31/18 11:15
263448006	YGWA-4I	Water	03/29/18 13:40	03/31/18 11:15
263448007	EB-2-3-29-18	Water	03/29/18 13:20	03/31/18 11:15
263448008	EB-2-3-29-18	Water	03/29/18 13:20	03/31/18 11:15
263448009	FB-3-3-29-18	Water	03/29/18 15:10	03/31/18 11:15
263448010	FB-3-3-29-18	Water	03/29/18 15:10	03/31/18 11:15
263448011	YGWC-29I	Water	03/29/18 15:30	03/31/18 11:15
263448012	YGWC-29I	Water	03/29/18 15:30	03/31/18 11:15
263448013	Dup-2	Water	03/29/18 00:00	03/31/18 11:15
263448014	Dup-2	Water	03/29/18 00:00	03/31/18 11:15
263448015	Dup-3	Water	03/29/18 00:00	03/31/18 11:15
263448016	Dup-3	Water	03/29/18 00:00	03/31/18 11:15
263448017	YGWA-20S	Water	03/29/18 13:56	03/31/18 11:15
263448018	YGWA-20S	Water	03/29/18 13:56	03/31/18 11:15
263448019	YGWA-21I	Water	03/29/18 11:50	03/31/18 11:15
263448020	YGWA-21I	Water	03/29/18 11:50	03/31/18 11:15
263448021	YGWC-23S	Water	03/30/18 09:01	03/31/18 11:15
263448022	YGWC-23S	Water	03/30/18 09:01	03/31/18 11:15
263448023	YGWC-33S	Water	03/30/18 11:22	03/31/18 11:15
263448024	YGWC-33S	Water	03/30/18 11:22	03/31/18 11:15
263448025	FB-4-3-30-18	Water	03/30/18 11:40	03/31/18 11:15
263448026	FB-4-3-30-18	Water	03/30/18 11:40	03/31/18 11:15
263448027	YGWC-36	Water	03/30/18 10:55	03/31/18 11:15
263448028	YGWC-36	Water	03/30/18 10:55	03/31/18 11:15
263448029	YGWC-24S	Water	03/30/18 12:00	03/31/18 11:15
263448030	YGWC-24S	Water	03/30/18 12:00	03/31/18 11:15
263448031	EB-3-3-30-18	Water	03/30/18 11:40	03/31/18 11:15
263448032	EB-3-3-30-18	Water	03/30/18 11:40	03/31/18 11:15

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds
Pace Project No.: 263448

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263448001	YGWA-5D	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448002	YGWA-5D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448003	YGWA-5I	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263448004	YGWA-5I	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
263448005	YGWA-4I	EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448006	YGWA-4I	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448007	EB-2-3-29-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448008	EB-2-3-29-18	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263448009	FB-3-3-29-18	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448010	FB-3-3-29-18	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448011	YGWC-29I	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
263448012	YGWC-29I	EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448013	Dup-2	EPA 6020B	CSW	12	PASI-GA

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds
Pace Project No.: 263448

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263448014	Dup-2	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448015	Dup-3	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448016	Dup-3	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448017	YGWA-20S	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448018	YGWA-20S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448019	YGWA-21I	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448020	YGWA-21I	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448021	YGWC-23S	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448022	YGWC-23S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448023	YGWC-33S	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448024	YGWC-33S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448025	FB-4-3-30-18	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263448026	FB-4-3-30-18	EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448027	YGWC-36	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448028	YGWC-36	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448029	YGWC-24S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263448030	YGWC-24S	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
263448031	EB-3-3-30-18	EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448032	EB-3-3-30-18	Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-5D		Lab ID: 263448001		Collected: 03/29/18 09:50		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:21	7440-36-0	
Arsenic	0.00060J	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:21	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:21	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:21	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:21	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:21	7439-92-1	
Lithium	0.0058J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:21	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:35	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 05:37	16984-48-8	M1

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-5I		Lab ID: 263448003		Collected: 03/29/18 11:45		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:44	7440-38-2	
Barium	0.021	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:44	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:44	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:44	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:44	7439-92-1	
Lithium	0.0034J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:44	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:24	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 06:40	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-4I		Lab ID: 263448005		Collected: 03/29/18 13:40		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:50	7440-38-2	
Barium	0.014	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:50	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:50	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:50	7439-92-1	
Lithium	0.014J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:50	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:37	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 07:01	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: EB-2-3-29-18		Lab ID: 263448007		Collected: 03/29/18 13:20		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:55	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:55	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:55	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:55	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:55	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:40	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 07:22	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: FB-3-3-29-18		Lab ID: 263448009		Collected: 03/29/18 15:10		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:01	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:01	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:01	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:01	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:01	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:01	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:42	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 07:44	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-29I		Lab ID: 263448011		Collected: 03/29/18 15:30		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:34	7440-38-2	
Barium	0.055	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:34	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:34	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:34	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:34	7439-92-1	
Lithium	0.0049J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:34	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:49	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 08:05	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: Dup-2		Lab ID: 263448013		Collected: 03/29/18 00:00		Received: 03/31/18 11:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:39	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:39	7440-38-2		
Barium	0.021	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:39	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:39	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:39	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:39	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:39	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:39	7439-92-1		
Lithium	0.0036J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:39	7439-93-2		
Molybdenum	0.0021J	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:39	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:39	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:39	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:52	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 08:26	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: Dup-3		Lab ID: 263448015		Collected: 03/29/18 00:00		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:45	7440-38-2	
Barium	0.013	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:45	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:45	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:45	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:45	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:45	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:54	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 08:47	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 263448

Sample: YGWA-20S		Lab ID: 263448017		Collected: 03/29/18 13:56		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:51	7440-38-2	
Barium	0.014	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:51	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:51	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:51	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:51	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:51	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:51	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:51	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:51	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:56	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 10:33	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-211		Lab ID: 263448019		Collected: 03/29/18 11:50		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:57	7440-36-0	
Arsenic	0.0015J	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:57	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:57	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:57	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:57	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:57	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:57	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:57	7439-92-1	
Lithium	0.0062J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:57	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:59	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 11:15	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-23S		Lab ID: 263448021		Collected: 03/30/18 09:01		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:02	7440-38-2	
Barium	0.030	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:02	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:02	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:02	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:02	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:02	7439-92-1	
Lithium	0.0039J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:02	7439-98-7	
Selenium	0.028	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:02	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:01	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 11:37	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-33S		Lab ID: 263448023		Collected: 03/30/18 11:22	Received: 03/31/18 11:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:08	7440-36-0		
Arsenic	0.0049J	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:08	7440-38-2		
Barium	0.012	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:08	7440-39-3		
Beryllium	0.018	mg/L	0.015	0.00025	5	04/04/18 10:34	04/06/18 13:36	7440-41-7		
Cadmium	0.0028	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:08	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:08	7440-47-3		
Cobalt	0.013	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:08	7440-48-4		
Lead	ND	mg/L	0.025	0.0014	5	04/04/18 10:34	04/06/18 13:36	7439-92-1	D3	
Lithium	0.024J	mg/L	0.25	0.0049	5	04/04/18 10:34	04/06/18 13:36	7439-93-2	D3	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:08	7439-98-7		
Selenium	0.011	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:08	7782-49-2		
Thallium	ND	mg/L	0.0050	0.00071	5	04/04/18 10:34	04/06/18 13:36	7440-28-0	D3	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:03	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	1.4	mg/L	0.30	0.029	1		04/05/18 11:58	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: FB-4-3-30-18		Lab ID: 263448025		Collected: 03/30/18 11:40		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:14	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:14	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:14	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:14	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:14	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:14	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:06	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 12:19	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-36		Lab ID: 263448027		Collected: 03/30/18 10:55		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:19	7440-38-2	
Barium	0.043	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:19	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:19	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:19	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:19	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:19	7439-92-1	
Lithium	0.0061J	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:19	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:08	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 12:40	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 263448

Sample: YGWC-24S		Lab ID: 263448029		Collected: 03/30/18 12:00		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:25	7440-38-2	
Barium	0.020	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:25	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:25	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:25	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:25	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:25	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:25	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:25	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:11	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 13:01	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: EB-3-3-30-18		Lab ID: 263448031		Collected: 03/30/18 11:40		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:55	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:55	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:55	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:55	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:55	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:18	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 13:22	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 263448

QC Batch: 3616 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

METHOD BLANK: 18425 Matrix: Water
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/06/18 15:19	

LABORATORY CONTROL SAMPLE: 18426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19655 19656

Parameter	Units	263448003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0023	0.0020	93	81	75-125	14	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

QC Batch: 3707 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3005A Analysis Description: 6020B MET
 Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

METHOD BLANK: 18765 Matrix: Water
 Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/05/18 14:10	
Arsenic	mg/L	ND	0.0050	0.00057	04/05/18 14:10	
Barium	mg/L	ND	0.010	0.00078	04/05/18 14:10	
Beryllium	mg/L	ND	0.0030	0.000050	04/05/18 14:10	
Cadmium	mg/L	ND	0.0010	0.000093	04/05/18 14:10	
Chromium	mg/L	ND	0.010	0.0016	04/05/18 14:10	
Cobalt	mg/L	ND	0.010	0.00052	04/05/18 14:10	
Lead	mg/L	ND	0.0050	0.00027	04/05/18 14:10	
Lithium	mg/L	ND	0.050	0.00097	04/05/18 14:10	
Molybdenum	mg/L	ND	0.010	0.0019	04/05/18 14:10	
Selenium	mg/L	ND	0.010	0.0014	04/05/18 14:10	
Thallium	mg/L	ND	0.0010	0.00014	04/05/18 14:10	

LABORATORY CONTROL SAMPLE: 18766

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	100	80-120	
Arsenic	mg/L	.1	0.096	96	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.10	100	80-120	
Cadmium	mg/L	.1	0.10	101	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	100	80-120	
Lead	mg/L	.1	0.10	100	80-120	
Lithium	mg/L	.1	0.11	106	80-120	
Molybdenum	mg/L	.1	0.10	101	80-120	
Selenium	mg/L	.1	0.098	98	80-120	
Thallium	mg/L	.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18767 18768

Parameter	Units	263448001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result						
Antimony	mg/L	ND	.1	.1	0.098	0.097	98	96	75-125	1	20	
Arsenic	mg/L	0.00060J	.1	.1	0.096	0.096	96	96	75-125	0	20	
Barium	mg/L	ND	.1	.1	0.11	0.10	98	96	75-125	2	20	
Beryllium	mg/L	ND	.1	.1	0.097	0.094	97	94	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18767		18768		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		263448001 Result	MS Spike Conc.	MSD Spike Conc.									
Cadmium	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	1	20		
Chromium	mg/L	ND	.1	.1	0.097	0.095	97	95	75-125	3	20		
Cobalt	mg/L	ND	.1	.1	0.098	0.095	98	95	75-125	3	20		
Lead	mg/L	ND	.1	.1	0.098	0.095	98	95	75-125	4	20		
Lithium	mg/L	0.0058J	.1	.1	0.10	0.099	97	93	75-125	4	20		
Molybdenum	mg/L	ND	.1	.1	0.10	0.099	100	97	75-125	2	20		
Selenium	mg/L	ND	.1	.1	0.099	0.097	99	97	75-125	2	20		
Thallium	mg/L	ND	.1	.1	0.10	0.098	100	98	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 263448

QC Batch: 3754 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

METHOD BLANK: 18952 Matrix: Water
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/05/18 04:15	

LABORATORY CONTROL SAMPLE: 18953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18954 18955

Parameter	Units	263448001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	9.7	9.6	95	94	90-110	1	15	

MATRIX SPIKE SAMPLE: 18956

Parameter	Units	263448001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	9.1	89	90-110 M1	

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

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-5D **Lab ID: 263448002** Collected: 03/29/18 09:50 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.70 ± 0.707 (0.549) C:89% T:NA	pCi/L	04/11/18 09:11	13982-63-3	
Radium-228	EPA 9320	0.720 ± 0.367 (0.626) C:78% T:84%	pCi/L	04/10/18 12:56	15262-20-1	
Total Radium	Total Radium Calculation	3.42 ± 1.07 (1.18)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-5I **Lab ID: 263448004** Collected: 03/29/18 11:45 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.353 ± 0.221 (0.284) C:92% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	0.295 ± 0.284 (0.576) C:80% T:85%	pCi/L	04/10/18 12:57	15262-20-1	
Total Radium	Total Radium Calculation	0.648 ± 0.505 (0.860)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-4I **Lab ID: 263448006** Collected: 03/29/18 13:40 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.703 ± 0.320 (0.347) C:84% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	-0.457 ± 0.415 (1.09) C:77% T:75%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	0.703 ± 0.735 (1.44)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: EB-2-3-29-18 **Lab ID: 263448008** Collected: 03/29/18 13:20 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.169 ± 0.185 (0.362) C:93% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	0.401 ± 0.471 (0.988) C:75% T:80%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	0.570 ± 0.656 (1.35)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: FB-3-3-29-18 **Lab ID: 263448010** Collected: 03/29/18 15:10 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.314 ± 0.220 (0.338) C:94% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	0.368 ± 0.444 (0.932) C:77% T:75%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	0.682 ± 0.664 (1.27)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-291 **Lab ID: 263448012** Collected: 03/29/18 15:30 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.631 ± 0.294 (0.331) C:92% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	0.734 ± 0.524 (0.999) C:72% T:80%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	1.37 ± 0.818 (1.33)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: Dup-2 **Lab ID: 263448014** Collected: 03/29/18 00:00 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.395 ± 0.257 (0.407) C:93% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	0.624 ± 0.543 (1.08) C:69% T:73%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	1.02 ± 0.800 (1.49)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: Dup-3 **Lab ID: 263448016** Collected: 03/29/18 00:00 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.137 ± 0.185 (0.391) C:92% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	0.646 ± 0.487 (0.944) C:78% T:80%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	0.783 ± 0.672 (1.34)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-20S **Lab ID: 263448018** Collected: 03/29/18 13:56 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.490 ± 0.263 (0.343) C:97% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	1.24 ± 0.616 (1.06) C:76% T:79%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	1.73 ± 0.879 (1.40)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.03 ± 0.393 (0.364) C:86% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	0.879 ± 0.587 (1.12) C:79% T:76%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	1.91 ± 0.980 (1.48)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-23S **Lab ID: 263448022** Collected: 03/30/18 09:01 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.444 ± 0.250 (0.295) C:84% T:NA	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	0.215 ± 0.447 (0.988) C:75% T:85%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	0.659 ± 0.697 (1.28)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-33S **Lab ID: 263448024** Collected: 03/30/18 11:22 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.607 ± 0.287 (0.323) C:89% T:NA	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	-0.0132 ± 0.429 (1.01) C:78% T:78%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	0.607 ± 0.716 (1.33)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: FB-4-3-30-18 **Lab ID: 263448026** Collected: 03/30/18 11:40 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.162 ± 0.178 (0.348) C:91% T:NA	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	0.268 ± 0.417 (0.901) C:80% T:81%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	0.430 ± 0.595 (1.25)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-36 **Lab ID: 263448028** Collected: 03/30/18 10:55 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.414 ± 0.246 (0.340) C:92% T:NA	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	0.307 ± 0.464 (1.00) C:71% T:78%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	0.721 ± 0.710 (1.34)	pCi/L	04/16/18 15:54	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-24S **Lab ID: 263448030** Collected: 03/30/18 12:00 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.333 ± 0.253 (0.414) C:78% T:NA	pCi/L	04/12/18 09:11	13982-63-3	
Radium-228	EPA 9320	0.0758 ± 0.331 (0.752) C:73% T:88%	pCi/L	04/17/18 13:46	15262-20-1	
Total Radium	Total Radium Calculation	0.409 ± 0.584 (1.17)	pCi/L	04/18/18 14:08	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: EB-3-3-30-18 **Lab ID: 263448032** Collected: 03/30/18 11:40 Received: 03/31/18 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.212 ± 0.201 (0.363) C:85% T:NA	pCi/L	04/12/18 09:11	13982-63-3	
Radium-228	EPA 9320	0.504 ± 0.333 (0.632) C:77% T:96%	pCi/L	04/17/18 13:46	15262-20-1	
Total Radium	Total Radium Calculation	0.716 ± 0.534 (0.995)	pCi/L	04/18/18 14:08	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

QC Batch:	293659	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

METHOD BLANK:	1437645	Matrix:	Water
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.474 ± 0.343 (0.651) C:76% T:78%	pCi/L	04/10/18 12:56	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

QC Batch:	293681	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

METHOD BLANK:	1437735	Matrix:	Water
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.281 ± 0.226 (0.405) C:96% T:NA	pCi/L	04/11/18 09:10	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

QC Batch: 293707

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 263448030, 263448032

METHOD BLANK: 1437861

Matrix: Water

Associated Lab Samples: 263448030, 263448032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.115 ± 0.285 (0.637) C:79% T:87%	pCi/L	04/17/18 13:46	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

QC Batch: 293706

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 263448030, 263448032

METHOD BLANK: 1437860

Matrix: Water

Associated Lab Samples: 263448030, 263448032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0134 ± 0.160 (0.434) C:81% T:NA	pCi/L	04/12/18 09:11	

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

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-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263448001	YGWA-5D	EPA 3005A	3707	EPA 6020B	3818
263448003	YGWA-5I	EPA 3005A	3707	EPA 6020B	3818
263448005	YGWA-4I	EPA 3005A	3707	EPA 6020B	3818
263448007	EB-2-3-29-18	EPA 3005A	3707	EPA 6020B	3818
263448009	FB-3-3-29-18	EPA 3005A	3707	EPA 6020B	3818
263448011	YGWC-29I	EPA 3005A	3707	EPA 6020B	3818
263448013	Dup-2	EPA 3005A	3707	EPA 6020B	3818
263448015	Dup-3	EPA 3005A	3707	EPA 6020B	3818
263448017	YGWA-20S	EPA 3005A	3707	EPA 6020B	3818
263448019	YGWA-21I	EPA 3005A	3707	EPA 6020B	3818
263448021	YGWC-23S	EPA 3005A	3707	EPA 6020B	3818
263448023	YGWC-33S	EPA 3005A	3707	EPA 6020B	3818
263448025	FB-4-3-30-18	EPA 3005A	3707	EPA 6020B	3818
263448027	YGWC-36	EPA 3005A	3707	EPA 6020B	3818
263448029	YGWC-24S	EPA 3005A	3707	EPA 6020B	3818
263448031	EB-3-3-30-18	EPA 3005A	3707	EPA 6020B	3818
263448001	YGWA-5D	EPA 7470A	3616	EPA 7470A	3888
263448003	YGWA-5I	EPA 7470A	3616	EPA 7470A	3888
263448005	YGWA-4I	EPA 7470A	3616	EPA 7470A	3888
263448007	EB-2-3-29-18	EPA 7470A	3616	EPA 7470A	3888
263448009	FB-3-3-29-18	EPA 7470A	3616	EPA 7470A	3888
263448011	YGWC-29I	EPA 7470A	3616	EPA 7470A	3888
263448013	Dup-2	EPA 7470A	3616	EPA 7470A	3888
263448015	Dup-3	EPA 7470A	3616	EPA 7470A	3888
263448017	YGWA-20S	EPA 7470A	3616	EPA 7470A	3888
263448019	YGWA-21I	EPA 7470A	3616	EPA 7470A	3888
263448021	YGWC-23S	EPA 7470A	3616	EPA 7470A	3888
263448023	YGWC-33S	EPA 7470A	3616	EPA 7470A	3888
263448025	FB-4-3-30-18	EPA 7470A	3616	EPA 7470A	3888
263448027	YGWC-36	EPA 7470A	3616	EPA 7470A	3888
263448029	YGWC-24S	EPA 7470A	3616	EPA 7470A	3888
263448031	EB-3-3-30-18	EPA 7470A	3616	EPA 7470A	3888
263448002	YGWA-5D	EPA 9315	293681		
263448004	YGWA-5I	EPA 9315	293681		
263448006	YGWA-4I	EPA 9315	293681		
263448008	EB-2-3-29-18	EPA 9315	293681		
263448010	FB-3-3-29-18	EPA 9315	293681		
263448012	YGWC-29I	EPA 9315	293681		
263448014	Dup-2	EPA 9315	293681		
263448016	Dup-3	EPA 9315	293681		
263448018	YGWA-20S	EPA 9315	293681		
263448020	YGWA-21I	EPA 9315	293681		
263448022	YGWC-23S	EPA 9315	293681		
263448024	YGWC-33S	EPA 9315	293681		
263448026	FB-4-3-30-18	EPA 9315	293681		
263448028	YGWC-36	EPA 9315	293681		
263448030	YGWC-24S	EPA 9315	293706		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 263448

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263448032	EB-3-3-30-18	EPA 9315	293706		
263448002	YGWA-5D	EPA 9320	293659		
263448004	YGWA-5I	EPA 9320	293659		
263448006	YGWA-4I	EPA 9320	293659		
263448008	EB-2-3-29-18	EPA 9320	293659		
263448010	FB-3-3-29-18	EPA 9320	293659		
263448012	YGWC-29I	EPA 9320	293659		
263448014	Dup-2	EPA 9320	293659		
263448016	Dup-3	EPA 9320	293659		
263448018	YGWA-20S	EPA 9320	293659		
263448020	YGWA-21I	EPA 9320	293659		
263448022	YGWC-23S	EPA 9320	293659		
263448024	YGWC-33S	EPA 9320	293659		
263448026	FB-4-3-30-18	EPA 9320	293659		
263448028	YGWC-36	EPA 9320	293659		
263448030	YGWC-24S	EPA 9320	293707		
263448032	EB-3-3-30-18	EPA 9320	293707		
263448002	YGWA-5D	Total Radium Calculation	294835		
263448004	YGWA-5I	Total Radium Calculation	294835		
263448006	YGWA-4I	Total Radium Calculation	294835		
263448008	EB-2-3-29-18	Total Radium Calculation	294835		
263448010	FB-3-3-29-18	Total Radium Calculation	294835		
263448012	YGWC-29I	Total Radium Calculation	294835		
263448014	Dup-2	Total Radium Calculation	294835		
263448016	Dup-3	Total Radium Calculation	294835		
263448018	YGWA-20S	Total Radium Calculation	294835		
263448020	YGWA-21I	Total Radium Calculation	294835		
263448022	YGWC-23S	Total Radium Calculation	294835		
263448024	YGWC-33S	Total Radium Calculation	294835		
263448026	FB-4-3-30-18	Total Radium Calculation	294835		
263448028	YGWC-36	Total Radium Calculation	294835		
263448030	YGWC-24S	Total Radium Calculation	295143		
263448032	EB-3-3-30-18	Total Radium Calculation	295143		
263448001	YGWA-5D	EPA 300.0	3754		
263448003	YGWA-5I	EPA 300.0	3754		
263448005	YGWA-4I	EPA 300.0	3754		
263448007	EB-2-3-29-18	EPA 300.0	3754		
263448009	FB-3-3-29-18	EPA 300.0	3754		
263448011	YGWC-29I	EPA 300.0	3754		
263448013	Dup-2	EPA 300.0	3754		
263448015	Dup-3	EPA 300.0	3754		
263448017	YGWA-20S	EPA 300.0	3754		
263448019	YGWA-21I	EPA 300.0	3754		
263448021	YGWC-23S	EPA 300.0	3754		
263448023	YGWC-33S	EPA 300.0	3754		
263448025	FB-4-3-30-18	EPA 300.0	3754		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263448027	YGWC-36	EPA 300.0	3754		
263448029	YGWC-24S	EPA 300.0	3754		
263448031	EB-3-3-30-18	EPA 300.0	3754		

REPORT OF LABORATORY ANALYSIS

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

WO#: 263448

Due Date: 04/09/18

PM: BM

CLIENT: GAPower-CCR



Client Name: Georgia Power

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Proj. Due Date: _____
Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: THROB2
Cooler Temperature: 0.4°C

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Date and Initials of person examining contents: 3/31/18/JS

Temp should be above freezing to 6°C

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace 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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2018-03-29 13:42:12

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Ponds
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 49 ft

Pump placement from TOC 44 ft

Well Information:

Well ID YGWA-4I
Well diameter 2 in
Well Total Depth 49.70 ft
Screen Length 10 ft
Depth to Water 22.85 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.549214 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.6 in
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	13:20:13	1500.02	17.99	6.14	156.70	2.42	23.90	1.45	72.38
Last 5	13:25:14	1800.89	17.82	6.13	157.18	2.09	23.90	1.15	72.94
Last 5	13:30:14	2100.89	17.81	6.11	156.81	1.79	23.90	1.09	73.29
Last 5	13:35:15	2401.89	18.04	6.10	155.12	2.07	23.90	1.02	73.61
Last 5	13:40:15	2701.89	18.17	6.09	153.97	1.59	23.90	0.94	73.61
Variance 0			-0.01	-0.01	-0.37			-0.06	0.35
Variance 1			0.23	-0.01	-1.69			-0.07	0.32
Variance 2			0.13	-0.01	-1.15			-0.08	0.00

Notes

Sunny, sample time: 1340

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 11:46:44

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Ponds
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID YGWA-5I
Well diameter 2 in
Well Total Depth 58.50 ft
Screen Length 10 ft
Depth to Water 19.10 ft

Pumping Information:

Final Pumping Rate 159 mL/min
Total System Volume 1.744681 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.2 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	11:25:30	2399.94	16.75	5.67	92.14	8.35	19.70	6.28	42.39
Last 5	11:30:30	2699.95	16.79	5.66	92.17	8.46	19.70	6.28	42.55
Last 5	11:35:30	2999.95	16.83	5.65	92.01	6.93	19.70	6.26	43.60
Last 5	11:40:30	3299.94	16.81	5.64	92.01	5.47	19.70	6.28	45.49
Last 5	11:45:30	3599.95	16.83	5.63	92.02	4.21	19.70	6.28	46.29
Variance 0			0.03	-0.01	-0.16			-0.01	1.05
Variance 1			-0.02	-0.02	0.01			0.02	1.90
Variance 2			0.02	-0.01	0.00			-0.00	0.80

Notes

Cloudy, sample time -1145, Dup-2-3-29-18 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 09:54:39

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Ponds
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 86 ft

Pump placement from TOC 80 ft

Well Information:

Well ID YGWA-5D
Well diameter 2 in
Well Total Depth 131.60 ft
Screen Length 50 ft
Depth to Water 27.15 ft

Pumping Information:

Final Pumping Rate 90 mL/min
Total System Volume 2.352803 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	09:30:27	1800.50	16.29	6.87	268.82	1.75	27.40	0.70	58.22
Last 5	09:35:27	2100.50	16.40	6.92	261.01	0.34	27.40	0.91	53.28
Last 5	09:40:27	2400.50	16.56	6.97	251.61	0.59	27.40	0.68	47.87
Last 5	09:45:27	2700.50	16.70	7.00	245.18	0.99	27.40	0.30	42.23
Last 5	09:50:27	3000.50	16.82	7.02	241.43	1.22	27.40	0.15	37.17
Variance 0			0.16	0.05	-9.40			-0.23	-5.41
Variance 1			0.13	0.03	-6.43			-0.38	-5.64
Variance 2			0.12	0.02	-3.75			-0.15	-5.06

Notes

Sunny, sample time-0950. 2nd rad here

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-28 14:38:04

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Ponds
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWA-17S
Well diameter 2 in
Well Total Depth 39.91 ft
Screen Length 10 ft
Depth to Water 11.95 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 1.332027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.4 in
Total Volume Pumped 14.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	14:15:04	2700.78	18.70	5.61	77.10	9.52	12.40	1.67	103.15
Last 5	14:20:04	3000.78	18.70	5.55	77.61	7.77	12.40	1.68	103.24
Last 5	14:25:04	3300.78	18.66	5.59	77.70	7.37	12.40	1.87	102.76
Last 5	14:30:04	3600.78	19.01	5.60	77.66	5.69	12.40	1.86	104.50
Last 5	14:35:04	3900.78	18.94	5.59	77.82	4.78	12.40	1.71	104.96
Variance 0			-0.04	0.05	0.09			0.19	-0.48
Variance 1			0.35	0.01	-0.04			-0.01	1.73
Variance 2			-0.07	-0.01	0.16			-0.15	0.46

Notes

Sunny, sample time:1435

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-28 12:21:13

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Ponds
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWA-18S
Well diameter 2 in
Well Total Depth 39.86 ft
Screen Length 10 ft
Depth to Water 20.18 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.332027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.4 in
Total Volume Pumped 27 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	12:00:15	9602.79	17.99	5.34	62.69	9.12	21.30	2.35	107.80
Last 5	12:05:15	9902.79	17.83	5.33	62.69	8.45	21.30	2.35	108.27
Last 5	12:10:15	10202.79	17.69	5.34	62.56	8.33	21.30	2.36	107.90
Last 5	12:15:15	10502.79	17.82	5.34	62.81	8.95	21.30	2.36	107.67
Last 5	12:20:15	10802.80	17.90	5.34	62.67	8.45	21.30	2.35	107.53
Variance 0			-0.14	0.01	-0.13			0.01	-0.37
Variance 1			0.12	-0.00	0.25			0.01	-0.23
Variance 2			0.08	-0.00	-0.14			-0.01	-0.13

Notes

Sunny, sample time :1220, FB-1 poured here at 1200

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-28 13:11:23

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Ponds
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 79 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWA-18I
Well diameter 2 in
Well Total Depth 79.63 ft
Screen Length 10 ft
Depth to Water 23.53 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 2.200773 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	12:50:41	600.02	17.38	6.06	122.92	5.66	23.80	3.11	116.76
Last 5	12:55:41	900.02	17.34	6.07	124.64	4.59	23.80	3.10	116.35
Last 5	13:00:41	1200.46	17.28	6.08	124.81	3.14	23.80	3.15	116.06
Last 5	13:05:41	1500.46	17.31	6.09	126.91	4.02	23.80	3.11	116.46
Last 5	13:10:41	1800.46	17.28	6.10	129.77	4.51	23.80	3.07	116.67
Variance 0			-0.06	0.01	0.17			0.05	-0.29
Variance 1			0.03	0.01	2.10			-0.04	0.41
Variance 2			-0.03	0.01	2.86			-0.04	0.21

Notes

Sunny, sample time : 1310

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 13:58:41

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type Teflon
Tubing Diameter .17 in
Tubing Length 34 ft

Pump placement from TOC 24 ft

Well Information:

Well ID YGWA-20S
Well diameter 2 in
Well Total Depth 29.71 ft
Screen Length 10 ft
Depth to Water 11.60 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5417564 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.2 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:36:51	3600.00	17.48	5.94	55.27	6.96	12.70	5.61	81.68
Last 5	13:41:51	3899.99	17.48	5.93	55.23	6.38	12.70	5.61	81.95
Last 5	13:46:51	4199.99	17.43	5.93	55.27	5.54	12.70	5.64	82.05
Last 5	13:51:51	4499.98	17.66	5.93	55.37	5.64	12.70	5.60	82.46
Last 5	13:56:51	4799.98	17.58	5.93	55.15	4.86	12.70	5.63	82.40
Variance 0			-0.06	0.00	0.04			0.02	0.11
Variance 1			0.24	0.00	0.11			-0.03	0.40
Variance 2			-0.09	-0.00	-0.22			0.03	-0.05

Notes

Sampled at 13:56. Cloudy, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 11:51:10

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type Teflon
Tubing Diameter .375 in
Tubing Length 85 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWA-21 I
Well diameter 2 in
Well Total Depth 80.07 ft
Screen Length 10 ft
Depth to Water 32.25 ft

Pumping Information:

Final Pumping Rate 85 mL/min
Total System Volume 2.236085 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 34.2 in
Total Volume Pumped 4.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:30:03	1800.01	17.25	6.78	152.78	1.17	34.60	0.31	-6.39
Last 5	11:35:03	2100.01	17.40	6.77	151.99	0.97	34.80	0.31	-4.93
Last 5	11:40:06	2403.01	17.43	6.75	151.08	0.99	34.90	0.30	-3.98
Last 5	11:45:07	2704.00	17.52	6.75	150.41	1.05	35.00	0.28	-4.56
Last 5	11:50:07	3004.00	17.52	6.75	150.29	0.94	35.10	0.26	-5.71
Variance 0			0.03	-0.02	-0.91			-0.01	0.95
Variance 1			0.08	-0.01	-0.67			-0.02	-0.58
Variance 2			-0.00	0.00	-0.12			-0.02	-1.15

Notes

Sampled at 11:50. Cloudy, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 09:02:38

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type Teflon
Tubing Diameter .375 in
Tubing Length 44 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWC-23S
Well diameter 2 in
Well Total Depth 39.18 ft
Screen Length 10 ft
Depth to Water 14.05 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 1.34562 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11.4 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	08:41:49	900.03	16.40	5.73	146.17	14.70	15.00	8.44	96.88
Last 5	08:46:49	1200.02	16.45	5.73	144.23	5.83	15.00	8.37	95.60
Last 5	08:51:49	1500.02	16.45	5.72	143.34	4.04	15.00	8.44	94.70
Last 5	08:56:49	1800.01	16.49	5.73	142.56	2.43	15.00	8.42	93.35
Last 5	09:01:50	2101.02	16.53	5.73	142.06	2.12	15.00	8.43	91.81
Variance 0			-0.01	-0.00	-0.89			0.07	-0.90
Variance 1			0.04	0.01	-0.78			-0.01	-1.35
Variance 2			0.04	-0.00	-0.49			0.01	-1.55

Notes

Sampled at 09:01. Cloudy, 50's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 11:56:54

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 56 ft

Pump placement from TOC 52 ft

Well Information:

Well ID YGWC-24S
Well diameter 2 in
Well Total Depth 57.01 ft
Screen Length 10 ft
Depth to Water 27.8 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 1.025553 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 6.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:34:09	600.01	16.92	5.55	67.71	1.22	28.20	6.30	125.95
Last 5	11:39:09	900.01	17.18	5.62	67.40	1.55	28.20	6.30	121.85
Last 5	11:44:09	1200.01	17.16	5.62	67.46	1.70	28.30	6.31	123.69
Last 5	11:49:09	1499.99	17.14	5.60	67.82	1.54	28.30	6.37	127.42
Last 5	11:54:09	1799.99	17.23	5.64	67.73	1.05	28.30	6.39	127.51
Variance 0			-0.02	0.01	0.06			0.02	1.84
Variance 1			-0.02	-0.02	0.36			0.05	3.73
Variance 2			0.09	0.03	-0.09			0.03	0.09

Notes

Collected at 12:00. Cloudy 50s. EB 3 here at 11:40

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 11:24:08

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Ash Pond 2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type Teflon
Tubing Diameter .375 in
Tubing Length 43 ft

Pump placement from TOC 33 ft

Well Information:

Well ID YGWC-33S
Well diameter 2 in
Well Total Depth 38.73 ft
Screen Length 10 ft
Depth to Water 9.64 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 1.323902 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.72 in
Total Volume Pumped 36 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:02:48	4204.98	18.28	4.05	1326.27	8.38	10.20	0.16	211.12
Last 5	11:07:48	4504.98	18.30	4.05	1327.22	7.72	10.20	0.15	210.27
Last 5	11:12:48	4804.98	18.34	4.05	1327.08	6.69	10.20	0.15	209.49
Last 5	11:17:48	5104.97	18.27	4.05	1326.23	6.46	10.20	0.15	209.03
Last 5	11:22:48	5404.97	18.23	4.05	1326.25	4.85	10.20	0.15	210.34
Variance 0			0.05	-0.00	-0.14			0.00	-0.78
Variance 1			-0.07	0.00	-0.85			-0.00	-0.47
Variance 2			-0.05	-0.00	0.02			0.00	1.31

Notes

Sampled at 11:22. Cloudy, 60's. FB-4 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 10:55:22

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-36
Well diameter 2 in
Well Total Depth 60.0 ft
Screen Length 10 ft
Depth to Water 10.12 ft

Pumping Information:

Final Pumping Rate 190 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 18 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:32:37	5099.93	17.25	5.48	414.96	5.93	11.60	0.95	139.90
Last 5	10:37:37	5399.93	17.56	5.49	414.58	5.47	11.60	0.94	139.20
Last 5	10:42:37	5699.93	17.37	5.50	413.69	5.20	11.60	0.90	140.01
Last 5	10:47:37	5999.92	17.40	5.49	413.33	5.01	11.60	0.87	140.08
Last 5	10:52:37	6299.92	17.72	5.51	412.34	4.73	11.60	0.87	139.46
Variance 0			-0.19	0.00	-0.89			-0.03	0.81
Variance 1			0.03	-0.00	-0.37			-0.03	0.07
Variance 2			0.32	0.02	-0.99			-0.01	-0.62

Notes

Collected at 10:55. Cloudy 50s.

Grab Samples

July 17, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 265917

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 08, 2018. 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.

REV07172018_report revised to remove mercury data per consultant request.

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

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds
Pace Project No.: 265917

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
Texas Certification #: T104704397-08-TX
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
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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Lab ID	Sample ID	Matrix	Date Collected	Date Received
265917001	YGWA-21I	Water	06/05/18 16:16	06/08/18 15:55
265917002	YGWA-20S	Water	06/06/18 13:46	06/08/18 15:55
265917003	YGWA-5D	Water	06/06/18 15:22	06/08/18 15:55
265917004	YGWA-5I	Water	06/07/18 10:22	06/08/18 15:55
265917005	YGWA-4I	Water	06/07/18 12:04	06/08/18 15:55
265917006	YGWA-18I	Water	06/07/18 14:42	06/08/18 15:55
265917007	Dup-1	Water	06/07/18 00:00	06/08/18 15:55

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
265917001	YGWA-21I	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265917002	YGWA-20S	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265917003	YGWA-5D	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265917004	YGWA-5I	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265917005	YGWA-4I	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265917006	YGWA-18I	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265917007	Dup-1	EPA 6020B	CSW	9	PASI-GA

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-211		Lab ID: 265917001		Collected: 06/05/18 16:16		Received: 06/08/18 15:55		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	0.0013J	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 13:51	7440-38-2		
Barium	0.011	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 13:51	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 13:51	7440-41-7		
Boron	0.0092J	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 13:51	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 13:51	7440-43-9		
Calcium	9.1	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 13:51	7440-70-2		
Cobalt	0.0041J	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 13:51	7440-48-4		
Lithium	0.0061J	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 13:51	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 13:51	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	109	mg/L	25.0	10.0	1		06/11/18 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.7	mg/L	0.25	0.024	1		06/22/18 16:27	16887-00-6	B	
Fluoride	0.13J	mg/L	0.30	0.029	1		06/22/18 16:27	16984-48-8		
Sulfate	6.1	mg/L	1.0	0.017	1		06/22/18 16:27	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-20S		Lab ID: 265917002		Collected: 06/06/18 13:46		Received: 06/08/18 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 14:03	7440-38-2	
Barium	0.015	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 14:03	7440-39-3	
Beryllium	0.000080J	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 14:03	7440-41-7	
Boron	0.0049J	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 14:03	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 14:03	7440-43-9	
Calcium	2.3	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 14:03	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 14:03	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 14:03	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 14:03	7782-49-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	79.0	mg/L	25.0	10.0	1		06/11/18 18:51		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	2.7	mg/L	0.25	0.024	1		06/22/18 17:29	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		06/22/18 17:29	16984-48-8	
Sulfate	0.049J	mg/L	1.0	0.017	1		06/22/18 17:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-5D		Lab ID: 265917003		Collected: 06/06/18 15:22		Received: 06/08/18 15:55		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	0.0013J	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 14:14	7440-38-2		
Barium	0.0080J	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 14:14	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 14:14	7440-41-7		
Boron	0.0098J	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 14:14	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 14:14	7440-43-9		
Calcium	26.2	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 14:20	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 14:14	7440-48-4		
Lithium	0.0068J	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 14:14	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 14:14	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	151	mg/L	25.0	10.0	1		06/11/18 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.7	mg/L	0.25	0.024	1		06/22/18 17:49	16887-00-6		
Fluoride	0.15J	mg/L	0.30	0.029	1		06/22/18 17:49	16984-48-8		
Sulfate	8.3	mg/L	1.0	0.017	1		06/22/18 17:49	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-5I		Lab ID: 265917004		Collected: 06/07/18 10:22		Received: 06/08/18 15:55		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 14:26	7440-38-2		
Barium	0.019	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 14:26	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 14:26	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 14:26	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 14:26	7440-43-9		
Calcium	2.3	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 14:26	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 14:26	7440-48-4		
Lithium	0.0032J	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 14:26	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 14:26	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	142	mg/L	25.0	10.0	1		06/12/18 10:18			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.5	mg/L	0.25	0.024	1		06/22/18 23:40	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/22/18 23:40	16984-48-8		
Sulfate	2.0	mg/L	1.0	0.017	1		06/22/18 23:40	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 265917

Sample: YGWA-4I		Lab ID: 265917005		Collected: 06/07/18 12:04		Received: 06/08/18 15:55		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	0.00059J	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 14:50	7440-38-2		
Barium	0.014	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 14:50	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 14:50	7440-41-7		
Boron	0.0045J	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 14:50	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 14:50	7440-43-9		
Calcium	8.2	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 14:50	7440-70-2		
Cobalt	0.00058J	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 14:50	7440-48-4		
Lithium	0.013J	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 14:50	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 14:50	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	90.0	mg/L	25.0	10.0	1		06/12/18 10:18			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.4	mg/L	0.25	0.024	1		06/23/18 00:01	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/23/18 00:01	16984-48-8		
Sulfate	8.5	mg/L	1.0	0.017	1		06/23/18 00:01	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-181		Lab ID: 265917006		Collected: 06/07/18 14:42		Received: 06/08/18 15:55		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	0.00066J	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 15:02	7440-38-2		
Barium	0.023	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 15:02	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 15:02	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 15:02	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 15:02	7440-43-9		
Calcium	4.8	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 15:02	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 15:02	7440-48-4		
Lithium	0.0032J	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 15:02	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 15:02	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	68.0	mg/L	25.0	10.0	1		06/12/18 10:18			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	6.8	mg/L	0.25	0.024	1		06/23/18 00:22	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/23/18 00:22	16984-48-8		
Sulfate	0.68J	mg/L	1.0	0.017	1		06/23/18 00:22	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: Dup-1		Lab ID: 265917007		Collected: 06/07/18 00:00	Received: 06/08/18 15:55	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 15:13	7440-38-2		
Barium	0.019	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 15:13	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 15:13	7440-41-7		
Boron	0.0043J	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 15:13	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 15:13	7440-43-9		
Calcium	2.4	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 15:13	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 15:13	7440-48-4		
Lithium	0.0032J	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 15:13	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 15:13	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	70.0	mg/L	25.0	10.0	1		06/12/18 10:18			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.3	mg/L	0.25	0.024	1		06/25/18 16:54	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/25/18 16:54	16984-48-8		
Sulfate	2.0	mg/L	1.0	0.017	1		06/25/18 16:54	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 265917

QC Batch: 8416 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 265917001, 265917002, 265917003, 265917004, 265917005, 265917006, 265917007

METHOD BLANK: 38827 Matrix: Water
Associated Lab Samples: 265917001, 265917002, 265917003, 265917004, 265917005, 265917006, 265917007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	06/26/18 13:40	
Barium	mg/L	ND	0.010	0.00078	06/26/18 13:40	
Beryllium	mg/L	ND	0.0030	0.000050	06/26/18 13:40	
Boron	mg/L	ND	0.040	0.0039	06/26/18 13:40	
Cadmium	mg/L	ND	0.0010	0.000093	06/26/18 13:40	
Calcium	mg/L	ND	0.50	0.014	06/26/18 13:40	
Cobalt	mg/L	ND	0.010	0.00052	06/26/18 13:40	
Lithium	mg/L	ND	0.050	0.00097	06/26/18 13:40	
Selenium	mg/L	ND	0.010	0.0014	06/26/18 13:40	

LABORATORY CONTROL SAMPLE: 38828

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	101	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.10	103	80-120	
Boron	mg/L	1	1.1	110	80-120	
Cadmium	mg/L	.1	0.10	103	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Cobalt	mg/L	.1	0.10	105	80-120	
Lithium	mg/L	.1	0.11	106	80-120	
Selenium	mg/L	.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 38879 38880

Parameter	Units	266085001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0013J	.1	.1	0.10	0.11	103	104	75-125	1	20	
Barium	mg/L	0.21	.1	.1	0.31	0.33	103	117	75-125	4	20	
Beryllium	mg/L	ND	.1	.1	0.10	0.11	102	105	75-125	3	20	
Boron	mg/L	2.8	1	1	3.7	3.9	97	117	75-125	5	20	
Cadmium	mg/L	ND	.1	.1	0.11	0.11	105	109	75-125	4	20	
Calcium	mg/L	27.1	1	1	28.2	29.4	108	227	75-125	4	20	M6
Cobalt	mg/L	0.0011J	.1	.1	0.11	0.11	106	111	75-125	4	20	
Lithium	mg/L	ND	.1	.1	0.10	0.10	101	104	75-125	3	20	
Selenium	mg/L	ND	.1	.1	0.11	0.11	108	110	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 265917

QC Batch: 8546 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 265917001, 265917002, 265917003, 265917004, 265917005, 265917006, 265917007

METHOD BLANK: 39316 Matrix: Water
Associated Lab Samples: 265917001, 265917002, 265917003, 265917004, 265917005, 265917006, 265917007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.27	0.25	0.024	06/22/18 15:46	
Fluoride	mg/L	ND	0.30	0.029	06/22/18 15:46	
Sulfate	mg/L	ND	1.0	0.017	06/22/18 15:46	

LABORATORY CONTROL SAMPLE: 39317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.5	95	90-110	
Fluoride	mg/L	10	10	100	90-110	
Sulfate	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 39318 39319

Parameter	Units	265917001 Result	MS Spike Conc.	MSD Spike Conc.	39318		39319		% Rec Limits	RPD	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec				
Chloride	mg/L	1.7	10	10	11.2	11.2	95	95	90-110	0	15	
Fluoride	mg/L	0.13J	10	10	9.9	9.9	98	98	90-110	0	15	
Sulfate	mg/L	6.1	10	10	15.4	15.5	94	94	90-110	0	15	

MATRIX SPIKE SAMPLE: 39320

Parameter	Units	265917002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.7	10	12.3	97	90-110	
Fluoride	mg/L	ND	10	9.9	99	90-110	
Sulfate	mg/L	0.049J	10	9.8	98	90-110	

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

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-211 **Lab ID: 265917001** Collected: 06/05/18 16:16 Received: 06/08/18 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.570 ± 0.291 (0.339) C:89% T:NA	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	0.823 ± 0.510 (0.948) C:66% T:75%	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	1.39 ± 0.801 (1.29)	pCi/L	07/02/18 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-20S **Lab ID: 265917002** Collected: 06/06/18 13:46 Received: 06/08/18 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.568 ± 0.314 (0.442) C:88% T:NA	pCi/L	06/28/18 08:13	13982-63-3	
Radium-228	EPA 9320	0.126 ± 0.453 (1.03) C:71% T:68%	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	0.694 ± 0.767 (1.47)	pCi/L	07/02/18 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-5D **Lab ID: 265917003** Collected: 06/06/18 15:22 Received: 06/08/18 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	3.00 ± 0.752 (0.389) C:90% T:NA	pCi/L	06/28/18 08:13	13982-63-3	
Radium-228	EPA 9320	0.994 ± 0.468 (0.771) C:72% T:77%	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	3.99 ± 1.22 (1.16)	pCi/L	07/02/18 16:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-5I **Lab ID: 265917004** Collected: 06/07/18 10:22 Received: 06/08/18 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.372 ± 0.262 (0.422) C:78% T:NA	pCi/L	06/28/18 08:13	13982-63-3	
Radium-228	EPA 9320	0.373 ± 0.459 (0.973) C:74% T:76%	pCi/L	07/02/18 17:21	15262-20-1	
Total Radium	Total Radium Calculation	0.745 ± 0.721 (1.40)	pCi/L	07/03/18 15:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-4I **Lab ID: 265917005** Collected: 06/07/18 12:04 Received: 06/08/18 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.484 ± 0.271 (0.388) C:91% T:NA	pCi/L	06/28/18 08:13	13982-63-3	
Radium-228	EPA 9320	0.144 ± 0.497 (1.12) C:70% T:80%	pCi/L	07/02/18 17:21	15262-20-1	
Total Radium	Total Radium Calculation	0.628 ± 0.768 (1.51)	pCi/L	07/03/18 15:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Sample: YGWA-181 **Lab ID: 265917006** Collected: 06/07/18 14:42 Received: 06/08/18 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.202 ± 0.261 (0.555) C:82% T:NA	pCi/L	06/28/18 08:13	13982-63-3	
Radium-228	EPA 9320	0.466 ± 0.492 (1.02) C:70% T:64%	pCi/L	07/02/18 17:20	15262-20-1	
Total Radium	Total Radium Calculation	0.668 ± 0.753 (1.58)	pCi/L	07/03/18 15:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.491 ± 0.289 (0.404) C:82% T:NA	pCi/L	06/28/18 08:13	13982-63-3	
Radium-228	EPA 9320	0.653 ± 0.508 (1.00) C:64% T:74%	pCi/L	07/02/18 17:21	15262-20-1	
Total Radium	Total Radium Calculation	1.14 ± 0.797 (1.40)	pCi/L	07/03/18 15:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

QC Batch: 302388

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 265917004, 265917005, 265917006, 265917007

METHOD BLANK: 1479692

Matrix: Water

Associated Lab Samples: 265917004, 265917005, 265917006, 265917007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	1.11 ± 0.508 (0.850) C:78% T:75%	pCi/L	07/02/18 17:21	1A

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

QC Batch:	302387	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	265917001, 265917002, 265917003		

METHOD BLANK:	1479691	Matrix:	Water
Associated Lab Samples:	265917001, 265917002, 265917003		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0160 ± 0.341 (0.788) C:81% T:80%	pCi/L	06/29/18 11:54	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265917

QC Batch: 302779

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 265917001, 265917002, 265917003, 265917004, 265917005, 265917006, 265917007

METHOD BLANK: 1481497

Matrix: Water

Associated Lab Samples: 265917001, 265917002, 265917003, 265917004, 265917005, 265917006, 265917007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.234 ± 0.205 (0.355) C:82% T:NA	pCi/L	06/28/18 08:12	

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds
Pace Project No.: 265917

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.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
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-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1A Ra-228 detected in Method Blank above the associated MDC. Sample results are reportable without qualification if their activity is below the RL of 1.0 pCi/L.
B Analyte was detected in the associated method blank.
D6 The precision between the sample and sample duplicate exceeded laboratory control limits.
M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 265917

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
265917001	YGWA-21I	EPA 3005A	8416	EPA 6020B	8751
265917002	YGWA-20S	EPA 3005A	8416	EPA 6020B	8751
265917003	YGWA-5D	EPA 3005A	8416	EPA 6020B	8751
265917004	YGWA-5I	EPA 3005A	8416	EPA 6020B	8751
265917005	YGWA-4I	EPA 3005A	8416	EPA 6020B	8751
265917006	YGWA-18I	EPA 3005A	8416	EPA 6020B	8751
265917007	Dup-1	EPA 3005A	8416	EPA 6020B	8751
265917001	YGWA-21I	EPA 9315	302779		
265917002	YGWA-20S	EPA 9315	302779		
265917003	YGWA-5D	EPA 9315	302779		
265917004	YGWA-5I	EPA 9315	302779		
265917005	YGWA-4I	EPA 9315	302779		
265917006	YGWA-18I	EPA 9315	302779		
265917007	Dup-1	EPA 9315	302779		
265917001	YGWA-21I	EPA 9320	302387		
265917002	YGWA-20S	EPA 9320	302387		
265917003	YGWA-5D	EPA 9320	302387		
265917004	YGWA-5I	EPA 9320	302388		
265917005	YGWA-4I	EPA 9320	302388		
265917006	YGWA-18I	EPA 9320	302388		
265917007	Dup-1	EPA 9320	302388		
265917001	YGWA-21I	Total Radium Calculation	304450		
265917002	YGWA-20S	Total Radium Calculation	304450		
265917003	YGWA-5D	Total Radium Calculation	304450		
265917004	YGWA-5I	Total Radium Calculation	304590		
265917005	YGWA-4I	Total Radium Calculation	304590		
265917006	YGWA-18I	Total Radium Calculation	304590		
265917007	Dup-1	Total Radium Calculation	304590		
265917001	YGWA-21I	SM 2540C	7739		
265917002	YGWA-20S	SM 2540C	7739		
265917003	YGWA-5D	SM 2540C	7739		
265917004	YGWA-5I	SM 2540C	7764		
265917005	YGWA-4I	SM 2540C	7764		
265917006	YGWA-18I	SM 2540C	7764		
265917007	Dup-1	SM 2540C	7764		
265917001	YGWA-21I	EPA 300.0	8546		
265917002	YGWA-20S	EPA 300.0	8546		
265917003	YGWA-5D	EPA 300.0	8546		
265917004	YGWA-5I	EPA 300.0	8546		
265917005	YGWA-4I	EPA 300.0	8546		
265917006	YGWA-18I	EPA 300.0	8546		
265917007	Dup-1	EPA 300.0	8546		

REPORT OF LABORATORY ANALYSIS

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

Sample Condition Upon Receipt



Client Name: GLA Power

Project # _____

WO#: 265917

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

PM: BM Due Date: **07/09/18**

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wal Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.4 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 6/8/18 MK

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace 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	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix: <u>GLW</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased): _____			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office, i.e. out of hold, incorrect preservative, out of temp, incorrect containers.

July 13, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2018. 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,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092	North Carolina Certification #: 381
Florida DOH Certification #: E87315	South Carolina Certification #: 98011001
Georgia DW Inorganics Certification #: 812	Texas Certification #: T104704397-08-TX
Georgia DW Microbiology Certification #: 812	Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601	Missouri Certification #: 235
ANAB DOD-ELAP Rad Accreditation #: L2417	Montana Certification #: Cert0082
Alabama Certification #: 41590	Nebraska Certification #: NE-OS-29-14
Arizona Certification #: AZ0734	Nevada Certification #: PA014572018-1
Arkansas Certification	New Hampshire/TNI Certification #: 297617
California Certification #: 04222CA	New Jersey/TNI Certification #: PA051
Colorado Certification #: PA01547	New Mexico Certification #: PA01457
Connecticut Certification #: PH-0694	New York/TNI Certification #: 10888
Delaware Certification	North Carolina Certification #: 42706
EPA Region 4 DW Rad	North Dakota Certification #: R-190
Florida/TNI Certification #: E87683	Ohio EPA Rad Approval: #41249
Georgia Certification #: C040	Oregon/TNI Certification #: PA200002-010
Guam Certification	Pennsylvania/TNI Certification #: 65-00282
Hawaii Certification	Puerto Rico Certification #: PA01457
Idaho Certification	Rhode Island Certification #: 65-00282
Illinois Certification	South Dakota Certification
Indiana Certification	Tennessee Certification #: 02867
Iowa Certification #: 391	Texas/TNI Certification #: T104704188-17-3
Kansas/TNI Certification #: E-10358	Utah/TNI Certification #: PA014572017-9
Kentucky Certification #: KY90133	USDA Soil Permit #: P330-17-00091
KY WW Permit #: KY0098221	Vermont Dept. of Health: ID# VT-0282
KY WW Permit #: KY0000221	Virgin Island/PADEP Certification
Louisiana DHH/TNI Certification #: LA180012	Virginia/VELAP Certification #: 9526
Louisiana DEQ/TNI Certification #: 4086	Washington Certification #: C868
Maine Certification #: 2017020	West Virginia DEP Certification #: 143
Maryland Certification #: 308	West Virginia DHHR Certification #: 9964C
Massachusetts Certification #: M-PA1457	Wisconsin Approve List for Rad
Michigan/PADEP Certification #: 9991	Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Lab ID	Sample ID	Matrix	Date Collected	Date Received
266089001	YGWA-18S	Water	06/11/18 12:45	06/14/18 09:00
266089002	YGWA-17S	Water	06/11/18 14:55	06/14/18 09:00
266089003	FB-1-6-11-18	Water	06/11/18 13:10	06/14/18 09:00
266089004	EB-1-6-11-18	Water	06/11/18 15:20	06/14/18 09:00
266089005	YGWC-23S	Water	06/12/18 10:00	06/14/18 09:00
266089006	FB-2-6-12-18	Water	06/12/18 10:25	06/14/18 09:00
266089007	YGWC-33S	Water	06/12/18 12:46	06/14/18 09:00
266089008	YGWC-24S	Water	06/12/18 14:47	06/14/18 09:00
266089009	Dup-2	Water	06/12/18 00:00	06/14/18 09:00
266089010	YGWC-36	Water	06/13/18 10:52	06/14/18 09:00
266089011	EB-2-6-13-18	Water	06/13/18 11:45	06/14/18 09:00

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
266089001	YGWA-18S	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
266089002	YGWA-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
266089003	FB-1-6-11-18	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
266089004	EB-1-6-11-18	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
266089005	YGWC-23S	SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
266089006	FB-2-6-12-18	EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266089007	YGWC-33S	EPA 6020B	CSW	9	PASI-GA

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
266089008	YGWC-24S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
266089009	Dup-2	EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266089010	YGWC-36	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA
266089011	EB-2-6-13-18	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWA-18S		Lab ID: 266089001		Collected: 06/11/18 12:45		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 19:23	7440-38-2		
Barium	0.019	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 19:23	7440-39-3		
Beryllium	0.000057J	mg/L	0.0030	0.000050	1	06/20/18 15:24	06/26/18 19:23	7440-41-7		
Boron	0.0093J	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 19:23	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/20/18 15:24	06/26/18 19:23	7440-43-9		
Calcium	1.4	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 19:23	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 19:23	7440-48-4		
Lithium	0.0014J	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 19:23	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/20/18 15:24	06/26/18 19:23	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	74.0	mg/L	25.0	10.0	1		06/15/18 11:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	6.8	mg/L	0.25	0.024	1		06/27/18 21:47	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/27/18 21:47	16984-48-8		
Sulfate	0.95J	mg/L	1.0	0.017	1		06/27/18 21:47	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Sample: YGWA-17S		Lab ID: 266089002		Collected: 06/11/18 14:55		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 16:08	7440-38-2		
Barium	0.013	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 16:08	7440-39-3		
Beryllium	0.000090J	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 16:08	7440-41-7		
Boron	0.010J	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 16:08	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 16:08	7440-43-9		
Calcium	2.1	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 16:08	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 16:08	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 16:08	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 16:08	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	70.0	mg/L	25.0	10.0	1		06/15/18 11:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.9	mg/L	0.25	0.024	1		06/27/18 22:09	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		06/27/18 22:09	16984-48-8		
Sulfate	5.2	mg/L	1.0	0.017	1		06/27/18 22:09	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: FB-1-6-11-18		Lab ID: 266089003		Collected: 06/11/18 13:10		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 16:19	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 16:19	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 16:19	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 16:19	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 16:19	7440-43-9		
Calcium	0.030J	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 16:19	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 16:19	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 16:19	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 16:19	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		06/15/18 11:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.11J	mg/L	0.25	0.024	1		06/27/18 22:32	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		06/27/18 22:32	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		06/27/18 22:32	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Sample: EB-1-6-11-18		Lab ID: 266089004		Collected: 06/11/18 15:20		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 16:25	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 16:25	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 16:25	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 16:25	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 16:25	7440-43-9		
Calcium	0.030J	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 16:25	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 16:25	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 16:25	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 16:25	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		06/15/18 11:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.071J	mg/L	0.25	0.024	1		06/27/18 22:55	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		06/27/18 22:55	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		06/27/18 22:55	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-23S		Lab ID: 266089005		Collected: 06/12/18 10:00		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 16:31	7440-38-2		
Barium	0.024	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 16:31	7440-39-3		
Beryllium	0.000081J	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 16:31	7440-41-7		
Boron	0.90	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 16:31	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 16:31	7440-43-9		
Calcium	4.7	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 16:31	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 16:31	7440-48-4		
Lithium	0.0017J	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 16:31	7439-93-2		
Selenium	0.026	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 16:31	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	115	mg/L	25.0	10.0	1		06/15/18 11:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.8	mg/L	0.25	0.024	1		06/28/18 02:44	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		06/28/18 02:44	16984-48-8		
Sulfate	41.4	mg/L	1.0	0.017	1		06/28/18 02:44	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: FB-2-6-12-18		Lab ID: 266089006		Collected: 06/12/18 10:25	Received: 06/14/18 09:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 16:42	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 16:42	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 16:42	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 16:42	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 16:42	7440-43-9		
Calcium	0.026J	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 16:42	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 16:42	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 16:42	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 16:42	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	13.0J	mg/L	25.0	10.0	1		06/15/18 11:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.069J	mg/L	0.25	0.024	1		06/28/18 03:07	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		06/28/18 03:07	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		06/28/18 03:07	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-33S		Lab ID: 266089007		Collected: 06/12/18 12:46		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	0.0020J	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 17:03	7440-38-2		
Barium	0.012	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 17:03	7440-39-3		
Beryllium	0.016	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 17:03	7440-41-7		
Boron	9.2	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 17:03	7440-42-8		
Cadmium	0.0029	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 17:03	7440-43-9		
Calcium	129	mg/L	25.0	0.69	50	06/21/18 13:04	07/10/18 17:08	7440-70-2		
Cobalt	0.014	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 17:03	7440-48-4		
Lithium	0.023J	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 17:03	7439-93-2		
Selenium	0.0057J	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 17:03	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1150	mg/L	25.0	10.0	1		06/15/18 11:55			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.9	mg/L	0.25	0.024	1		06/28/18 03:29	16887-00-6		
Fluoride	0.18J	mg/L	0.30	0.029	1		06/28/18 03:29	16984-48-8		
Sulfate	759	mg/L	20.0	0.34	20		07/13/18 10:02	14808-79-8	H5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-24S		Lab ID: 266089008		Collected: 06/12/18 14:47		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 17:14	7440-38-2		
Barium	0.018	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 17:14	7440-39-3		
Beryllium	0.00012J	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 17:14	7440-41-7		
Boron	0.018J	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 17:14	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 17:14	7440-43-9		
Calcium	1.8	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 17:14	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 17:14	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 17:14	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 17:14	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	79.0	mg/L	25.0	10.0	1		06/15/18 11:55			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	6.2	mg/L	0.25	0.024	1		06/28/18 03:51	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		06/28/18 03:51	16984-48-8		
Sulfate	0.35J	mg/L	1.0	0.017	1		06/28/18 03:51	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Sample: Dup-2		Lab ID: 266089009		Collected: 06/12/18 00:00		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 17:25	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 17:25	7440-39-3	
Beryllium	0.00012J	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 17:25	7440-41-7	
Boron	0.0088J	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 17:25	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 17:25	7440-43-9	
Calcium	1.8	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 17:25	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 17:25	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 17:25	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 17:25	7782-49-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	77.0	mg/L	25.0	10.0	1		06/15/18 11:55		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	6.2	mg/L	0.25	0.024	1		06/28/18 04:14	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		06/28/18 04:14	16984-48-8	
Sulfate	0.22J	mg/L	1.0	0.017	1		06/28/18 04:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-36		Lab ID: 266089010		Collected: 06/13/18 10:52		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	0.00066J	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 17:37	7440-38-2	
Barium	0.046	mg/L	0.010	0.00078	1	06/21/18 13:04	07/10/18 17:37	7440-39-3	
Beryllium	0.00035J	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 17:37	7440-41-7	
Boron	0.25	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 17:37	7440-42-8	
Cadmium	0.00019J	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 17:37	7440-43-9	
Calcium	18.7J	mg/L	25.0	0.69	50	06/21/18 13:04	07/10/18 17:42	7440-70-2	D3,M6
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 17:37	7440-48-4	
Lithium	0.0065J	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 17:37	7439-93-2	
Selenium	0.0024J	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 17:37	7782-49-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	292	mg/L	25.0	10.0	1		06/18/18 11:30		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.6	mg/L	0.25	0.024	1		07/07/18 08:20	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		07/07/18 08:20	16984-48-8	
Sulfate	144	mg/L	5.0	0.085	5		07/11/18 16:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: EB-2-6-13-18		Lab ID: 266089011		Collected: 06/13/18 11:45		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/21/18 13:04	07/10/18 18:57	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	06/21/18 13:04	07/11/18 18:50	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	06/21/18 13:04	07/10/18 18:57	7440-41-7		
Boron	0.0040J	mg/L	0.040	0.0039	1	06/21/18 13:04	07/10/18 18:57	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	06/21/18 13:04	07/10/18 18:57	7440-43-9		
Calcium	0.029J	mg/L	0.50	0.014	1	06/21/18 13:04	07/10/18 18:57	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/21/18 13:04	07/10/18 18:57	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/21/18 13:04	07/10/18 18:57	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	06/21/18 13:04	07/10/18 18:57	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	14.0J	mg/L	25.0	10.0	1		06/18/18 11:30			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.27	mg/L	0.25	0.024	1		07/07/18 08:42	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		07/07/18 08:42	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		07/07/18 08:42	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

QC Batch: 8416 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 266089001

METHOD BLANK: 38827 Matrix: Water
Associated Lab Samples: 266089001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	06/26/18 13:40	
Barium	mg/L	ND	0.010	0.00078	06/26/18 13:40	
Beryllium	mg/L	ND	0.0030	0.000050	06/26/18 13:40	
Boron	mg/L	ND	0.040	0.0039	06/26/18 13:40	
Cadmium	mg/L	ND	0.0010	0.000093	06/26/18 13:40	
Calcium	mg/L	ND	0.50	0.014	06/26/18 13:40	
Cobalt	mg/L	ND	0.010	0.00052	06/26/18 13:40	
Lithium	mg/L	ND	0.050	0.00097	06/26/18 13:40	
Selenium	mg/L	ND	0.010	0.0014	06/26/18 13:40	

LABORATORY CONTROL SAMPLE: 38828

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	101	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.10	103	80-120	
Boron	mg/L	1	1.1	110	80-120	
Cadmium	mg/L	.1	0.10	103	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Cobalt	mg/L	.1	0.10	105	80-120	
Lithium	mg/L	.1	0.11	106	80-120	
Selenium	mg/L	.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 38879 38880

Parameter	Units	266085001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Arsenic	mg/L	0.0013J	.1	.1	0.10	0.11	103	104	75-125	1	20	
Barium	mg/L	0.21	.1	.1	0.31	0.33	103	117	75-125	4	20	
Beryllium	mg/L	ND	.1	.1	0.10	0.11	102	105	75-125	3	20	
Boron	mg/L	2.8	1	1	3.7	3.9	97	117	75-125	5	20	
Cadmium	mg/L	ND	.1	.1	0.11	0.11	105	109	75-125	4	20	
Calcium	mg/L	27.1	1	1	28.2	29.4	108	227	75-125	4	20	M6
Cobalt	mg/L	0.0011J	.1	.1	0.11	0.11	106	111	75-125	4	20	
Lithium	mg/L	ND	.1	.1	0.10	0.10	101	104	75-125	3	20	
Selenium	mg/L	ND	.1	.1	0.11	0.11	108	110	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

QC Batch: 8493 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009, 266089010, 266089011

METHOD BLANK: 39082 Matrix: Water
Associated Lab Samples: 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009, 266089010, 266089011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	07/10/18 15:57	
Barium	mg/L	ND	0.010	0.00078	07/10/18 15:57	
Beryllium	mg/L	ND	0.0030	0.000050	07/10/18 15:57	
Boron	mg/L	ND	0.040	0.0039	07/10/18 15:57	
Cadmium	mg/L	ND	0.0010	0.000093	07/10/18 15:57	
Calcium	mg/L	ND	0.50	0.014	07/10/18 15:57	
Cobalt	mg/L	ND	0.010	0.00052	07/10/18 15:57	
Lithium	mg/L	ND	0.050	0.00097	07/10/18 15:57	
Selenium	mg/L	ND	0.010	0.0014	07/10/18 15:57	

LABORATORY CONTROL SAMPLE: 39083

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.11	105	80-120	
Barium	mg/L	.1	0.10	101	80-120	
Beryllium	mg/L	.1	0.11	106	80-120	
Boron	mg/L	1	1.1	113	80-120	
Cadmium	mg/L	.1	0.11	106	80-120	
Calcium	mg/L	1	1.0	104	80-120	
Cobalt	mg/L	.1	0.11	106	80-120	
Lithium	mg/L	.1	0.11	113	80-120	
Selenium	mg/L	.1	0.11	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 39185 39186

Parameter	Units	266089010 Result	MS Spike Conc.	MSD Spike Conc.	39185		39186		% Rec Limits	RPD	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec				
Arsenic	mg/L	0.00066J	.1	.1	0.10	0.099	103	99	75-125	5	20	
Barium	mg/L	0.046	.1	.1	0.15	0.16	107	109	75-125	1	20	
Beryllium	mg/L	0.00035J	.1	.1	0.093	0.096	92	96	75-125	4	20	
Boron	mg/L	0.25	1	1	1.2	1.2	91	93	75-125	2	20	
Cadmium	mg/L	0.00019J	.1	.1	0.10	0.099	105	98	75-125	6	20	
Calcium	mg/L	18.7J	1	1	18.7J	17.5J	2	-112	75-125	6	20	M6
Cobalt	mg/L	ND	.1	.1	0.10	0.099	103	99	75-125	4	20	
Lithium	mg/L	0.0065J	.1	.1	0.10	0.10	96	95	75-125	0	20	
Selenium	mg/L	0.0024J	.1	.1	0.11	0.10	106	98	75-125	7	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

QC Batch: 8816 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 266089001, 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009

METHOD BLANK: 40405 Matrix: Water
Associated Lab Samples: 266089001, 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.42	0.25	0.024	06/27/18 18:44	
Fluoride	mg/L	ND	0.30	0.029	06/27/18 18:44	
Sulfate	mg/L	ND	1.0	0.017	06/27/18 18:44	

LABORATORY CONTROL SAMPLE: 40406

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.2	92	90-110	
Fluoride	mg/L	10	10.5	105	90-110	
Sulfate	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 40407 40408

Parameter	Units	266085003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.0	10	10	11.4	11.5	94	95	90-110	1	15	
Fluoride	mg/L	ND	10	10	11.1	11.2	111	112	90-110	1	15	M1
Sulfate	mg/L	1.1	10	10	10.9	11.0	98	99	90-110	1	15	

MATRIX SPIKE SAMPLE: 40409

Parameter	Units	266085006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	17.6	10	25.1	76	90-110	M1
Fluoride	mg/L	ND	10	11.0	110	90-110	
Sulfate	mg/L	8.2	10	17.3	91	90-110	

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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

QC Batch: 9362 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 266089010, 266089011

METHOD BLANK: 42594 Matrix: Water
Associated Lab Samples: 266089010, 266089011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.41	0.25	0.024	07/07/18 02:32	
Fluoride	mg/L	ND	0.30	0.029	07/07/18 02:32	
Sulfate	mg/L	ND	1.0	0.017	07/07/18 02:32	

LABORATORY CONTROL SAMPLE: 42595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.9	99	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42596 42597

Parameter	Units	266698001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1910	10	10	108	318	-18000	-15900	90-110	98	15	E,M1, R2
Fluoride	mg/L	0.12J	10	10	10.2	10.2	100	101	90-110	1	15	
Sulfate	mg/L	352	10	10	222	222	-1290	-1290	90-110	0	15	E,M1

MATRIX SPIKE SAMPLE: 42598

Parameter	Units	266701006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4010	10	768	-32500	90-110	E
Fluoride	mg/L	0.12J	10	9.3	92	90-110	
Sulfate	mg/L	741	10	355	-3860	90-110	E

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

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWA-18S **Lab ID: 266089001** Collected: 06/11/18 12:45 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.236 ± 0.202 (0.360) C:93% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	0.413 ± 0.441 (0.920) C:79% T:74%	pCi/L	07/11/18 16:05	15262-20-1	
Total Radium	Total Radium Calculation	0.649 ± 0.643 (1.28)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWA-17S **Lab ID: 266089002** Collected: 06/11/18 14:55 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.290 ± 0.211 (0.321) C:90% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	0.611 ± 0.495 (0.996) C:74% T:79%	pCi/L	07/11/18 16:05	15262-20-1	
Total Radium	Total Radium Calculation	0.901 ± 0.706 (1.32)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: FB-1-6-11-18 **Lab ID: 266089003** Collected: 06/11/18 13:10 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.232 ± 0.231 (0.441) C:85% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	0.133 ± 0.364 (0.815) C:76% T:80%	pCi/L	07/11/18 16:05	15262-20-1	
Total Radium	Total Radium Calculation	0.365 ± 0.595 (1.26)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: EB-1-6-11-18 **Lab ID: 266089004** Collected: 06/11/18 15:20 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.219 ± 0.212 (0.391) C:86% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	0.486 ± 0.395 (0.785) C:76% T:78%	pCi/L	07/11/18 16:05	15262-20-1	
Total Radium	Total Radium Calculation	0.705 ± 0.607 (1.18)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-23S **Lab ID: 266089005** Collected: 06/12/18 10:00 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0603 ± 0.154 (0.373) C:91% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	0.968 ± 0.481 (0.828) C:79% T:73%	pCi/L	07/11/18 16:05	15262-20-1	
Total Radium	Total Radium Calculation	1.03 ± 0.635 (1.20)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: FB-2-6-12-18 **Lab ID: 266089006** Collected: 06/12/18 10:25 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.219 ± 0.206 (0.387) C:90% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	-0.150 ± 0.579 (1.38) C:76% T:70%	pCi/L	07/11/18 19:09	15262-20-1	
Total Radium	Total Radium Calculation	0.219 ± 0.785 (1.77)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-33S **Lab ID: 266089007** Collected: 06/12/18 12:46 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.356 ± 0.279 (0.509) C:88% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	0.277 ± 0.492 (1.08) C:79% T:84%	pCi/L	07/11/18 19:09	15262-20-1	
Total Radium	Total Radium Calculation	0.633 ± 0.771 (1.59)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-24S **Lab ID: 266089008** Collected: 06/12/18 14:47 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.363 ± 0.242 (0.368) C:89% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	0.365 ± 0.523 (1.12) C:78% T:77%	pCi/L	07/11/18 19:10	15262-20-1	
Total Radium	Total Radium Calculation	0.728 ± 0.765 (1.49)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: Dup-2 **Lab ID: 266089009** Collected: 06/12/18 00:00 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0265 ± 0.162 (0.428) C:79% T:NA	pCi/L	06/28/18 09:47	13982-63-3	
Radium-228	EPA 9320	-0.0875 ± 0.348 (0.837) C:75% T:76%	pCi/L	07/11/18 16:06	15262-20-1	
Total Radium	Total Radium Calculation	0.0265 ± 0.510 (1.27)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: YGWC-36 **Lab ID: 266089010** Collected: 06/13/18 10:52 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.337 ± 0.253 (0.451) C:95% T:NA	pCi/L	07/03/18 08:19	13982-63-3	
Radium-228	EPA 9320	0.701 ± 0.455 (0.844) C:74% T:68%	pCi/L	07/11/18 16:05	15262-20-1	
Total Radium	Total Radium Calculation	1.04 ± 0.708 (1.30)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

Sample: EB-2-6-13-18 **Lab ID: 266089011** Collected: 06/13/18 11:45 Received: 06/14/18 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.165 ± 0.179 (0.343) C:86% T:NA	pCi/L	07/03/18 08:20	13982-63-3	
Radium-228	EPA 9320	0.303 ± 0.565 (1.24) C:80% T:74%	pCi/L	07/11/18 19:07	15262-20-1	
Total Radium	Total Radium Calculation	0.468 ± 0.744 (1.58)	pCi/L	07/12/18 11:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

QC Batch:	302916	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	266089001, 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009		

METHOD BLANK:	1482110	Matrix:	Water
Associated Lab Samples:	266089001, 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.166 ± 0.207 (0.428) C:81% T:NA	pCi/L	06/28/18 08:14	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

QC Batch: 302917

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 266089010, 266089011

METHOD BLANK: 1482111

Matrix: Water

Associated Lab Samples: 266089010, 266089011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.338 ± 0.240 (0.382) C:97% T:NA	pCi/L	07/03/18 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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

QC Batch:	302923	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	266089001, 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009, 266089010, 266089011		

METHOD BLANK:	1482128	Matrix:	Water
Associated Lab Samples:	266089001, 266089002, 266089003, 266089004, 266089005, 266089006, 266089007, 266089008, 266089009, 266089010, 266089011		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.542 ± 0.336 (0.602) C:79% T:77%	pCi/L	07/11/18 16:05	

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds 3

Pace Project No.: 266089

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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

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-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H5 Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

R2 RPD value was outside control limits due to matrix interference

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
266089001	YGWA-18S	EPA 3005A	8416	EPA 6020B	8751
266089002	YGWA-17S	EPA 3005A	8493	EPA 6020B	9534
266089003	FB-1-6-11-18	EPA 3005A	8493	EPA 6020B	9534
266089004	EB-1-6-11-18	EPA 3005A	8493	EPA 6020B	9534
266089005	YGWC-23S	EPA 3005A	8493	EPA 6020B	9534
266089006	FB-2-6-12-18	EPA 3005A	8493	EPA 6020B	9534
266089007	YGWC-33S	EPA 3005A	8493	EPA 6020B	9534
266089008	YGWC-24S	EPA 3005A	8493	EPA 6020B	9534
266089009	Dup-2	EPA 3005A	8493	EPA 6020B	9534
266089010	YGWC-36	EPA 3005A	8493	EPA 6020B	9534
266089011	EB-2-6-13-18	EPA 3005A	8493	EPA 6020B	9534
266089001	YGWA-18S	EPA 9315	302916		
266089002	YGWA-17S	EPA 9315	302916		
266089003	FB-1-6-11-18	EPA 9315	302916		
266089004	EB-1-6-11-18	EPA 9315	302916		
266089005	YGWC-23S	EPA 9315	302916		
266089006	FB-2-6-12-18	EPA 9315	302916		
266089007	YGWC-33S	EPA 9315	302916		
266089008	YGWC-24S	EPA 9315	302916		
266089009	Dup-2	EPA 9315	302916		
266089010	YGWC-36	EPA 9315	302917		
266089011	EB-2-6-13-18	EPA 9315	302917		
266089001	YGWA-18S	EPA 9320	302923		
266089002	YGWA-17S	EPA 9320	302923		
266089003	FB-1-6-11-18	EPA 9320	302923		
266089004	EB-1-6-11-18	EPA 9320	302923		
266089005	YGWC-23S	EPA 9320	302923		
266089006	FB-2-6-12-18	EPA 9320	302923		
266089007	YGWC-33S	EPA 9320	302923		
266089008	YGWC-24S	EPA 9320	302923		
266089009	Dup-2	EPA 9320	302923		
266089010	YGWC-36	EPA 9320	302923		
266089011	EB-2-6-13-18	EPA 9320	302923		
266089001	YGWA-18S	Total Radium Calculation	305528		
266089002	YGWA-17S	Total Radium Calculation	305528		
266089003	FB-1-6-11-18	Total Radium Calculation	305528		
266089004	EB-1-6-11-18	Total Radium Calculation	305528		
266089005	YGWC-23S	Total Radium Calculation	305528		
266089006	FB-2-6-12-18	Total Radium Calculation	305528		
266089007	YGWC-33S	Total Radium Calculation	305528		
266089008	YGWC-24S	Total Radium Calculation	305528		
266089009	Dup-2	Total Radium Calculation	305528		
266089010	YGWC-36	Total Radium Calculation	305528		
266089011	EB-2-6-13-18	Total Radium Calculation	305528		
266089001	YGWA-18S	SM 2540C	8057		
266089002	YGWA-17S	SM 2540C	8057		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds 3
Pace Project No.: 266089

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
266089003	FB-1-6-11-18	SM 2540C	8057		
266089004	EB-1-6-11-18	SM 2540C	8057		
266089005	YGWC-23S	SM 2540C	8057		
266089006	FB-2-6-12-18	SM 2540C	8057		
266089007	YGWC-33S	SM 2540C	8057		
266089008	YGWC-24S	SM 2540C	8057		
266089009	Dup-2	SM 2540C	8057		
266089010	YGWC-36	SM 2540C	8153		
266089011	EB-2-6-13-18	SM 2540C	8153		
266089001	YGWA-18S	EPA 300.0	8816		
266089002	YGWA-17S	EPA 300.0	8816		
266089003	FB-1-6-11-18	EPA 300.0	8816		
266089004	EB-1-6-11-18	EPA 300.0	8816		
266089005	YGWC-23S	EPA 300.0	8816		
266089006	FB-2-6-12-18	EPA 300.0	8816		
266089007	YGWC-33S	EPA 300.0	8816		
266089008	YGWC-24S	EPA 300.0	8816		
266089009	Dup-2	EPA 300.0	8816		
266089010	YGWC-36	EPA 300.0	9362		
266089011	EB-2-6-13-18	EPA 300.0	9362		

REPORT OF LABORATORY ANALYSIS

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

Sample Condition Upon Receipt



Client Name: GAPower

Project # _____

WO#: 266089

Courier: Fed Ex UPS USPS Client Commercial Pace Other

PH: BM Due Date: 07/13/18
CLIENT: GAPower-CCR

Tracking #: _____
Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 33 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 5.3 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Date and initials of person examining contents: 6/14/18 MR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace 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	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix:	<u>GW</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):	_____		

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y N

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DEHP Certification Office i.e. out of hold, incorrect preservative, out of temp, incorrect containers

Product Name: Low-Flow System

Date: 2018-06-07 12:04:53

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 49 ft

Pump placement from TOC 44 ft

Well Information:

Well ID YGWA-4I
Well diameter 2 in
Well Total Depth 49.70 ft
Screen Length 10 ft
Depth to Water 22.66 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.8629838 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 17 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:44:13	1200.01	18.61	6.11	142.52	2.18	23.70	1.68	79.83
Last 5	11:49:13	1500.01	18.58	6.11	142.26	2.26	23.80	1.63	79.90
Last 5	11:54:13	1800.00	18.44	6.10	141.87	2.30	23.90	1.59	78.52
Last 5	11:59:13	2100.00	18.52	6.12	141.76	1.75	24.00	1.51	77.23
Last 5	12:04:13	2399.99	18.64	6.12	139.75	1.81	24.10	1.68	78.08
Variance 0			-0.14	-0.01	-0.39			-0.04	-1.38
Variance 1			0.09	0.01	-0.11			-0.08	-1.29
Variance 2			0.11	0.00	-2.01			0.17	0.85

Notes

Collected at 12:04. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-07 10:22:45

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID YGWA-5I
Well diameter 2 in
Well Total Depth 58.50 ft
Screen Length 10 ft
Depth to Water 19.25 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.9498584 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 4.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:02:04	1200.00	17.76	5.65	83.58	2.68	19.50	6.08	119.29
Last 5	10:07:04	1500.00	17.81	5.63	82.88	2.24	19.50	6.12	117.47
Last 5	10:12:05	1800.99	17.95	5.62	82.39	3.14	19.50	6.10	117.67
Last 5	10:17:05	2100.98	17.90	5.63	82.28	3.68	19.50	6.13	113.98
Last 5	10:22:05	2400.97	17.95	5.63	82.15	3.20	19.50	6.15	110.51
Variance 0			0.14	-0.00	-0.50			-0.02	0.21
Variance 1			-0.05	0.01	-0.10			0.03	-3.69
Variance 2			0.04	-0.00	-0.14			0.02	-3.47

Notes

Collected at 10:20. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-06 15:23:33

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 81 ft

Pump placement from TOC 106 ft

Well Information:

Well ID YGWA-5D
Well diameter 2 in
Well Total Depth 131.60 ft
Screen Length 50 ft
Depth to Water 26.84 ft

Pumping Information:

Final Pumping Rate 90 mL/min
Total System Volume 1.171871 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:02:41	1803.01	19.98	7.46	231.41	1.20	27.20	0.71	-59.13
Last 5	15:07:44	2106.01	20.11	7.44	227.16	1.24	27.20	0.62	-57.59
Last 5	15:12:45	2407.05	20.04	7.44	225.15	1.17	27.20	0.57	-59.60
Last 5	15:17:45	2707.01	19.89	7.44	224.06	1.04	27.20	0.46	-60.35
Last 5	15:22:45	3006.99	19.98	7.43	222.91	1.37	27.20	0.40	-61.37
Variance 0			-0.07	-0.00	-2.02			-0.04	-2.01
Variance 1			-0.15	0.00	-1.09			-0.11	-0.76
Variance 2			0.09	-0.01	-1.15			-0.06	-1.01

Notes

Collected at 15:22. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-11 14:56:09

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWA-17S
Well diameter 2 in
Well Total Depth 39.91 ft
Screen Length 10 ft
Depth to Water 12.85 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.7664565 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 10.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	14:35:01	2099.99	19.67	5.56	68.62	5.40	13.30	1.76	98.52
Last 5	14:40:01	2399.99	19.50	5.57	68.57	5.04	13.30	1.63	94.30
Last 5	14:45:01	2699.99	19.72	5.58	69.07	5.21	13.30	1.60	92.02
Last 5	14:50:01	2999.98	19.72	5.55	68.96	5.01	13.30	1.60	91.08
Last 5	14:55:01	3299.99	19.68	5.58	69.27	4.82	13.30	1.60	89.69
Variance 0			0.21	0.01	0.50			-0.02	-2.29
Variance 1			0.00	-0.04	-0.11			-0.00	-0.93
Variance 2			-0.04	0.03	0.30			-0.01	-1.39

Notes

Collected at 14:55. Cloudy 80's. EB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-08 12:04:51

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWA-18S
Well diameter 2 in
Well Total Depth 39.86 ft
Screen Length 10 ft
Depth to Water 20.44 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.7664565 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:40:01	9600.88	17.88	5.24	55.86	13.70	22.00	3.05	111.81
Last 5	11:45:01	9900.88	17.99	5.23	56.09	11.20	22.00	3.03	111.95
Last 5	11:50:01	10200.87	17.90	5.23	56.09	12.20	22.00	2.99	112.49
Last 5	11:55:01	10500.87	17.99	5.24	56.18	13.80	22.00	2.91	111.29
Last 5	12:00:02	10801.86	17.99	5.24	56.36	13.00	22.00	2.85	111.83
Variance 0			-0.09	0.00	0.00			-0.04	0.53
Variance 1			0.09	0.01	0.09			-0.08	-1.19
Variance 2			0.00	-0.01	0.18			-0.06	0.54

Notes

Did not sample. NTU not under 10. Must redevelop.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-11 12:46:40

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWA-18S
Well diameter 2 in
Well Total Depth 39.86 ft
Screen Length 10 ft
Depth to Water 20.49 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.7664565 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 214 in
Total Volume Pumped 79.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:25:19	600.02	17.98	5.29	58.24	4.82	38.40	6.06	106.85
Last 5	12:30:19	900.02	17.81	5.27	58.05	3.90	38.40	5.89	108.86
Last 5	12:35:19	1200.01	18.17	5.27	58.62	4.65	38.40	6.10	106.14
Last 5	12:40:19	1500.00	17.91	5.26	58.19	4.79	38.40	5.96	104.14
Last 5	12:45:19	1800.00	17.81	5.28	57.91	3.51	38.40	5.82	109.79
Variance 0			0.35	-0.00	0.57			0.22	-2.72
Variance 1			-0.26	-0.01	-0.43			-0.15	-2.00
Variance 2			-0.09	0.02	-0.28			-0.14	5.65

Notes

Collected at 12:45. Sampled after well redevelopment. Cloudy 80's. FB-1-6-11-18 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-07 14:44:17

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 79 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWA-18I
Well diameter 2 in
Well Total Depth 79.67 ft
Screen Length 10 ft
Depth to Water 23.77 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.152566 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	14:22:12	1799.99	18.17	5.99	106.93	3.55	24.00	3.38	104.33
Last 5	14:27:12	2099.99	18.10	6.01	106.91	3.31	24.00	3.49	97.81
Last 5	14:32:16	2404.01	17.95	6.00	106.43	3.19	24.00	3.49	94.33
Last 5	14:37:16	2704.00	17.98	5.96	106.26	3.46	24.00	3.50	93.82
Last 5	14:42:16	3004.00	17.99	5.98	106.06	2.97	24.00	3.56	91.01
Variance 0			-0.16	-0.01	-0.49			0.00	-3.49
Variance 1			0.04	-0.04	-0.16			0.00	-0.51
Variance 2			0.01	0.02	-0.20			0.06	-2.81

Notes

Collected at 14:42. Sunny 90's. Extra Rad here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-06 13:47:36

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 29 ft

Pump placement from TOC 24 ft

Well Information:

Well ID YGWA-20S
Well diameter 2 in
Well Total Depth 29.71 ft
Screen Length 10 ft
Depth to Water 11.85 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6699292 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11 in
Total Volume Pumped 7.15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:26:42	600.02	18.29	5.88	51.88	10.80	12.80	6.07	132.91
Last 5	13:31:42	900.01	18.33	5.87	51.45	7.14	12.80	5.97	124.83
Last 5	13:36:42	1200.00	18.33	5.86	51.71	6.20	12.80	5.96	118.98
Last 5	13:41:45	1503.00	18.12	5.86	51.38	6.40	12.80	5.90	114.05
Last 5	13:46:45	1802.99	18.18	5.86	51.32	4.86	12.80	5.80	110.25
Variance 0			0.00	-0.00	0.26			-0.01	-5.86
Variance 1			-0.21	0.00	-0.33			-0.06	-4.92
Variance 2			0.06	-0.00	-0.06			-0.10	-3.80

Notes

Collected at 13:16. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-05 16:19:37

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466086
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWA-21I
Well diameter 2 in
Well Total Depth 80.07 ft
Screen Length 10 ft
Depth to Water 32.25 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 1.162218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 30 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:52:01	6015.95	20.95	6.06	139.56	1.15	34.80	0.50	81.46
Last 5	15:57:01	6315.94	21.38	6.14	140.21	0.97	34.80	0.51	76.14
Last 5	16:07:01	6915.93	21.69	6.12	139.65	1.14	34.80	0.69	72.18
Last 5	16:12:01	7215.93	21.63	6.19	139.27	1.12	34.80	0.58	70.12
Last 5	16:17:01	7515.93	21.41	6.09	138.96	1.02	34.80	0.83	75.67
Variance 0			0.31	-0.03	-0.56			0.18	-3.97
Variance 1			-0.06	0.07	-0.38			-0.11	-2.06
Variance 2			-0.21	-0.10	-0.30			0.25	5.55

Notes

Collected at 16:16 on 6-5-18. Cloudy 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-12 10:02:11

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWC-23S
Well diameter 2 in
Well Total Depth 39.18 ft
Screen Length 10 ft
Depth to Water 14.33 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.7664565 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	09:40:26	900.02	17.81	5.76	118.97	9.38	--	8.01	107.54
Last 5	09:45:26	1200.02	17.86	5.71	118.08	4.63	--	8.04	105.36
Last 5	09:50:27	1501.02	17.86	5.69	117.28	3.90	--	8.03	101.42
Last 5	09:55:27	1801.01	17.83	5.67	116.24	3.12	0.00	8.05	101.31
Last 5	10:00:27	2101.00	17.88	5.63	116.19	2.90	--	8.05	98.22
Variance 0			0.00	-0.02	-0.80			-0.01	-3.94
Variance 1			-0.03	-0.02	-1.04			0.02	-0.11
Variance 2			0.04	-0.04	-0.05			-0.00	-3.09

Notes

Collected at 10:00. Cloudy 70's. Could not record water level due to transducer in well. FB-2-6-12-18 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-12 14:48:00

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 57 ft

Pump placement from TOC 52 ft

Well Information:

Well ID YGWC-24S
Well diameter 2 in
Well Total Depth 57.01 ft
Screen Length 10 ft
Depth to Water 28.05 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9402057 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7 in
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	14:27:10	1800.01	19.64	5.64	60.74	2.24	28.70	6.14	127.09
Last 5	14:32:10	2100.01	19.50	5.64	60.79	1.31	28.70	6.22	121.60
Last 5	14:37:10	2400.01	19.37	5.64	61.01	1.65	28.70	6.23	117.46
Last 5	14:42:10	2700.00	19.64	5.65	61.17	1.04	28.70	6.28	114.79
Last 5	14:47:10	2999.99	19.68	5.64	61.04	1.02	28.70	6.26	112.68
Variance 0			-0.13	0.00	0.22			0.01	-4.14
Variance 1			0.26	0.00	0.16			0.04	-2.67
Variance 2			0.04	-0.00	-0.13			-0.02	-2.11

Notes

Collected at 14:47. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-12 12:49:15

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID YGWC-33S
Well diameter 2 in
Well Total Depth 38.73 ft
Screen Length 10 ft
Depth to Water 10.18 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.7568038 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 31.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:26:52	5101.97	19.91	4.02	1207.14	6.13	10.70	0.07	231.46
Last 5	12:31:52	5401.97	20.18	4.03	1203.03	6.17	10.70	0.07	231.71
Last 5	12:36:52	5701.96	20.04	4.03	1205.89	5.82	10.70	0.07	230.17
Last 5	12:41:52	6001.96	19.97	4.03	1205.54	5.54	10.70	0.07	232.29
Last 5	12:46:52	6301.96	20.04	4.03	1205.86	4.24	10.70	0.07	231.21
Variance 0			-0.14	-0.00	2.87			-0.00	-1.54
Variance 1			-0.07	0.00	-0.35			0.00	2.12
Variance 2			0.07	0.00	0.32			0.00	-1.08

Notes

Collected at 12:46. Cloudy 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-13 10:55:45

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Phase 1 CCR
Site Name Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-36
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 10.18 ft

Pumping Information:

Final Pumping Rate 175 mL/min
Total System Volume 0.9691639 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 15.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:32:26	4199.97	20.17	5.49	364.35	6.17	--	1.03	95.73
Last 5	10:37:26	4499.96	20.15	5.50	364.09	6.06	--	1.01	96.37
Last 5	10:42:26	4799.96	20.05	5.50	364.80	6.09	--	0.98	94.11
Last 5	10:47:26	5099.94	20.17	5.51	364.17	5.38	--	0.96	91.66
Last 5	10:52:26	5399.94	20.06	5.50	363.73	4.67	--	0.93	90.43
Variance 0			-0.09	-0.00	0.71			-0.03	-2.26
Variance 1			0.12	0.01	-0.63			-0.03	-2.45
Variance 2			-0.11	-0.01	-0.44			-0.03	-1.22

Notes

Collected at 10:52. Cloudy 70's. EB-2 here. Transducer in well made recording water level not possible. Initial water level from 6/5/2018.

Grab Samples

October 05, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

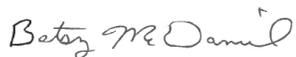
RE: Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2018. 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,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

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

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269800001	YGWA-17S	Water	09/25/18 16:00	09/27/18 17:25
269800002	YGWA-18S	Water	09/25/18 19:45	09/27/18 17:25
269800003	YGWA-18I	Water	09/25/18 16:20	09/27/18 17:25
269800004	YGWA-20S	Water	09/25/18 14:10	09/27/18 17:25
269800005	YGWA-21I	Water	09/25/18 11:45	09/27/18 17:25
269800006	YGWC-24S	Water	09/26/18 14:05	09/27/18 17:25
269800007	YGWC-33S	Water	09/26/18 11:10	09/27/18 17:25
269800008	YGWC-36	Water	09/26/18 12:35	09/27/18 17:25
269800009	EB-1-9-26-18	Water	09/26/18 12:15	09/27/18 17:25
269800010	FB-2-9-26-18	Water	09/26/18 14:00	09/27/18 17:25
269800011	YGWA-4I	Water	09/26/18 14:20	09/27/18 17:25
269800012	YGWA-5I	Water	09/26/18 11:50	09/27/18 17:25
269800013	YGWA-5D	Water	09/26/18 10:15	09/27/18 17:25
269800014	Dup-1	Water	09/26/18 00:00	09/27/18 17:25
269800015	FB-1-9-26-18	Water	09/26/18 09:50	09/27/18 17:25
269800016	YGWC-23S	Water	09/27/18 13:00	09/27/18 17:25
269800017	EB-2-9-27-18	Water	09/27/18 11:20	09/27/18 17:25
269800018	Dup-2	Water	09/27/18 00:00	09/27/18 17:25

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Lab ID	Sample ID	Method	Analysts	Analytes Reported
269800001	YGWA-17S	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800002	YGWA-18S	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800003	YGWA-18I	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800004	YGWA-20S	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800005	YGWA-21I	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800006	YGWC-24S	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800007	YGWC-33S	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800008	YGWC-36	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800009	EB-1-9-26-18	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800010	FB-2-9-26-18	EPA 6020B	CSW	9

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Lab ID	Sample ID	Method	Analysts	Analytes Reported
269800011	YGWA-4I	EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	9
		EPA 7470A	DRB	1
269800012	YGWA-5I	SM 2540C	JPT	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
269800013	YGWA-5D	EPA 300.0	RLC	3
		EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800014	Dup-1	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	9
269800015	FB-1-9-26-18	EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	9
		EPA 7470A	DRB	1
269800016	YGWC-23S	SM 2540C	JPT	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
269800017	EB-2-9-27-18	EPA 300.0	RLC	3
		EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269800018	Dup-2	EPA 6020B	CSW	9
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	9

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Sample: YGWA-17S		Lab ID: 269800001		Collected: 09/25/18 16:00		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 18:04	7440-38-2	
Barium	0.014	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 18:04	7440-39-3	
Beryllium	0.000089J	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 18:04	7440-41-7	
Boron	0.0096J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 18:04	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 18:04	7440-43-9	
Calcium	2.1	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 18:04	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 18:04	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 18:04	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 18:04	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 17:32	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	86.0	mg/L	25.0	10.0	1		09/28/18 15:53		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.6	mg/L	0.25	0.024	1		10/02/18 18:30	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/02/18 18:30	16984-48-8	
Sulfate	6.1	mg/L	1.0	0.017	1		10/02/18 18:30	14808-79-8	M1,R1

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Sample: YGWA-18S		Lab ID: 269800002		Collected: 09/25/18 19:45		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 18:15	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 18:15	7440-39-3	
Beryllium	0.000082J	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 18:15	7440-41-7	
Boron	0.0070J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 18:15	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 18:15	7440-43-9	
Calcium	1.0	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 18:15	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 18:15	7440-48-4	
Lithium	0.0016J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 18:15	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 18:15	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 17:47	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	63.0	mg/L	25.0	10.0	1		09/28/18 15:53		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	7.8	mg/L	0.25	0.024	1	10/02/18 19:38	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1	10/02/18 19:38	16984-48-8		
Sulfate	1.5	mg/L	1.0	0.017	1	10/02/18 19:38	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWA-18I		Lab ID: 269800003		Collected: 09/25/18 16:20		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 18:27	7440-38-2		
Barium	0.023	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 18:27	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 18:27	7440-41-7		
Boron	0.0046J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 18:27	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 18:27	7440-43-9		
Calcium	4.6	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 18:27	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 18:27	7440-48-4		
Lithium	0.0036J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 18:27	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 18:27	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 17:49	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	109	mg/L	25.0	10.0	1		09/28/18 15:53			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	7.9	mg/L	0.25	0.024	1		10/02/18 20:01	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/02/18 20:01	16984-48-8		
Sulfate	1.0	mg/L	1.0	0.017	1		10/02/18 20:01	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWA-20S		Lab ID: 269800004		Collected: 09/25/18 14:10		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 18:38	7440-38-2	
Barium	0.015	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 18:38	7440-39-3	
Beryllium	0.000061J	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 18:38	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 18:38	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 18:38	7440-43-9	
Calcium	2.3	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 18:38	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 18:38	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 18:38	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 18:38	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 17:52	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	73.0	mg/L	25.0	10.0	1		09/28/18 15:53		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	3.6	mg/L	0.25	0.024	1		10/02/18 20:23	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/02/18 20:23	16984-48-8	
Sulfate	0.13J	mg/L	1.0	0.017	1		10/02/18 20:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWA-211		Lab ID: 269800005		Collected: 09/25/18 11:45		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	0.0022J	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 19:01	7440-38-2		
Barium	0.011	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 19:01	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 19:01	7440-41-7		
Boron	0.0054J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 19:01	7440-42-8		
Cadmium	0.000096J	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 19:01	7440-43-9		
Calcium	10.4J	mg/L	25.0	0.69	50	10/02/18 11:06	10/04/18 19:07	7440-70-2	D3	
Cobalt	0.0044J	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 19:01	7440-48-4		
Lithium	0.0062J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 19:01	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 19:01	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 17:54	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	122	mg/L	25.0	10.0	1		09/28/18 15:53			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	2.2	mg/L	0.25	0.024	1		10/02/18 20:46	16887-00-6		
Fluoride	0.029J	mg/L	0.30	0.029	1		10/02/18 20:46	16984-48-8		
Sulfate	7.0	mg/L	1.0	0.017	1		10/02/18 20:46	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWC-24S		Lab ID: 269800006		Collected: 09/26/18 14:05	Received: 09/27/18 17:25	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 19:41	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 19:41	7440-39-3	
Beryllium	0.00014J	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 19:41	7440-41-7	
Boron	0.0055J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 19:41	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 19:41	7440-43-9	
Calcium	1.7	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 19:41	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 19:41	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 19:41	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 19:41	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 17:56	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	59.0	mg/L	25.0	10.0	1		09/28/18 15:53		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	6.9	mg/L	0.25	0.024	1		10/02/18 21:08	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/02/18 21:08	16984-48-8	
Sulfate	0.28J	mg/L	1.0	0.017	1		10/02/18 21:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWC-33S		Lab ID: 269800007		Collected: 09/26/18 11:10		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	0.0048J	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 20:04	7440-38-2	
Barium	0.012	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 20:04	7440-39-3	
Beryllium	0.024	mg/L	0.015	0.00025	5	10/02/18 11:06	10/05/18 15:52	7440-41-7	
Boron	13.4	mg/L	2.0	0.20	50	10/02/18 11:06	10/04/18 20:10	7440-42-8	
Cadmium	0.0028	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 20:04	7440-43-9	
Calcium	144	mg/L	25.0	0.69	50	10/02/18 11:06	10/04/18 20:10	7440-70-2	
Cobalt	0.023	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 20:04	7440-48-4	
Lithium	0.034J	mg/L	0.25	0.0049	5	10/02/18 11:06	10/05/18 15:52	7439-93-2	
Selenium	0.016	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 20:04	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 17:59	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1280	mg/L	25.0	10.0	1		09/28/18 15:54		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.7	mg/L	0.25	0.024	1		10/02/18 21:31	16887-00-6	
Fluoride	0.070J	mg/L	0.30	0.029	1		10/02/18 21:31	16984-48-8	
Sulfate	895	mg/L	50.0	0.85	50		10/03/18 06:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Sample: YGWC-36		Lab ID: 269800008		Collected: 09/26/18 12:35		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 20:15	7440-38-2		
Barium	0.048	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 20:15	7440-39-3		
Beryllium	0.00032J	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 20:15	7440-41-7		
Boron	0.24	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 20:15	7440-42-8		
Cadmium	0.00018J	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 20:15	7440-43-9		
Calcium	19.8J	mg/L	25.0	0.69	50	10/02/18 11:06	10/04/18 20:21	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 20:15	7440-48-4		
Lithium	0.0063J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 20:15	7439-93-2		
Selenium	0.0037J	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 20:15	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:01	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	277	mg/L	25.0	10.0	1		09/28/18 15:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	6.0	mg/L	0.25	0.024	1		10/02/18 21:54	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/02/18 21:54	16984-48-8		
Sulfate	160	mg/L	10.0	0.17	10		10/03/18 06:35	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Sample: EB-1-9-26-18		Lab ID: 269800009		Collected: 09/26/18 12:15	Received: 09/27/18 17:25	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 20:27	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 20:27	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 20:27	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 20:27	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 20:27	7440-43-9		
Calcium	0.30J	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 20:27	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 20:27	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 20:27	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 20:27	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:08	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	14.0J	mg/L	25.0	10.0	1		09/28/18 15:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.12J	mg/L	0.25	0.024	1		10/02/18 23:47	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/02/18 23:47	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/02/18 23:47	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: FB-2-9-26-18		Lab ID: 269800010		Collected: 09/26/18 14:00		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 20:33	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 20:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 20:33	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 20:33	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 20:33	7440-43-9	
Calcium	0.015J	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 20:33	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 20:33	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 20:33	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 20:33	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:11	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		09/28/18 15:54		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.080J	mg/L	0.25	0.024	1		10/03/18 00:10	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 00:10	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		10/03/18 00:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWA-4I		Lab ID: 269800011		Collected: 09/26/18 14:20		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 20:38	7440-38-2		
Barium	0.016	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 20:38	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 20:38	7440-41-7		
Boron	0.0050J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 20:38	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 20:38	7440-43-9		
Calcium	9.5J	mg/L	25.0	0.69	50	10/02/18 11:06	10/04/18 20:44	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 20:38	7440-48-4		
Lithium	0.014J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 20:38	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 20:38	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:13	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	116	mg/L	25.0	10.0	1		09/28/18 15:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.8	mg/L	0.25	0.024	1		10/03/18 00:55	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 00:55	16984-48-8		
Sulfate	10.2	mg/L	1.0	0.017	1		10/03/18 00:55	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWA-5I		Lab ID: 269800012		Collected: 09/26/18 11:50		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 20:50	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 20:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 20:50	7440-41-7	
Boron	0.0057J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 20:50	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 20:50	7440-43-9	
Calcium	2.3	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 20:50	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 20:50	7440-48-4	
Lithium	0.0032J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 20:50	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 20:50	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:15	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	86.0	mg/L	25.0	10.0	1		09/28/18 15:54		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.1	mg/L	0.25	0.024	1		10/03/18 01:18	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 01:18	16984-48-8	
Sulfate	2.3	mg/L	1.0	0.017	1		10/03/18 01:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWA-5D		Lab ID: 269800013		Collected: 09/26/18 10:15		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	0.0014J	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 21:13	7440-38-2		
Barium	0.0075J	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 21:13	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 21:13	7440-41-7		
Boron	0.010J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 21:13	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 21:13	7440-43-9		
Calcium	25.8	mg/L	25.0	0.69	50	10/02/18 11:06	10/04/18 21:18	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 21:13	7440-48-4		
Lithium	0.0065J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 21:13	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 21:13	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:18	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	144	mg/L	25.0	10.0	1		09/28/18 15:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.8	mg/L	0.25	0.024	1		10/03/18 01:40	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 01:40	16984-48-8		
Sulfate	7.9	mg/L	1.0	0.017	1		10/03/18 01:40	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: Dup-1		Lab ID: 269800014		Collected: 09/26/18 00:00		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 21:24	7440-38-2		
Barium	0.016	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 21:24	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 21:24	7440-41-7		
Boron	0.0040J	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 21:24	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 21:24	7440-43-9		
Calcium	9.3J	mg/L	25.0	0.69	50	10/02/18 11:06	10/04/18 21:30	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 21:24	7440-48-4		
Lithium	0.014J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 21:24	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 21:24	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:20	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	121	mg/L	25.0	10.0	1		09/28/18 15:54			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.8	mg/L	0.25	0.024	1		10/03/18 02:03	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 02:03	16984-48-8		
Sulfate	10.2	mg/L	1.0	0.017	1		10/03/18 02:03	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Sample: FB-1-9-26-18		Lab ID: 269800015		Collected: 09/26/18 09:50		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 21:35	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 21:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 21:35	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 21:35	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 21:35	7440-43-9	
Calcium	0.015J	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 21:35	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 21:35	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 21:35	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 21:35	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:22	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		10/01/18 15:22		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.073J	mg/L	0.25	0.024	1		10/03/18 02:26	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 02:26	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		10/03/18 02:26	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: YGWC-23S		Lab ID: 269800016		Collected: 09/27/18 13:00		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 21:41	7440-38-2		
Barium	0.022	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 21:41	7440-39-3		
Beryllium	0.000090J	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 21:41	7440-41-7		
Boron	0.71	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 21:41	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 21:41	7440-43-9		
Calcium	4.1	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 21:41	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 21:41	7440-48-4		
Lithium	0.0017J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 21:41	7439-93-2		
Selenium	0.023	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 21:41	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:25	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	105	mg/L	25.0	10.0	1		10/01/18 15:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	2.0	mg/L	0.25	0.024	1		10/03/18 02:48	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 02:48	16984-48-8		
Sulfate	39.6	mg/L	1.0	0.017	1		10/03/18 02:48	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Sample: EB-2-9-27-18		Lab ID: 269800017		Collected: 09/27/18 11:20		Received: 09/27/18 17:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 21:53	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 21:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 21:53	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 21:53	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 21:53	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 21:53	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 21:53	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 21:53	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 21:53	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:27	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	43.0	mg/L	25.0	10.0	1		10/01/18 15:23		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.072J	mg/L	0.25	0.024	1		10/03/18 03:11	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 03:11	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		10/03/18 03:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Sample: Dup-2		Lab ID: 269800018		Collected: 09/27/18 00:00		Received: 09/27/18 17:25		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/02/18 11:06	10/04/18 21:58	7440-38-2		
Barium	0.022	mg/L	0.010	0.00078	1	10/02/18 11:06	10/04/18 21:58	7440-39-3		
Beryllium	0.000082J	mg/L	0.0030	0.000050	1	10/02/18 11:06	10/04/18 21:58	7440-41-7		
Boron	0.72	mg/L	0.040	0.0039	1	10/02/18 11:06	10/04/18 21:58	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/02/18 11:06	10/04/18 21:58	7440-43-9		
Calcium	3.9	mg/L	0.50	0.014	1	10/02/18 11:06	10/04/18 21:58	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/02/18 11:06	10/04/18 21:58	7440-48-4		
Lithium	0.0017J	mg/L	0.050	0.00097	1	10/02/18 11:06	10/04/18 21:58	7439-93-2		
Selenium	0.023	mg/L	0.010	0.0014	1	10/02/18 11:06	10/04/18 21:58	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/03/18 13:05	10/03/18 18:29	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	81.0	mg/L	25.0	10.0	1		10/01/18 15:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	2.0	mg/L	0.25	0.024	1		10/03/18 05:04	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/03/18 05:04	16984-48-8		
Sulfate	39.2	mg/L	1.0	0.017	1		10/03/18 05:04	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

QC Batch: 14660 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 269800001, 269800002, 269800003, 269800004, 269800005, 269800006, 269800007, 269800008, 269800009, 269800010, 269800011, 269800012, 269800013, 269800014, 269800015, 269800016, 269800017, 269800018

METHOD BLANK: 65436 Matrix: Water
Associated Lab Samples: 269800001, 269800002, 269800003, 269800004, 269800005, 269800006, 269800007, 269800008, 269800009, 269800010, 269800011, 269800012, 269800013, 269800014, 269800015, 269800016, 269800017, 269800018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	10/03/18 17:28	

LABORATORY CONTROL SAMPLE: 65437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 65438 65439

Parameter	Units	269800001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0025	0.0025	99	99	75-125	1	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

QC Batch: 14541 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 269800001, 269800002, 269800003, 269800004, 269800005, 269800006, 269800007, 269800008, 269800009, 269800010, 269800011, 269800012, 269800013, 269800014, 269800015, 269800016, 269800017, 269800018

METHOD BLANK: 64963 Matrix: Water
Associated Lab Samples: 269800001, 269800002, 269800003, 269800004, 269800005, 269800006, 269800007, 269800008, 269800009, 269800010, 269800011, 269800012, 269800013, 269800014, 269800015, 269800016, 269800017, 269800018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	10/04/18 17:53	
Barium	mg/L	ND	0.010	0.00078	10/04/18 17:53	
Beryllium	mg/L	ND	0.0030	0.000050	10/04/18 17:53	
Boron	mg/L	ND	0.040	0.0039	10/04/18 17:53	
Cadmium	mg/L	ND	0.0010	0.000093	10/04/18 17:53	
Calcium	mg/L	ND	0.50	0.014	10/04/18 17:53	
Cobalt	mg/L	ND	0.010	0.00052	10/04/18 17:53	
Lithium	mg/L	ND	0.050	0.00097	10/04/18 17:53	
Selenium	mg/L	ND	0.010	0.0014	10/04/18 17:53	

LABORATORY CONTROL SAMPLE: 64964

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	103	80-120	
Barium	mg/L	.1	0.10	101	80-120	
Beryllium	mg/L	.1	0.10	104	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	.1	0.10	103	80-120	
Calcium	mg/L	1	1.0	103	80-120	
Cobalt	mg/L	.1	0.11	108	80-120	
Lithium	mg/L	.1	0.11	108	80-120	
Selenium	mg/L	.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 64972 64973

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		269800005 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	0.0022J	.1	.1	0.11	0.10	103	102	75-125	2	20	
Barium	mg/L	0.011	.1	.1	0.11	0.11	100	95	75-125	4	20	
Beryllium	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	2	20	
Boron	mg/L	0.0054J	1	1	0.97	0.94	97	94	75-125	3	20	
Cadmium	mg/L	0.000096J	.1	.1	0.10	0.10	103	102	75-125	1	20	
Calcium	mg/L	10.4J	1	1	11.3J	11.5J	93	118	75-125	2	20	
Cobalt	mg/L	0.0044J	.1	.1	0.11	0.11	106	103	75-125	3	20	
Lithium	mg/L	0.0062J	.1	.1	0.11	0.10	101	97	75-125	4	20	
Selenium	mg/L	ND	.1	.1	0.10	0.10	104	103	75-125	1	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

QC Batch: 14554 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 269800001, 269800002, 269800003, 269800004, 269800005, 269800006, 269800007, 269800008, 269800009, 269800010, 269800011, 269800012, 269800013, 269800014, 269800015, 269800016, 269800017, 269800018

METHOD BLANK: 65003 Matrix: Water
Associated Lab Samples: 269800001, 269800002, 269800003, 269800004, 269800005, 269800006, 269800007, 269800008, 269800009, 269800010, 269800011, 269800012, 269800013, 269800014, 269800015, 269800016, 269800017, 269800018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.083J	0.25	0.024	10/02/18 17:45	
Fluoride	mg/L	ND	0.30	0.029	10/02/18 17:45	
Sulfate	mg/L	ND	1.0	0.017	10/02/18 17:45	

LABORATORY CONTROL SAMPLE: 65004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.9	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 65005 65006

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		269800001 Result	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	5.6	10	10	15.8	15.8	101	102	90-110	0	15
Fluoride	mg/L	ND	10	10	10.7	10.7	107	107	90-110	0	15
Sulfate	mg/L	6.1	10	10	20.4	16.8	143	108	90-110	19	15 M1,R1

MATRIX SPIKE SAMPLE: 65007

Parameter	Units	269800002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	7.8	10	17.3	95	90-110	
Fluoride	mg/L	ND	10	10.3	103	90-110	
Sulfate	mg/L	1.5	10	12.5	110	90-110	

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

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.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 269800

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269800001	YGWA-17S	EPA 3005A	14541	EPA 6020B	14593
269800002	YGWA-18S	EPA 3005A	14541	EPA 6020B	14593
269800003	YGWA-18I	EPA 3005A	14541	EPA 6020B	14593
269800004	YGWA-20S	EPA 3005A	14541	EPA 6020B	14593
269800005	YGWA-21I	EPA 3005A	14541	EPA 6020B	14593
269800006	YGWC-24S	EPA 3005A	14541	EPA 6020B	14593
269800007	YGWC-33S	EPA 3005A	14541	EPA 6020B	14593
269800008	YGWC-36	EPA 3005A	14541	EPA 6020B	14593
269800009	EB-1-9-26-18	EPA 3005A	14541	EPA 6020B	14593
269800010	FB-2-9-26-18	EPA 3005A	14541	EPA 6020B	14593
269800011	YGWA-4I	EPA 3005A	14541	EPA 6020B	14593
269800012	YGWA-5I	EPA 3005A	14541	EPA 6020B	14593
269800013	YGWA-5D	EPA 3005A	14541	EPA 6020B	14593
269800014	Dup-1	EPA 3005A	14541	EPA 6020B	14593
269800015	FB-1-9-26-18	EPA 3005A	14541	EPA 6020B	14593
269800016	YGWC-23S	EPA 3005A	14541	EPA 6020B	14593
269800017	EB-2-9-27-18	EPA 3005A	14541	EPA 6020B	14593
269800018	Dup-2	EPA 3005A	14541	EPA 6020B	14593
269800001	YGWA-17S	EPA 7470A	14660	EPA 7470A	14684
269800002	YGWA-18S	EPA 7470A	14660	EPA 7470A	14684
269800003	YGWA-18I	EPA 7470A	14660	EPA 7470A	14684
269800004	YGWA-20S	EPA 7470A	14660	EPA 7470A	14684
269800005	YGWA-21I	EPA 7470A	14660	EPA 7470A	14684
269800006	YGWC-24S	EPA 7470A	14660	EPA 7470A	14684
269800007	YGWC-33S	EPA 7470A	14660	EPA 7470A	14684
269800008	YGWC-36	EPA 7470A	14660	EPA 7470A	14684
269800009	EB-1-9-26-18	EPA 7470A	14660	EPA 7470A	14684
269800010	FB-2-9-26-18	EPA 7470A	14660	EPA 7470A	14684
269800011	YGWA-4I	EPA 7470A	14660	EPA 7470A	14684
269800012	YGWA-5I	EPA 7470A	14660	EPA 7470A	14684
269800013	YGWA-5D	EPA 7470A	14660	EPA 7470A	14684
269800014	Dup-1	EPA 7470A	14660	EPA 7470A	14684
269800015	FB-1-9-26-18	EPA 7470A	14660	EPA 7470A	14684
269800016	YGWC-23S	EPA 7470A	14660	EPA 7470A	14684
269800017	EB-2-9-27-18	EPA 7470A	14660	EPA 7470A	14684
269800018	Dup-2	EPA 7470A	14660	EPA 7470A	14684
269800001	YGWA-17S	SM 2540C	14416		
269800002	YGWA-18S	SM 2540C	14416		
269800003	YGWA-18I	SM 2540C	14416		
269800004	YGWA-20S	SM 2540C	14416		
269800005	YGWA-21I	SM 2540C	14416		
269800006	YGWC-24S	SM 2540C	14416		
269800007	YGWC-33S	SM 2540C	14416		
269800008	YGWC-36	SM 2540C	14416		
269800009	EB-1-9-26-18	SM 2540C	14416		
269800010	FB-2-9-26-18	SM 2540C	14416		
269800011	YGWA-4I	SM 2540C	14416		
269800012	YGWA-5I	SM 2540C	14416		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 269800

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269800013	YGWA-5D	SM 2540C	14416		
269800014	Dup-1	SM 2540C	14416		
269800015	FB-1-9-26-18	SM 2540C	14462		
269800016	YGWC-23S	SM 2540C	14462		
269800017	EB-2-9-27-18	SM 2540C	14462		
269800018	Dup-2	SM 2540C	14462		
269800001	YGWA-17S	EPA 300.0	14554		
269800002	YGWA-18S	EPA 300.0	14554		
269800003	YGWA-18I	EPA 300.0	14554		
269800004	YGWA-20S	EPA 300.0	14554		
269800005	YGWA-21I	EPA 300.0	14554		
269800006	YGWC-24S	EPA 300.0	14554		
269800007	YGWC-33S	EPA 300.0	14554		
269800008	YGWC-36	EPA 300.0	14554		
269800009	EB-1-9-26-18	EPA 300.0	14554		
269800010	FB-2-9-26-18	EPA 300.0	14554		
269800011	YGWA-4I	EPA 300.0	14554		
269800012	YGWA-5I	EPA 300.0	14554		
269800013	YGWA-5D	EPA 300.0	14554		
269800014	Dup-1	EPA 300.0	14554		
269800015	FB-1-9-26-18	EPA 300.0	14554		
269800016	YGWC-23S	EPA 300.0	14554		
269800017	EB-2-9-27-18	EPA 300.0	14554		
269800018	Dup-2	EPA 300.0	14554		

REPORT OF LABORATORY ANALYSIS

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



Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

PAGE: 1 OF 2

CLIENT NAME: Georgia Power
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-506-7239

REPORT TO: Joju Abraham
 CC: Maria Padilla
 Heath McCorkle

REQUESTED COMPLETION DATE: PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates - Ash Pond 3

PROJECT #: Phase 2CCR

CONTAINER TYPE	ANALYSIS REQUESTED	RELINQUISHED BY:	DATE/TIME:
3	Metals App. III (EPA 6020/7470) Boron, Calcium Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	<i>[Signature]</i>	9-27-18 0900
4	Y6WA-17S		
4	Y6WA-18S		
4	Y6WA-18I		
4	Y6WA-20S		
4	Y6WA-21I		
5	Y6WC-24S		
4	Y6WC-33S		
4	Y6WC-3L		
4	FB-1-9-26-18		
4	FB-2-9-26-18		

CONTAINER TYPE: P - PLASTIC, A - AMBER GLASS, G - CLEAR GLASS, V - VOA VIAL, S - STERILE, O - OTHER

PRESERVATION: 1 - HCl, ≤6°C, 2 - H₂SO₄, ≤6°C, 3 - HNO₃, 4 - NaOH, ≤6°C, 5 - NaOH/ZnAc, ≤6°C, 6 - Na₂S₂O₃, ≤6°C, 7 - ≤6°C not frozen

*MATRIX CODES:
 DW - DRINKING WATER, S - SOIL
 WW - WASTEWATER, SL - SLUDGE
 GW - GROUNDWATER, SD - SOLID
 SW - SURFACE WATER, A - AIR
 ST - STORM WATER, L - LIQUID
 W - WATER, P - PRODUCT

REMARKS/ADDITIONAL INFORMATION: extra Red bottle collected

WO#: 269800

DATE/TIME: 9-27-18/1725

LAB #: FOR LAB USE ONLY

ENTERED INTO LIMS: Tracking #:

RECEIVED BY LAB: *[Signature]* H. Auld

DATE/TIME: 09/27/18 1725

TEMPERATURE: Min: 0.2 Max: []

LOGGED: Yes [] No []

PH CHECKED: Yes [] No []

SEAL: Intact [] Broken []

CUSTOMER SEAL: []

COOLERS: # of Coolers []

COURIER: []

CLIENT: []

OTHER: []

FS: []



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Cooler Temperature 0.2

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

WO#: 269800

PM: BM Due Date: 10/05/18

CLIENT: GAPower-CCR

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 9/27/18 MR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace 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	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix:	<u>GIW</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):	_____			

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

October 26, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 269801

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2018. 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,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269801001	YGWA-17S	Water	09/25/18 16:00	09/27/18 17:25
269801002	YGWA-18S	Water	09/25/18 19:45	09/27/18 17:25
269801003	YGWA-18I	Water	09/25/18 16:20	09/27/18 17:25
269801004	YGWA-20S	Water	09/25/18 14:10	09/27/18 17:25
269801005	YGWA-21I	Water	09/25/18 11:45	09/27/18 17:25
269801006	YGWC-24S	Water	09/26/18 14:05	09/27/18 17:25
269801007	YGWC-33S	Water	09/26/18 11:10	09/27/18 17:25
269801008	YGWC-36	Water	09/26/18 12:35	09/27/18 17:25
269801009	EB-1-9-26-18	Water	09/26/18 12:15	09/27/18 17:25
269801010	FB-2-9-26-18	Water	09/26/18 14:00	09/27/18 17:25
269801011	YGWA-4I	Water	09/26/18 14:20	09/27/18 17:25
269801012	YGWA-5I	Water	09/26/18 11:50	09/27/18 17:25
269801013	YGWA-5D	Water	09/26/18 10:15	09/27/18 17:25
269801014	Dup-1	Water	09/26/18 00:00	09/27/18 17:25
269801015	FB-1-9-26-18	Water	09/26/18 09:50	09/27/18 17:25
269801016	YGWC-23S	Water	09/27/18 13:00	09/27/18 17:25
269801017	EB-2-9-27-18	Water	09/27/18 11:20	09/27/18 17:25
269801018	Dup-2	Water	09/27/18 00:00	09/27/18 17:25

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
269801001	YGWA-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801002	YGWA-18S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801003	YGWA-18I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801004	YGWA-20S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801005	YGWA-21I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801006	YGWC-24S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801007	YGWC-33S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801008	YGWC-36	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801009	EB-1-9-26-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801010	FB-2-9-26-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801011	YGWA-4I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801012	YGWA-5I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801013	YGWA-5D	EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
269801014	Dup-1	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
269801015	FB-1-9-26-18	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269801016	YGWC-23S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
269801017	EB-2-9-27-18	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
269801018	Dup-2	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-17S **Lab ID: 269801001** Collected: 09/25/18 16:00 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.149 ± 0.151 (0.281) C:94% T:NA	pCi/L	10/10/18 08:28	13982-63-3	
Radium-228	EPA 9320	0.531 ± 0.342 (0.651) C:78% T:96%	pCi/L	10/17/18 12:36	15262-20-1	
Total Radium	Total Radium Calculation	0.680 ± 0.493 (0.932)	pCi/L	10/19/18 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-18S **Lab ID: 269801002** Collected: 09/25/18 19:45 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.194 ± 0.138 (0.203) C:112% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	0.380 ± 0.349 (0.710) C:79% T:87%	pCi/L	10/17/18 12:36	15262-20-1	
Total Radium	Total Radium Calculation	0.574 ± 0.487 (0.913)	pCi/L	10/19/18 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-181 **Lab ID: 269801003** Collected: 09/25/18 16:20 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.117 ± 0.125 (0.237) C:98% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	0.0240 ± 0.317 (0.730) C:80% T:86%	pCi/L	10/17/18 12:36	15262-20-1	
Total Radium	Total Radium Calculation	0.141 ± 0.442 (0.967)	pCi/L	10/19/18 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-20S **Lab ID: 269801004** Collected: 09/25/18 14:10 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.368 ± 0.205 (0.294) C:100% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	0.404 ± 0.361 (0.731) C:76% T:87%	pCi/L	10/17/18 12:36	15262-20-1	
Total Radium	Total Radium Calculation	0.772 ± 0.566 (1.03)	pCi/L	10/19/18 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-211 **Lab ID: 269801005** Collected: 09/25/18 11:45 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.643 ± 0.254 (0.232) C:98% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	0.976 ± 0.391 (0.606) C:78% T:93%	pCi/L	10/17/18 12:37	15262-20-1	
Total Radium	Total Radium Calculation	1.62 ± 0.645 (0.838)	pCi/L	10/19/18 13:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWC-24S **Lab ID: 269801006** Collected: 09/26/18 14:05 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.172 ± 0.146 (0.259) C:102% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	0.809 ± 0.357 (0.580) C:78% T:93%	pCi/L	10/17/18 12:37	15262-20-1	
Total Radium	Total Radium Calculation	0.981 ± 0.503 (0.839)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWC-33S **Lab ID: 269801007** Collected: 09/26/18 11:10 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.255 ± 0.179 (0.307) C:107% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	1.12 ± 0.477 (0.792) C:75% T:96%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	1.38 ± 0.656 (1.10)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWC-36 **Lab ID: 269801008** Collected: 09/26/18 12:35 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.241 ± 0.185 (0.326) C:96% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	0.363 ± 0.358 (0.737) C:73% T:91%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.604 ± 0.543 (1.06)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: EB-1-9-26-18 **Lab ID: 269801009** Collected: 09/26/18 12:15 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.134 ± 0.136 (0.258) C:102% T:NA	pCi/L	10/10/18 08:42	13982-63-3	
Radium-228	EPA 9320	0.308 ± 0.388 (0.825) C:75% T:86%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.442 ± 0.524 (1.08)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: FB-2-9-26-18 **Lab ID: 269801010** Collected: 09/26/18 14:00 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0660 ± 0.122 (0.280) C:103% T:NA	pCi/L	10/10/18 09:50	13982-63-3	
Radium-228	EPA 9320	-0.281 ± 0.332 (0.837) C:77% T:82%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.0660 ± 0.454 (1.12)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-4I **Lab ID: 269801011** Collected: 09/26/18 14:20 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.756 ± 0.298 (0.357) C:101% T:NA	pCi/L	10/10/18 09:50	13982-63-3	
Radium-228	EPA 9320	-0.0417 ± 0.331 (0.776) C:77% T:91%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.756 ± 0.629 (1.13)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-5I **Lab ID: 269801012** Collected: 09/26/18 11:50 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.163 ± 0.159 (0.302) C:99% T:NA	pCi/L	10/10/18 09:50	13982-63-3	
Radium-228	EPA 9320	0.214 ± 0.343 (0.744) C:76% T:93%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.377 ± 0.502 (1.05)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWA-5D **Lab ID: 269801013** Collected: 09/26/18 10:15 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.16 ± 0.523 (0.264) C:98% T:NA	pCi/L	10/10/18 09:50	13982-63-3	
Radium-228	EPA 9320	0.568 ± 0.388 (0.743) C:76% T:86%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	2.73 ± 0.911 (1.01)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: Dup-1 **Lab ID: 269801014** Collected: 09/26/18 00:00 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.429 ± 0.218 (0.287) C:101% T:NA	pCi/L	10/10/18 09:53	13982-63-3	
Radium-228	EPA 9320	0.550 ± 0.378 (0.721) C:76% T:85%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.979 ± 0.596 (1.01)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: FB-1-9-26-18 **Lab ID: 269801015** Collected: 09/26/18 09:50 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0421 ± 0.114 (0.277) C:101% T:NA	pCi/L	10/10/18 09:51	13982-63-3	
Radium-228	EPA 9320	0.331 ± 0.370 (0.775) C:75% T:86%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.373 ± 0.484 (1.05)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: YGWC-23S **Lab ID: 269801016** Collected: 09/27/18 13:00 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.127 ± 0.155 (0.326) C:100% T:NA	pCi/L	10/10/18 09:51	13982-63-3	
Radium-228	EPA 9320	0.928 ± 0.462 (0.804) C:75% T:84%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	1.06 ± 0.617 (1.13)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: EB-2-9-27-18 **Lab ID: 269801017** Collected: 09/27/18 11:20 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0755 ± 0.135 (0.306) C:103% T:NA	pCi/L	10/10/18 09:51	13982-63-3	
Radium-228	EPA 9320	0.348 ± 0.337 (0.690) C:78% T:89%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.424 ± 0.472 (0.996)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Sample: Dup-2 **Lab ID: 269801018** Collected: 09/27/18 00:00 Received: 09/27/18 17:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0730 ± 0.123 (0.275) C:97% T:NA	pCi/L	10/10/18 09:51	13982-63-3	
Radium-228	EPA 9320	0.101 ± 0.336 (0.761) C:75% T:83%	pCi/L	10/17/18 15:48	15262-20-1	
Total Radium	Total Radium Calculation	0.174 ± 0.459 (1.04)	pCi/L	10/19/18 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

QC Batch:	315401	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	269801001, 269801002, 269801003, 269801004, 269801005, 269801006, 269801007, 269801008, 269801009, 269801010, 269801011, 269801012, 269801013, 269801014, 269801015, 269801016, 269801017, 269801018		

METHOD BLANK:	1539351	Matrix:	Water
Associated Lab Samples:	269801001, 269801002, 269801003, 269801004, 269801005, 269801006, 269801007, 269801008, 269801009, 269801010, 269801011, 269801012, 269801013, 269801014, 269801015, 269801016, 269801017, 269801018		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.409 ± 0.322 (0.634) C:82% T:83%	pCi/L	10/17/18 12:37	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

QC Batch:	315400	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	269801001, 269801002, 269801003, 269801004, 269801005, 269801006, 269801007, 269801008, 269801009, 269801010, 269801011, 269801012, 269801013, 269801014, 269801015, 269801016, 269801017, 269801018		

METHOD BLANK:	1539350	Matrix:	Water
Associated Lab Samples:	269801001, 269801002, 269801003, 269801004, 269801005, 269801006, 269801007, 269801008, 269801009, 269801010, 269801011, 269801012, 269801013, 269801014, 269801015, 269801016, 269801017, 269801018		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.187 ± 0.174 (0.329) C:96% T:NA	pCi/L	10/10/18 08:28	

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds
Pace Project No.: 269801

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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 269801

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269801001	YGWA-17S	EPA 9315	315400		
269801002	YGWA-18S	EPA 9315	315400		
269801003	YGWA-18I	EPA 9315	315400		
269801004	YGWA-20S	EPA 9315	315400		
269801005	YGWA-21I	EPA 9315	315400		
269801006	YGWC-24S	EPA 9315	315400		
269801007	YGWC-33S	EPA 9315	315400		
269801008	YGWC-36	EPA 9315	315400		
269801009	EB-1-9-26-18	EPA 9315	315400		
269801010	FB-2-9-26-18	EPA 9315	315400		
269801011	YGWA-4I	EPA 9315	315400		
269801012	YGWA-5I	EPA 9315	315400		
269801013	YGWA-5D	EPA 9315	315400		
269801014	Dup-1	EPA 9315	315400		
269801015	FB-1-9-26-18	EPA 9315	315400		
269801016	YGWC-23S	EPA 9315	315400		
269801017	EB-2-9-27-18	EPA 9315	315400		
269801018	Dup-2	EPA 9315	315400		
269801001	YGWA-17S	EPA 9320	315401		
269801002	YGWA-18S	EPA 9320	315401		
269801003	YGWA-18I	EPA 9320	315401		
269801004	YGWA-20S	EPA 9320	315401		
269801005	YGWA-21I	EPA 9320	315401		
269801006	YGWC-24S	EPA 9320	315401		
269801007	YGWC-33S	EPA 9320	315401		
269801008	YGWC-36	EPA 9320	315401		
269801009	EB-1-9-26-18	EPA 9320	315401		
269801010	FB-2-9-26-18	EPA 9320	315401		
269801011	YGWA-4I	EPA 9320	315401		
269801012	YGWA-5I	EPA 9320	315401		
269801013	YGWA-5D	EPA 9320	315401		
269801014	Dup-1	EPA 9320	315401		
269801015	FB-1-9-26-18	EPA 9320	315401		
269801016	YGWC-23S	EPA 9320	315401		
269801017	EB-2-9-27-18	EPA 9320	315401		
269801018	Dup-2	EPA 9320	315401		
269801001	YGWA-17S	Total Radium Calculation	317357		
269801002	YGWA-18S	Total Radium Calculation	317357		
269801003	YGWA-18I	Total Radium Calculation	317357		
269801004	YGWA-20S	Total Radium Calculation	317357		
269801005	YGWA-21I	Total Radium Calculation	317357		
269801006	YGWC-24S	Total Radium Calculation	317360		
269801007	YGWC-33S	Total Radium Calculation	317360		
269801008	YGWC-36	Total Radium Calculation	317360		
269801009	EB-1-9-26-18	Total Radium Calculation	317360		
269801010	FB-2-9-26-18	Total Radium Calculation	317360		
269801011	YGWA-4I	Total Radium Calculation	317360		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 269801

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269801012	YGWA-5I	Total Radium Calculation	317360		
269801013	YGWA-5D	Total Radium Calculation	317360		
269801014	Dup-1	Total Radium Calculation	317360		
269801015	FB-1-9-26-18	Total Radium Calculation	317360		
269801016	YGWC-23S	Total Radium Calculation	317360		
269801017	EB-2-9-27-18	Total Radium Calculation	317360		
269801018	Dup-2	Total Radium Calculation	317360		

REPORT OF LABORATORY ANALYSIS

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



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 2

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-505-7239		REPORT TO: Joji Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Yates - Ash Pond 3 PROJECT #: Phase 2 CCR	
Collection DATE	Collection TIME	MATRIX CODE*	CONTAINER TYPE	ANALYSIS REQUESTED	REMARKS/ADDITIONAL INFORMATION
9-25-18	1600	GW	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3 Metals App. III (EPA 6020/7470) Boron Calcium Cl, F, SO ₄ & TDS (EPA 800.0 & SM 2540C)	extra Rad bottle collected DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT
9-25-18	1945	GW	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3 Detectable App. IV As, Ba, Be, Cd, Co, Cr, Se	
9-25-18	1620	GW	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3 Radium 226 + 228	
9-25-18	1410	GW	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3	
9-25-18	1145	GW	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3	
9-26-18	1405	GW	5	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3	
9-26-18	1110	GW	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3	
9-26-18	1735	GW	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3	
9-26-18	1215	W	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3	
9-26-18	1400	W	4	<input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 3	

WO#: 269801

SAMPLED BY AND TITLE: C. Pa... H. Av... RECEIVED BY:	DATE/TIME: 9-27-18 0900 DATE/TIME:	RELINQUISHED BY: [Signature] DATE/TIME: 9-27-18 1725	RELINQUISHED BY: [Signature]
RECEIVED BY LAB: [Signature] Checked:	DATE/TIME: 09/27/18 1725 Temperature: Min: 0.2 Max:	DATE/TIME: 9-27-18 1725 DATE/TIME:	DATE/TIME: 9-27-18 1725
LAB #: 269801	FOR LAB USE ONLY	Tracking #:	Entered into LIMS:



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle REQUESTED COMPLETION DATE: PO # laburch@southernco.com		PROJECT NAME/STATE: Plant Yates - Ash Pond 3 PROJECT #: Phase 2 CCR					
Collection DATE	Collection TIME	MATRIX CODE*	CGOR M A B	SAMPLE IDENTIFICATION	CONTAINER TYPE PRESERVATION # of	ANALYSIS REQUESTED	RELINQUISHED BY	DATE/TIME	
9-26-18	1420	GW	✓	Y6WA-41	3	Metals App III (EPA 6020/7470) Boron, Calcium CI, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	John	9-27-18 1430	
9-26-18	1150	GW	✓	Y6WA-51	3	As, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Si, V, Zn	John	9-27-18 1725	
9-26-18	1015	GW	✓	Y6WA-5D	3	As, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Si, V, Zn	John	9-27-18 1725	
9-26-18	---	GW	✓	DUP-1	3	As, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Si, V, Zn	John	9-27-18 1725	
9-26-18	0950	W	✓	FB-1-9-26-18	3	As, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Si, V, Zn	John	9-27-18 1725	
9-27-18	1300	GW	✓	Y6WC-235	3	As, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Si, V, Zn	John	9-27-18 1725	
9-27-18	1120	W	✓	FB-2-9-27-18	3	As, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Si, V, Zn	John	9-27-18 1725	
9-27-18	---	GW	✓	DUP-2	3	As, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Se, Si, V, Zn	John	9-27-18 1725	
SAMPLED BY AND TITLE: John Park ACF		DATE/TIME: 9-27-18 1430		RELINQUISHED BY: John		DATE/TIME: 9-27-18 1725		FOR LAB USE ONLY	
RECEIVED BY: John		DATE/TIME: 9-27-18 1725		RECEIVED BY LAB: John		DATE/TIME: 9-27-18 1725		LAB #: 1725	
Temperature: Min: 0.2 Max:		Seal: Intact Broken Not Present		CLIENT: Other FS		Entered into LIMS: Tracking #:		Container ID:	



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

WO#: 269801
PM: BM Due Date: 10/26/18
CLIENT: GAPower-CCR

Cooler Temperature 0.2 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Samples on ice, cooling process has begun
Date and Initials of person examining contents: 9/27/18 MR

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace 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	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix:	<u>GLW</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):	_____			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2018-09-26 14:21:34

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond
Site Name Plant Yates - Ash Ponds
Latitude 33° 27' 46.22"
Longitude -84° -53' -53.23"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID YGWA-4I
Well diameter 2 in
Well Total Depth 49.70 ft
Screen Length 10 ft
Depth to Water 24.13 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.9676365 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 4.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:59:30	300.07	18.97	5.48	142.24	3.93	24.60	3.29	104.59
Last 5	14:04:30	600.06	18.12	5.64	155.26	4.20	24.90	1.83	95.45
Last 5	14:09:30	900.05	17.85	5.77	156.77	3.48	25.00	1.66	89.22
Last 5	14:14:30	1200.04	17.71	5.83	157.03	3.54	25.10	1.64	86.10
Last 5	14:19:30	1500.05	17.50	5.84	156.00	3.20	25.10	1.65	85.03
Variance 0			-0.27	0.13	1.51			-0.17	-6.22
Variance 1			-0.15	0.07	0.27			-0.02	-3.13
Variance 2			-0.21	0.01	-1.03			0.01	-1.07

Notes

Collected at 14:20. Cloudy 80s. DUP 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 11:46:29

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond
Site Name Plant Yates - Ash Ponds
Latitude 33° 27' 46.22"
Longitude -84° -53' -53.23"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID YGWA-5I
Well diameter 2 in
Well Total Depth 58.50 ft
Screen Length 10 ft
Depth to Water 20.82 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 1.044858 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:21:04	1800.02	18.10	5.85	88.78	4.55	21.00	6.36	63.62
Last 5	11:26:04	2100.03	17.71	5.79	87.75	4.31	21.00	6.30	66.57
Last 5	11:31:04	2400.03	17.64	5.71	88.02	3.61	21.00	6.38	70.38
Last 5	11:36:04	2700.02	17.57	5.63	87.64	3.96	21.00	6.34	74.77
Last 5	11:41:04	3000.02	17.77	5.63	87.42	3.66	21.00	6.34	75.25
Variance 0			-0.07	-0.08	0.27			0.08	3.82
Variance 1			-0.07	-0.08	-0.39			-0.04	4.39
Variance 2			0.21	0.00	-0.22			-0.01	0.48

Notes

Collected at 11:50. Cloudy 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 10:15:27

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond
Site Name Plant Yates - Ash Ponds
Latitude 33° 27' 46.22"
Longitude -84° -53' -53.23"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 110 ft

Pump placement from TOC 106 ft

Well Information:

Well ID YGWA-5D
Well diameter 2 in
Well Total Depth 131.60 ft
Screen Length 10 ft
Depth to Water 26.37 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.5468 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:48:37	900.04	16.83	7.08	243.39	6.85	26.70	0.25	-14.03
Last 5	09:53:37	1200.04	16.78	7.14	242.80	4.87	26.70	0.18	-25.33
Last 5	09:58:37	1500.02	16.94	7.13	229.44	3.98	26.70	0.16	-26.18
Last 5	10:03:38	1801.03	16.94	7.14	224.48	2.56	26.70	0.15	-29.87
Last 5	10:08:38	2101.02	17.14	7.13	222.34	2.32	26.70	0.14	-32.73
Variance 0			0.16	-0.01	-13.36			-0.02	-0.85
Variance 1			-0.00	0.01	-4.96			-0.02	-3.69
Variance 2			0.19	-0.01	-2.13			-0.01	-2.86

Notes

Collected at 1:15. Cloudy 70s. FB 1 here at 09:50

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 16:11:01

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Ash Ponds
Site Name Plant Yates-AP-3
Latitude 33° 27' 18.95"
Longitude -84° -53' -14.71"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID YGWA-17S
Well diameter 2 in
Well Total Depth 39.91 ft
Screen Length 10 ft
Depth to Water 14.36 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.7938874 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.28 in
Total Volume Pumped 6.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	15:39:59	600.02	19.78	5.61	69.53	7.18	14.80	1.81	183.16
Last 5	15:44:59	900.02	19.63	5.60	70.71	--	14.80	1.64	174.56
Last 5	15:49:59	1200.02	19.55	5.59	71.53	5.73	14.80	1.56	167.78
Last 5	15:54:59	1500.01	19.54	5.60	72.46	5.75	14.80	1.53	162.33
Last 5	15:59:59	1800.01	19.47	5.59	72.76	4.65	14.80	1.50	158.96
Variance 0			-0.09	-0.00	0.82			-0.08	-6.77
Variance 1			-0.01	0.00	0.92			-0.03	-5.45
Variance 2			-0.08	-0.00	0.30			-0.02	-3.38

Notes

Sampled at 1600 on 9-25-18. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 19:44:41

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond
Site Name Plant Yates - Ash Ponds
Latitude 33° 27' 46.22"
Longitude -84° -53' -53.23"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID YGWA-18S
Well diameter 2 in
Well Total Depth 39.86 ft
Screen Length 10 ft
Depth to Water 22.07 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	19:21:58	9314.91	17.19	4.86	61.02	9.06	22.70	3.46	160.15
Last 5	19:26:58	9615.91	17.05	4.96	60.96	9.19	22.70	3.47	155.45
Last 5	19:32:03	9920.90	17.09	4.63	61.15	8.89	22.70	3.53	170.57
Last 5	19:37:03	10220.90	17.10	4.77	61.11	9.06	22.70	3.47	163.67
Last 5	19:42:03	10520.89	17.22	4.86	61.20	8.87	22.70	3.50	159.81
Variance 0			0.04	-0.33	0.19			0.07	15.12
Variance 1			0.00	0.14	-0.04			-0.06	-6.89
Variance 2			0.12	0.09	0.09			0.02	-3.86

Notes

Collected at 19:45. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 16:21:33

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond
Site Name Plant Yates - Ash Ponds
Latitude 33° 27' 46.22"
Longitude -84° -53' -53.23"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWA-18I
Well diameter 2 in
Well Total Depth 79.67 ft
Screen Length 10 ft
Depth to Water 25.24 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 8.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:59:25	1800.03	17.50	6.05	116.28	3.98	25.40	3.32	94.04
Last 5	16:04:25	2100.03	17.50	5.99	116.85	3.85	25.40	3.35	91.86
Last 5	16:09:26	2401.02	17.36	5.90	116.90	3.32	25.40	3.40	93.11
Last 5	16:14:26	2701.02	17.34	5.85	116.85	4.10	25.40	3.45	93.08
Last 5	16:19:26	3001.01	17.41	5.81	116.92	3.82	25.40	3.50	92.96
Variance 0			-0.14	-0.09	0.05			0.05	1.25
Variance 1			-0.02	-0.05	-0.05			0.06	-0.04
Variance 2			0.07	-0.04	0.07			0.04	-0.11

Notes

Collected at 16:20. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 14:16:44

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- AP-3-Phase 2 CCR
Site Name Plant Yates
Latitude 33° 27' 39.74"
Longitude -84° -54' -27.69"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 29 ft

Pump placement from TOC 24 ft

Well Information:

Well ID YGWA-20S
Well diameter 2 in
Well Total Depth 29.71 ft
Screen Length 10 ft
Depth to Water 12.77 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.006248 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:52:03	2400.00	19.99	5.87	56.94	9.70	13.30	4.95	162.75
Last 5	13:57:03	2700.01	20.48	5.86	56.38	8.20	13.30	4.92	166.09
Last 5	14:02:04	3000.05	20.44	5.86	56.45	--	--	4.82	176.14
Last 5	14:07:03	3300.01	20.41	5.85	56.41	5.80	13.30	4.89	188.36
Last 5	14:12:03	3599.99	20.40	5.84	56.16	4.59	13.30	4.87	203.70
Variance 0			-0.05	0.00	0.08			-0.10	10.05
Variance 1			-0.03	-0.01	-0.04			0.07	12.23
Variance 2			-0.01	-0.02	-0.26			-0.03	15.34

Notes

Sampled at 1410 on 9-25-18. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 11:47:17

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Ash Pond 3
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 81 ft

Pump placement from TOC 76 ft

Well Information:

Well ID YGWA-21I
Well diameter 2 in
Well Total Depth 80.07 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 1.266871 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 2.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	11:24:40	900.02	22.67	6.49	147.28	2.05	--	1.08	22.17
Last 5	11:29:40	1200.02	22.49	6.57	149.54	1.88	--	0.67	9.78
Last 5	11:34:43	1503.02	22.54	6.64	150.11	1.81	--	0.53	2.50
Last 5	11:39:43	1803.03	22.44	6.66	149.75	1.31	--	0.51	-0.59
Last 5	11:44:49	2109.03	22.26	6.67	149.75	1.34	--	0.52	-5.01
Variance 0			0.05	0.08	0.57			-0.14	-7.28
Variance 1			-0.09	0.02	-0.36			-0.02	-3.09
Variance 2			-0.19	0.01	0.01			0.01	-4.42

Notes

Sampled at 1145 on 9-25-18. Cloudy 80s. No water level due to transducer in well.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 13:00:51

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond
Site Name Plant Yates - Ash Ponds
Latitude 33° 27' 46.22"
Longitude -84° -53' -53.23"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 40 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWC-23S
Well diameter 2 in
Well Total Depth 39.18 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:38:04	2400.02	17.77	5.72	115.18	3.09	--	8.69	120.29
Last 5	12:43:04	2700.01	17.54	5.58	114.21	2.65	--	8.61	122.84
Last 5	12:48:04	3000.04	17.57	5.53	114.18	2.78	--	8.69	123.04
Last 5	12:53:07	3303.03	17.72	5.47	114.00	2.11	--	8.70	123.76
Last 5	12:58:07	3603.03	17.74	5.47	113.49	2.28	--	8.64	124.09
Variance 0			0.03	-0.05	-0.03			0.08	0.20
Variance 1			0.15	-0.06	-0.18			0.01	0.72
Variance 2			0.02	-0.01	-0.51			-0.06	0.33

Notes

Collected at 13:00. Sunny 80s. EB 2 here. DUP 2 here. Unable to get water level - transducer in well.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 14:13:17

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Ash Pond
Site Name Plant Yates - Ash Pond
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID YGWC-24S
Well diameter 2 in
Well Total Depth 57.01 ft
Screen Length 10 ft
Depth to Water 28.99 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.044858 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.12 in
Total Volume Pumped 5.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:46:23	600.03	21.15	5.64	61.85	2.09	29.50	6.48	277.95
Last 5	13:51:23	900.03	20.84	5.62	62.06	3.07	29.50	6.62	217.84
Last 5	13:56:23	1200.02	20.66	5.60	62.10	2.39	29.50	6.46	180.40
Last 5	14:01:23	1500.02	20.64	5.61	62.38	2.40	29.50	6.57	163.59
Last 5	14:06:23	1800.01	20.48	5.61	62.30	2.30	29.50	6.55	160.10
Variance 0			-0.18	-0.02	0.04			-0.16	-37.44
Variance 1			-0.02	0.01	0.28			0.11	-16.81
Variance 2			-0.15	0.00	-0.08			-0.02	-3.50

Notes

Sampled at 1405 on 9-26-18. Sunny 80s. FB-2 poured here at 1400. Extra Rad here at 1405.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 11:15:56

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Ash Pond
Site Name Plant Yates - Ash Pond
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWC-33S
Well diameter 2 in
Well Total Depth 38.73 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 280 mL/min
Total System Volume 0.8614565 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	10:53:58	600.02	19.88	3.96	1333.88	7.03	--	0.27	253.71
Last 5	10:58:59	901.01	19.95	3.96	1334.11	5.24	--	0.17	246.55
Last 5	11:04:00	1202.01	19.91	3.96	1335.12	5.18	--	0.14	267.44
Last 5	11:09:00	1502.00	20.17	3.97	1331.07	4.54	--	0.13	239.25
Last 5	11:14:00	1802.00	20.13	3.97	1333.04	4.49	--	0.12	233.54
Variance 0			-0.04	-0.00	1.01			-0.03	20.89
Variance 1			0.26	0.01	-4.05			-0.01	-28.20
Variance 2			-0.04	0.00	1.97			-0.01	-5.70

Notes

Sampled at 1110 on 9-26-18. Cloudy 70s. No WL due to transducer in well.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 12:37:41

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Ash Pond
Site Name Plant Yates - Ash Pond
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-36
Well diameter 2 in
Well Total Depth 60.0 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	12:16:04	600.02	21.43	5.56	376.21	2.17	--	1.75	130.19
Last 5	12:21:04	900.02	21.70	5.54	373.32	2.34	--	1.42	170.18
Last 5	12:26:05	1201.02	21.42	5.54	372.98	1.78	--	1.38	215.36
Last 5	12:31:08	1504.01	21.15	5.53	375.07	2.82	--	1.38	246.98
Last 5	12:36:08	1804.01	21.24	5.53	374.04	2.24	--	1.36	256.13
Variance 0			-0.28	-0.00	-0.34			-0.04	45.18
Variance 1			-0.27	-0.00	2.09			-0.00	31.62
Variance 2			0.09	-0.00	-1.03			-0.02	9.15

Notes

Sampled at 1235 on 9-26-18. Sunny, 80s. EB-1 here at 12:15.

Grab Samples

October 23, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 2610582

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2018. 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,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 2610582

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

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 2610582

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2610582001	YAMW-1	Water	10/16/18 11:00	10/17/18 16:15
2610582002	PZ-35	Water	10/16/18 12:35	10/17/18 16:15

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 2610582

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2610582001	YAMW-1	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610582002	PZ-35	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 2610582

Sample: YAMW-1		Lab ID: 2610582001		Collected: 10/16/18 11:00		Received: 10/17/18 16:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/19/18 11:16	10/19/18 16:21	7440-38-2		
Barium	0.048	mg/L	0.010	0.00078	1	10/19/18 11:16	10/19/18 16:21	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/19/18 11:16	10/19/18 16:21	7440-41-7		
Boron	0.20	mg/L	0.040	0.0039	1	10/19/18 11:16	10/19/18 16:21	7440-42-8		
Cadmium	0.00014J	mg/L	0.0010	0.000093	1	10/19/18 11:16	10/19/18 16:21	7440-43-9		
Calcium	14.5J	mg/L	25.0	0.69	50	10/19/18 11:16	10/19/18 16:26	7440-70-2	D3,M6	
Cobalt	0.032	mg/L	0.010	0.00052	1	10/19/18 11:16	10/19/18 16:21	7440-48-4		
Lithium	0.0052J	mg/L	0.050	0.00097	1	10/19/18 11:16	10/19/18 16:21	7439-93-2		
Selenium	0.0019J	mg/L	0.010	0.0014	1	10/19/18 11:16	10/19/18 16:21	7782-49-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	209	mg/L	25.0	10.0	1		10/18/18 13:17			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	12.1	mg/L	0.25	0.024	1		10/19/18 22:23	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/19/18 22:23	16984-48-8		
Sulfate	83.7	mg/L	5.0	0.085	5		10/23/18 13:53	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2610582

Sample: PZ-35		Lab ID: 2610582002		Collected: 10/16/18 12:35		Received: 10/17/18 16:15		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	0.00069J	mg/L	0.0050	0.00057	1	10/19/18 11:16	10/19/18 17:32	7440-38-2	
Barium	0.063	mg/L	0.010	0.00078	1	10/19/18 11:16	10/19/18 17:32	7440-39-3	
Beryllium	0.00036J	mg/L	0.0030	0.000050	1	10/19/18 11:16	10/19/18 17:32	7440-41-7	
Boron	0.031J	mg/L	0.040	0.0039	1	10/19/18 11:16	10/19/18 17:32	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/19/18 11:16	10/19/18 17:32	7440-43-9	
Calcium	6.5	mg/L	0.50	0.014	1	10/19/18 11:16	10/19/18 17:32	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/19/18 11:16	10/19/18 17:32	7440-48-4	
Lithium	0.0011J	mg/L	0.050	0.00097	1	10/19/18 11:16	10/19/18 17:32	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/19/18 11:16	10/19/18 17:32	7782-49-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	123	mg/L	25.0	10.0	1		10/18/18 13:17		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	8.5	mg/L	0.25	0.024	1		10/19/18 23:31	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/19/18 23:31	16984-48-8	
Sulfate	34.2	mg/L	1.0	0.017	1		10/19/18 23:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 2610582

QC Batch: 15677 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2610582001, 2610582002

METHOD BLANK: 69912 Matrix: Water
Associated Lab Samples: 2610582001, 2610582002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	10/19/18 16:09	
Barium	mg/L	ND	0.010	0.00078	10/19/18 16:09	
Beryllium	mg/L	ND	0.0030	0.000050	10/19/18 16:09	
Boron	mg/L	ND	0.040	0.0039	10/19/18 16:09	
Cadmium	mg/L	ND	0.0010	0.000093	10/19/18 16:09	
Calcium	mg/L	ND	0.50	0.014	10/19/18 16:09	
Cobalt	mg/L	ND	0.010	0.00052	10/19/18 16:09	
Lithium	mg/L	ND	0.050	0.00097	10/19/18 16:09	
Selenium	mg/L	ND	0.010	0.0014	10/19/18 16:09	

LABORATORY CONTROL SAMPLE: 69913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	101	80-120	
Barium	mg/L	.1	0.10	101	80-120	
Beryllium	mg/L	.1	0.099	99	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	.1	0.099	99	80-120	
Calcium	mg/L	1	0.97	97	80-120	
Cobalt	mg/L	.1	0.098	98	80-120	
Lithium	mg/L	.1	0.10	102	80-120	
Selenium	mg/L	.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 69914 69915

Parameter	Units	2610582001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result						
Arsenic	mg/L	ND	.1	0.10	0.11	104	107	75-125	3	20		
Barium	mg/L	0.048	.1	0.15	0.16	107	110	75-125	2	20		
Beryllium	mg/L	ND	.1	0.099	0.10	99	103	75-125	4	20		
Boron	mg/L	0.20	1	1.1	1.2	95	97	75-125	2	20		
Cadmium	mg/L	0.00014J	.1	0.10	0.10	103	104	75-125	1	20		
Calcium	mg/L	14.5J	1	16.2J	16.0J	163	144	75-125	1	20	M6	
Cobalt	mg/L	0.032	.1	0.14	0.14	105	109	75-125	2	20		
Lithium	mg/L	0.0052J	.1	0.10	0.11	96	103	75-125	6	20		
Selenium	mg/L	0.0019J	.1	0.10	0.11	103	109	75-125	6	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

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

QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 2610582

QC Batch: 15672

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Associated Lab Samples: 2610582001, 2610582002

METHOD BLANK: 69897

Matrix: Water

Associated Lab Samples: 2610582001, 2610582002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	10/19/18 21:38	
Fluoride	mg/L	ND	0.30	0.029	10/19/18 21:38	
Sulfate	mg/L	ND	1.0	0.017	10/19/18 21:38	

LABORATORY CONTROL SAMPLE: 69898

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.8	108	90-110	
Sulfate	mg/L	10	11.0	110	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 69899 69900

Parameter	Units	2610582001		69900		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Chloride	mg/L	12.1	10	10	21.3	21.4	92	93	90-110	0	15		
Fluoride	mg/L	ND	10	10	10.1	9.9	101	99	90-110	2	15		
Sulfate	mg/L	83.7	10	10	75.1	74.6	-86	-91	90-110	1	15 E		

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds

Pace Project No.: 2610582

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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

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.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 2610582

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610582001	YAMW-1	EPA 3005A	15677	EPA 6020B	15694
2610582002	PZ-35	EPA 3005A	15677	EPA 6020B	15694
2610582001	YAMW-1	SM 2540C	15623		
2610582002	PZ-35	SM 2540C	15623		
2610582001	YAMW-1	EPA 300.0	15672		
2610582002	PZ-35	EPA 300.0	15672		

REPORT OF LABORATORY ANALYSIS

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



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: 2610582

PM: BM Due Date: 10/24/18

CLIENT: GIPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Cooler Temperature 0.2

Biological Tissue is Frozen: Yes No

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 10/17/18 MR

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace 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	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix: <u>GW</u>				
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: _____

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

Project Manager Review: _____ Date: _____

November 12, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 2610583

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2018. 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,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Yates Ash Ponds
Pace Project No.: 2610583

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 2610583

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2610583001	YAMW-1	Water	10/16/18 11:00	10/17/18 16:15
2610583002	PZ-35	Water	10/16/18 12:35	10/17/18 16:15

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 2610583

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2610583001	YAMW-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610583002	PZ-35	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 2610583

Sample: YAMW-1 **Lab ID: 2610583001** Collected: 10/16/18 11:00 Received: 10/17/18 16:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.292 ± 0.146 (0.164) C:93% T:NA	pCi/L	11/06/18 09:20	13982-63-3	
Radium-228	EPA 9320	0.0922 ± 0.278 (0.628) C:80% T:84%	pCi/L	11/01/18 15:29	15262-20-1	
Total Radium	Total Radium Calculation	0.384 ± 0.424 (0.792)	pCi/L	11/09/18 13:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 2610583

Sample: PZ-35 **Lab ID: 2610583002** Collected: 10/16/18 12:35 Received: 10/17/18 16:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0184 ± 0.127 (0.318) C:98% T:NA	pCi/L	11/06/18 09:20	13982-63-3	
Radium-228	EPA 9320	0.345 ± 0.330 (0.674) C:80% T:79%	pCi/L	11/01/18 15:29	15262-20-1	
Total Radium	Total Radium Calculation	0.363 ± 0.457 (0.992)	pCi/L	11/09/18 13:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 2610583

QC Batch:	318192	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2610583001, 2610583002		

METHOD BLANK:	1552035	Matrix:	Water
Associated Lab Samples:	2610583001, 2610583002		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0766 ± 0.110 (0.238) C:97% T:NA	pCi/L	11/06/18 08:09	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 2610583

QC Batch: 317858

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2610583001, 2610583002

METHOD BLANK: 1550522

Matrix: Water

Associated Lab Samples: 2610583001, 2610583002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.177 ± 0.319 (0.697) C:77% T:91%	pCi/L	11/01/18 12:04	

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

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

QUALIFIERS

Project: Plant Yates Ash Ponds
Pace Project No.: 2610583

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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 2610583

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610583001	YAMW-1	EPA 9315	318192		
2610583002	PZ-35	EPA 9315	318192		
2610583001	YAMW-1	EPA 9320	317858		
2610583002	PZ-35	EPA 9320	317858		
2610583001	YAMW-1	Total Radium Calculation	319938		
2610583002	PZ-35	Total Radium Calculation	319938		

REPORT OF LABORATORY ANALYSIS

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



Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: 2610583
PM: BM Due Date: 11/14/18
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.2 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/17/18 MR

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace 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	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix:	<u>GW</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):	_____			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Product Name: Low-Flow System

Date: 2018-10-16 12:36:54

Project Information:

Operator Name Jordan Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Pond 3
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type peri pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 49 ft

Pump placement from TOC 44 ft

Well Information:

Well ID PZ-35
Well diameter 2 in
Well Total Depth 49.4 ft
Screen Length 10 ft
Depth to Water 13.11 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.3087077 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15.4 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	12:15:28	600.03	21.18	5.56	153.02	1.05	14.40	3.30	234.69
Last 5	12:20:28	900.02	20.86	5.58	156.62	0.33	14.40	2.99	228.88
Last 5	12:25:28	1200.02	20.87	5.62	158.10	0.40	14.40	3.00	225.08
Last 5	12:30:28	1500.02	21.37	5.61	153.37	0.46	14.40	3.12	227.22
Last 5	12:35:28	1800.02	21.01	5.60	153.52	0.39	14.40	3.18	225.07
Variance 0			0.02	0.04	1.49			0.01	-3.79
Variance 1			0.50	-0.01	-4.73			0.12	2.14
Variance 2			-0.36	-0.00	0.15			0.05	-2.15

Notes

Sunny, sample time:1235

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-16 11:02:03

Project Information:

Operator Name Jordan Berisford
Company Name Atlantic Coast Consulting
Project Name Ash Pond 3
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type peri pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 70 ft

Pump placement from TOC 65 ft

Well Information:

Well ID YAMW-1
Well diameter 2 in
Well Total Depth 70.52 ft
Screen Length 10 ft
Depth to Water 12.90 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4024396 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 22.8 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	10:40:01	900.02	21.10	6.03	275.78	2.47	14.70	0.45	-412.67
Last 5	10:45:01	1200.02	21.90	6.03	274.81	2.05	14.80	0.41	-410.39
Last 5	10:50:02	1500.09	22.20	6.03	271.13	1.83	14.80	0.38	-407.90
Last 5	10:55:02	1800.64	22.21	6.03	270.47	2.12	14.80	0.37	-404.88
Last 5	11:00:02	2100.62	22.26	6.03	269.26	1.97	14.80	0.36	-401.54
Variance 0			0.30	0.00	-3.68			-0.03	2.49
Variance 1			0.01	0.00	-0.67			-0.01	3.02
Variance 2			0.05	-0.00	-1.21			-0.00	3.34

Notes

Sunny, sample time-1100

Grab Samples

APPENDIX B

STATISTICAL ANALYSES

100% ND

Date: 12/17/2018 3:14 PM

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Arsenic (mg/L)

YGWC-23S, YGWC-24S

Cadmium (mg/L)

YGWC-24S

Cobalt (mg/L)

YGWC-23S, YGWC-24S

Fluoride (mg/L)

YGWC-24S

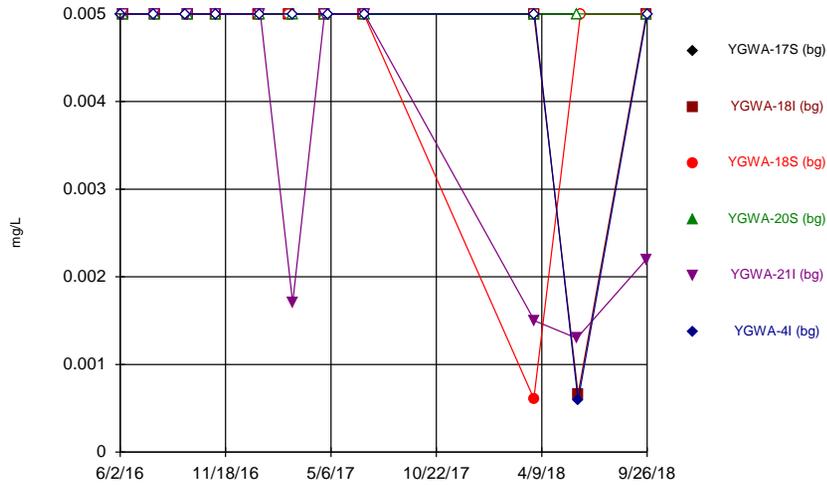
Lithium (mg/L)

YGWC-24S

Selenium (mg/L)

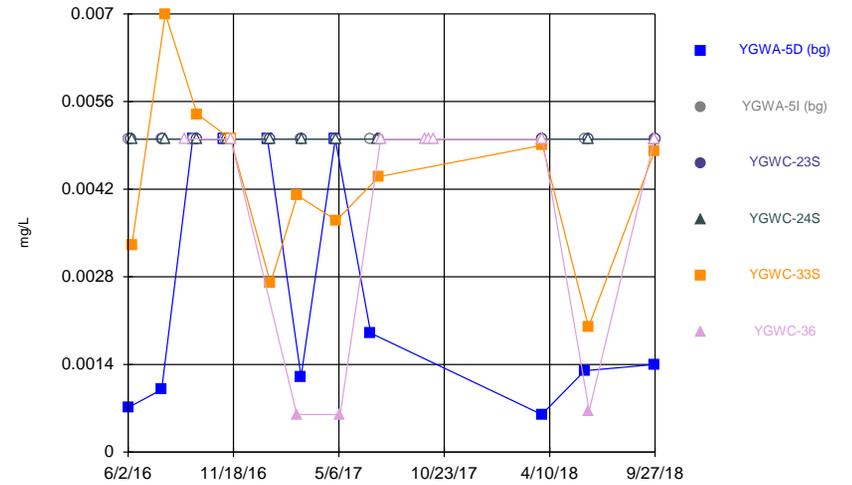
YGWC-24S

Time Series



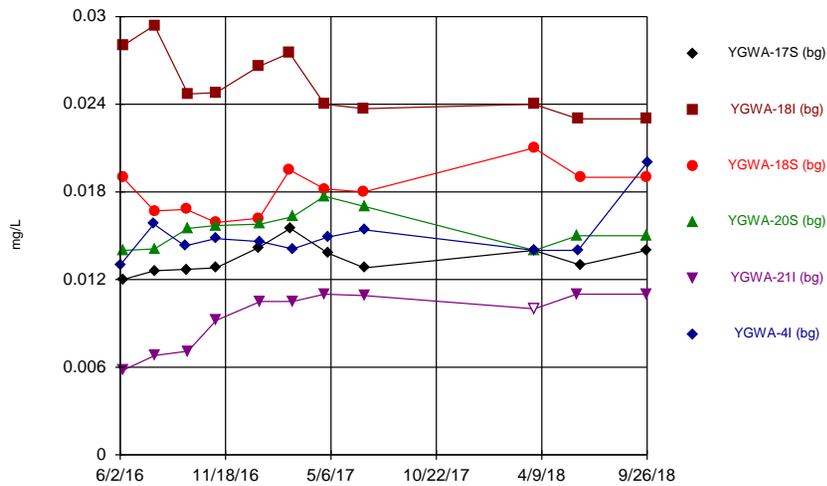
Constituent: Arsenic Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



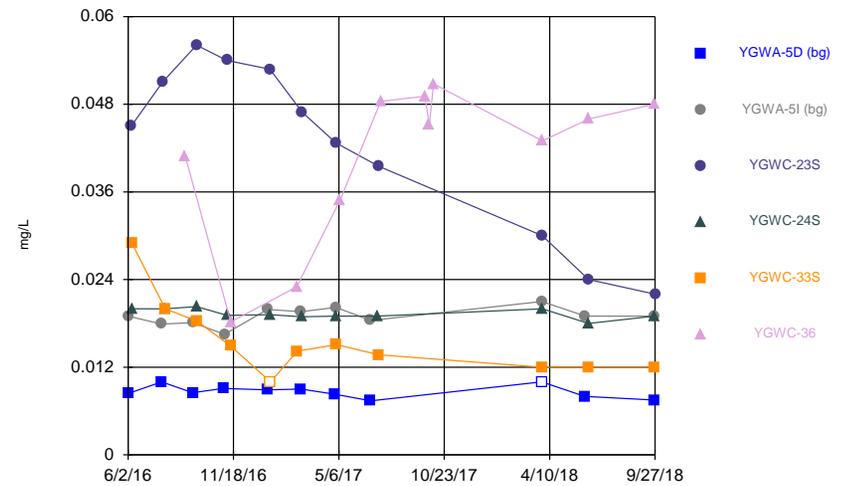
Constituent: Arsenic Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



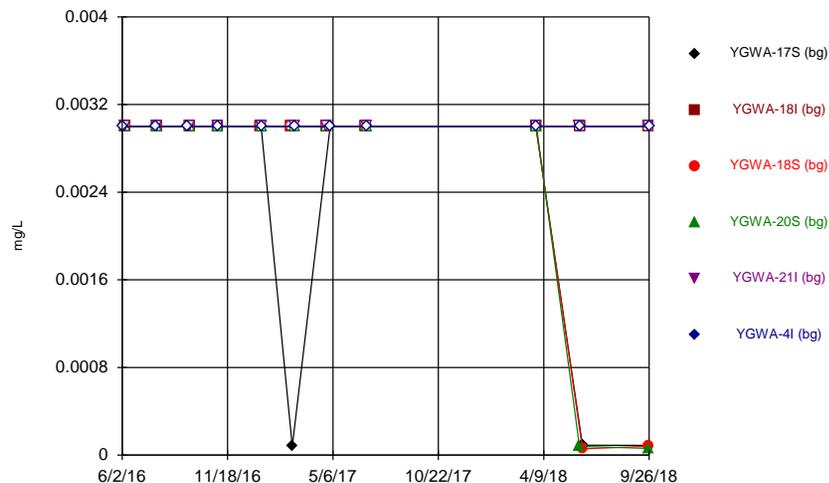
Constituent: Barium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



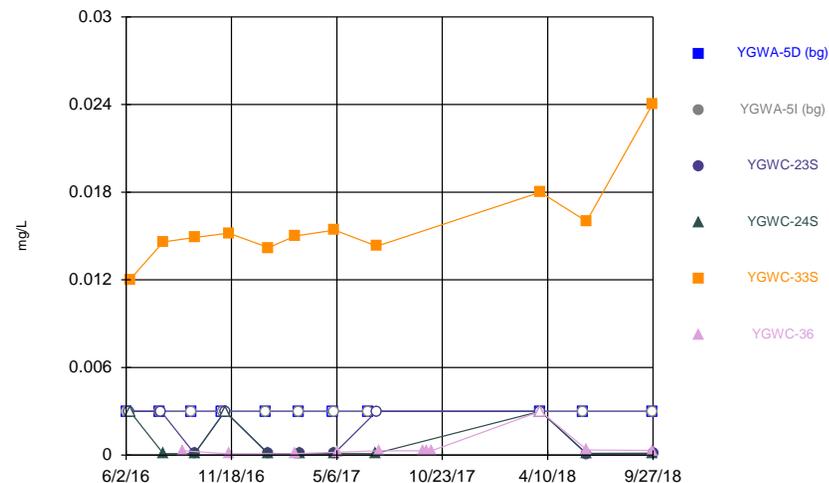
Constituent: Barium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



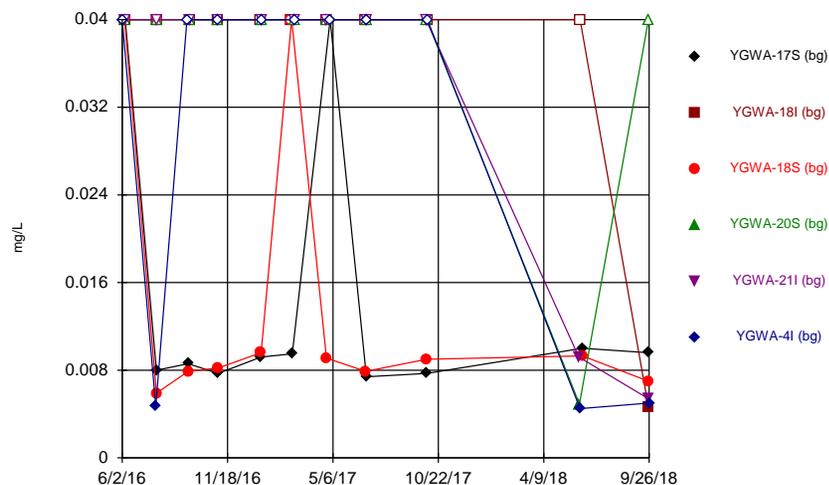
Constituent: Beryllium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



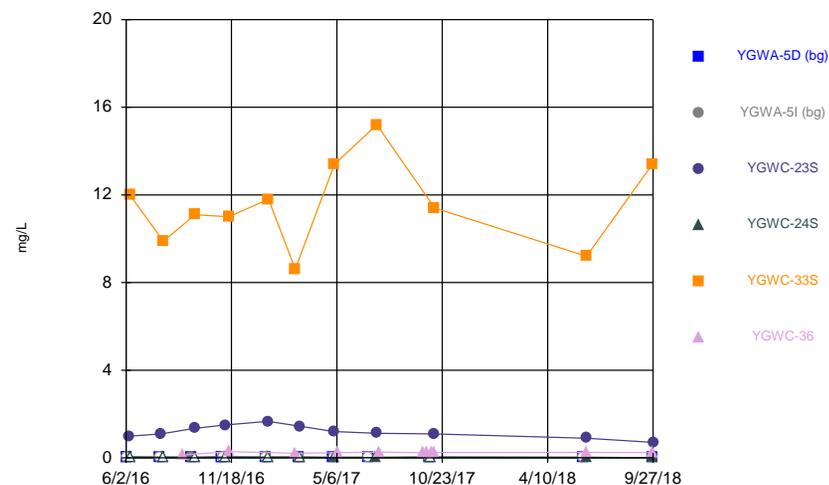
Constituent: Beryllium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



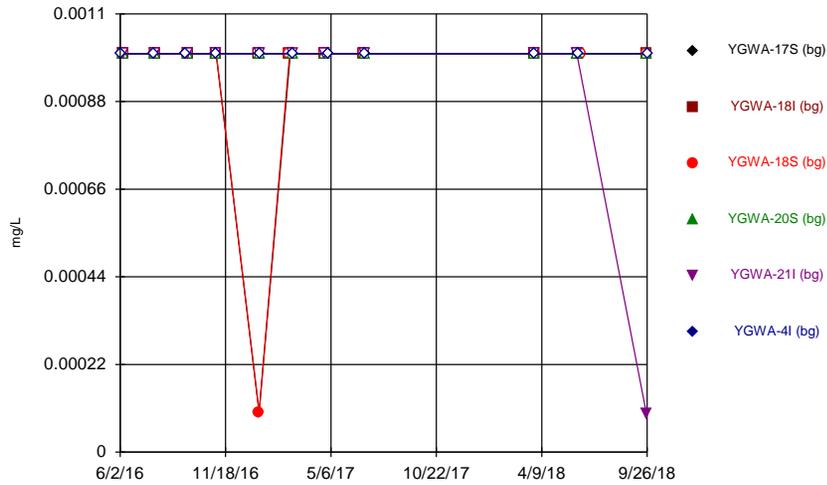
Constituent: Boron Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



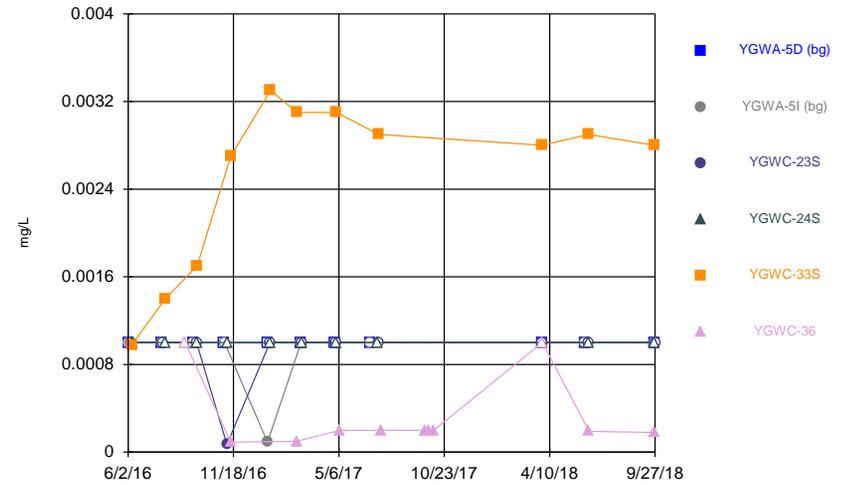
Constituent: Boron Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



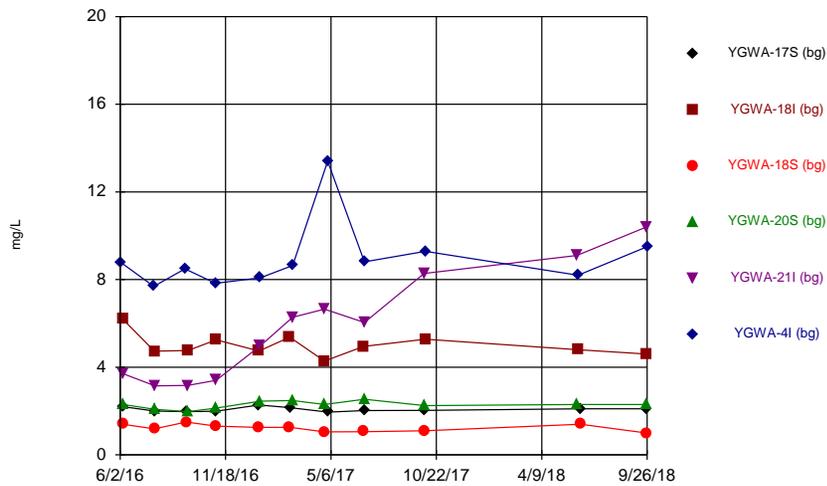
Constituent: Cadmium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



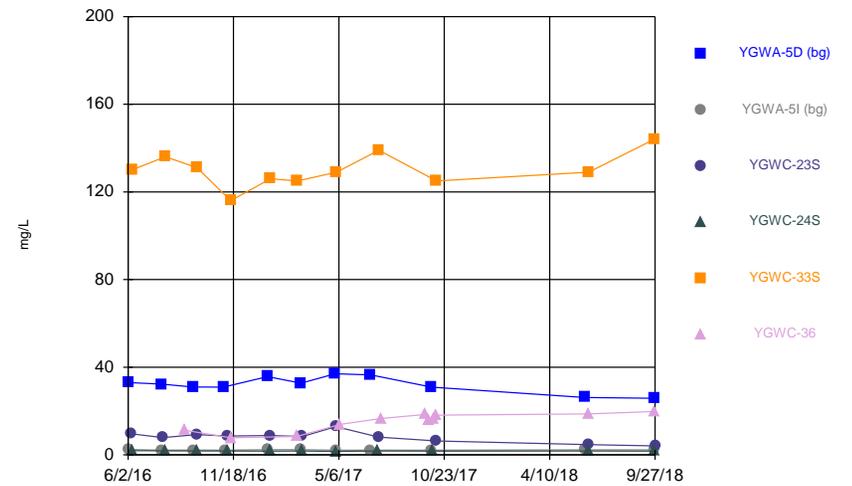
Constituent: Cadmium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



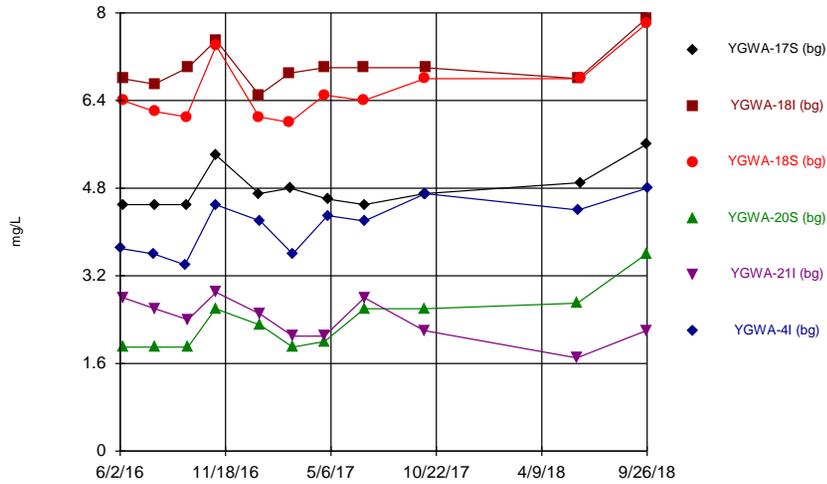
Constituent: Calcium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



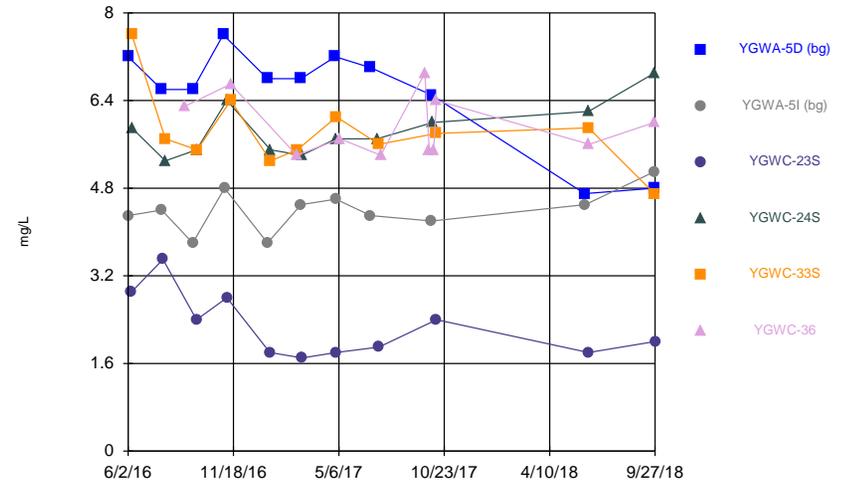
Constituent: Calcium Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



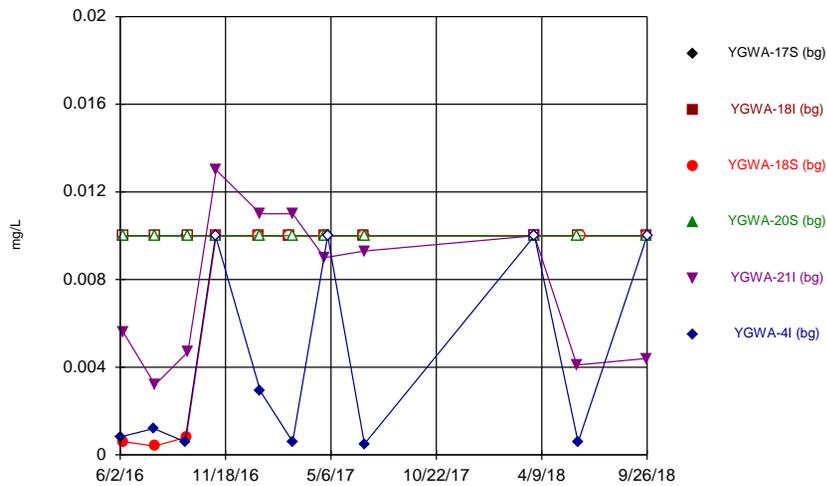
Constituent: Chloride Analysis Run 12/17/2018 3:05 PM View: Time Series
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



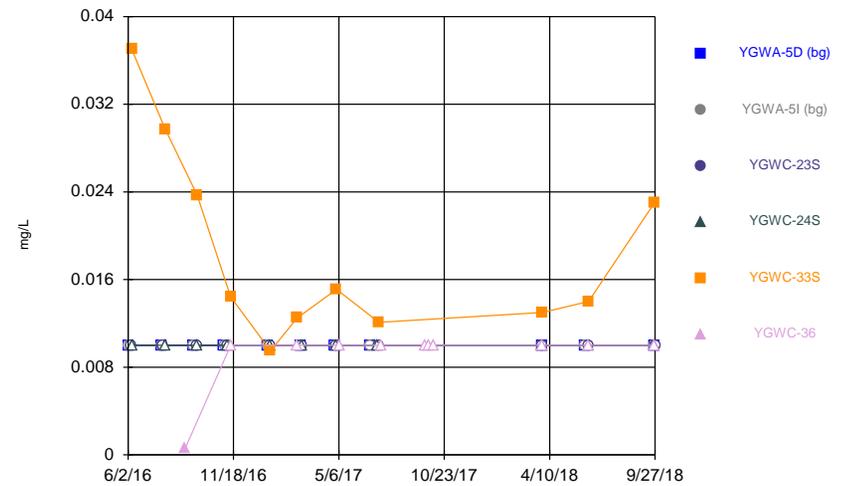
Constituent: Chloride Analysis Run 12/17/2018 3:05 PM View: Time Series
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



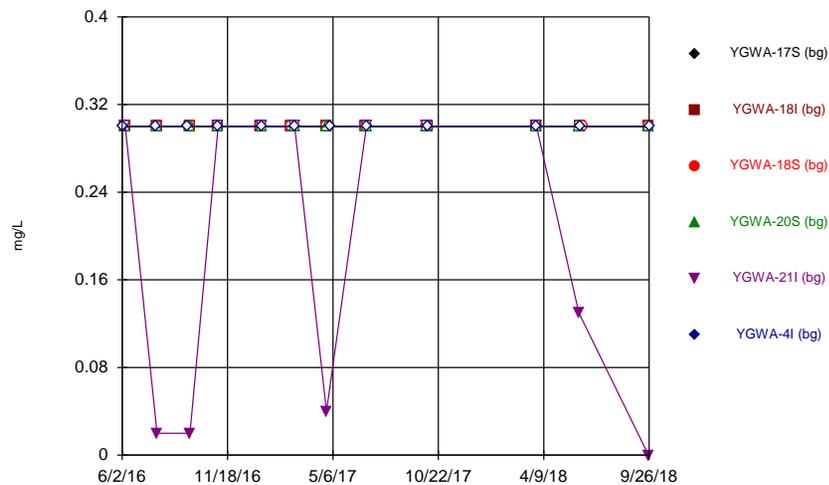
Constituent: Cobalt Analysis Run 12/17/2018 3:05 PM View: Time Series
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series

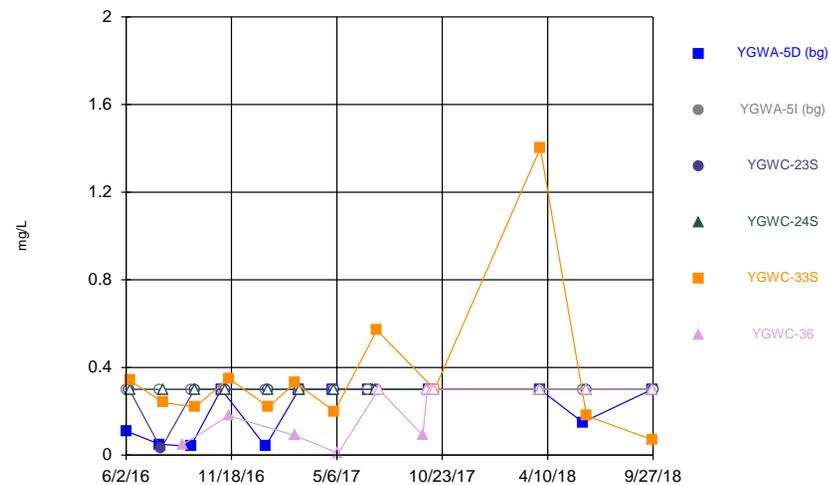


Constituent: Cobalt Analysis Run 12/17/2018 3:05 PM View: Time Series
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

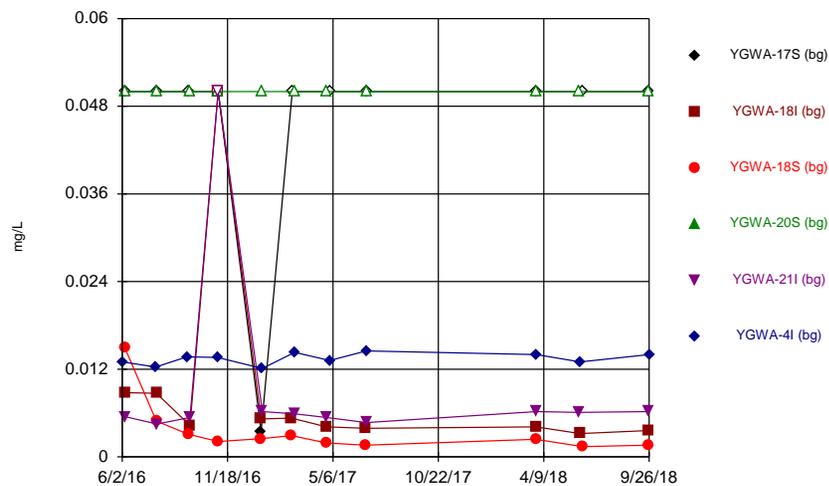
Time Series



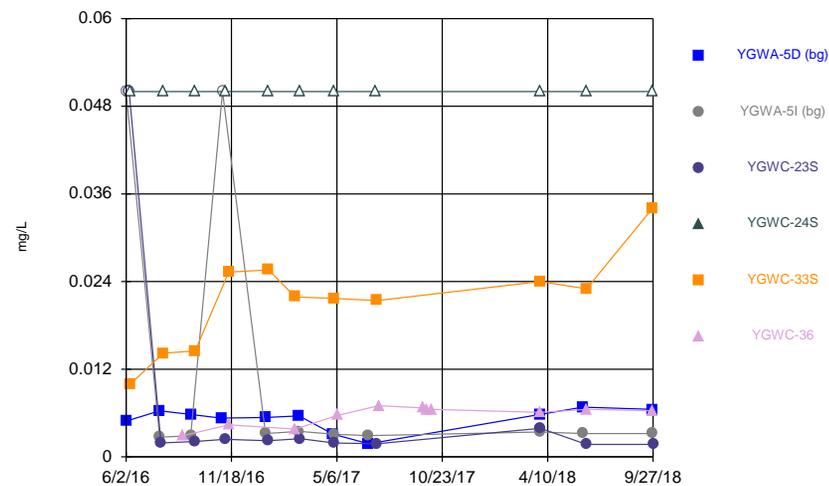
Time Series



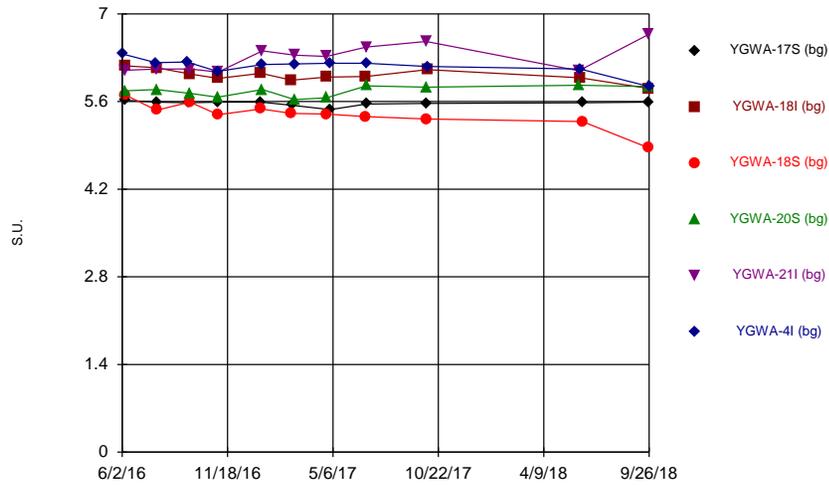
Time Series



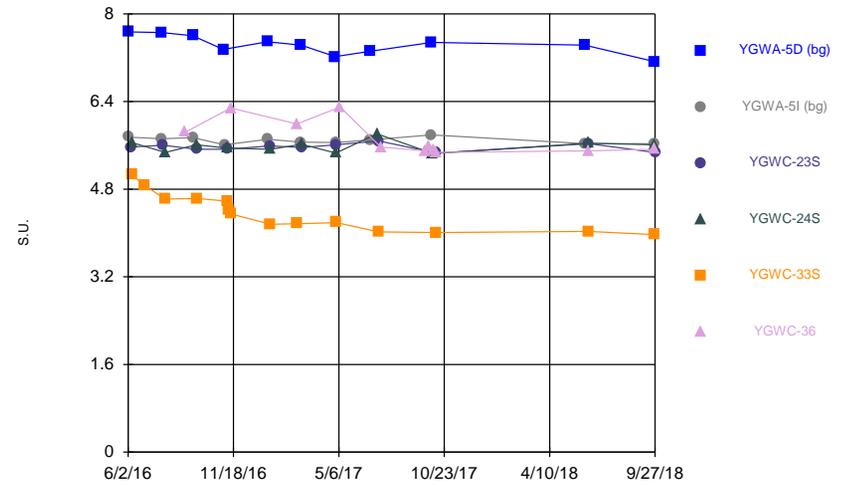
Time Series



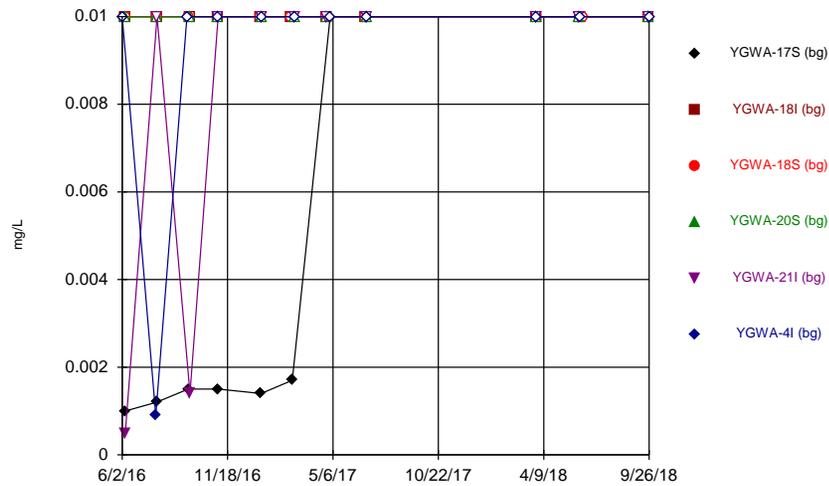
Time Series



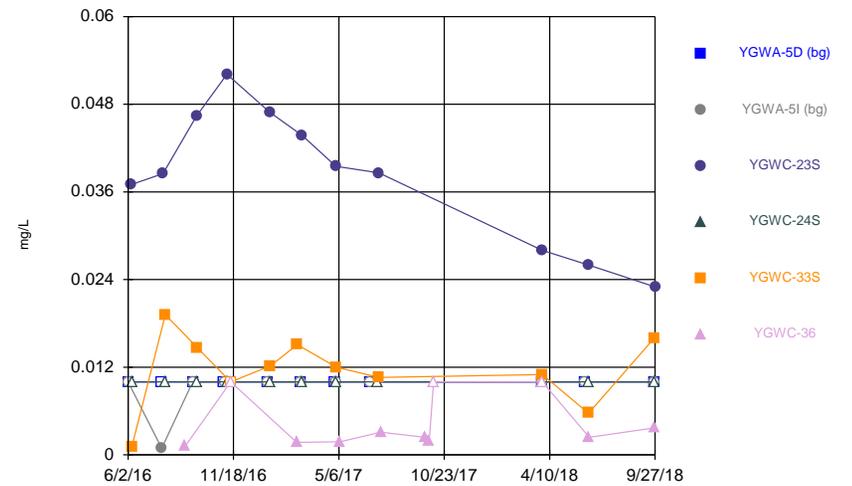
Time Series



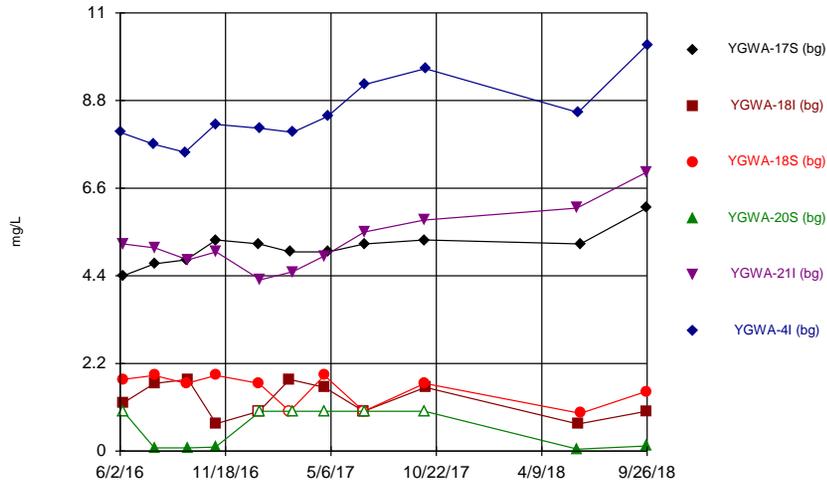
Time Series



Time Series

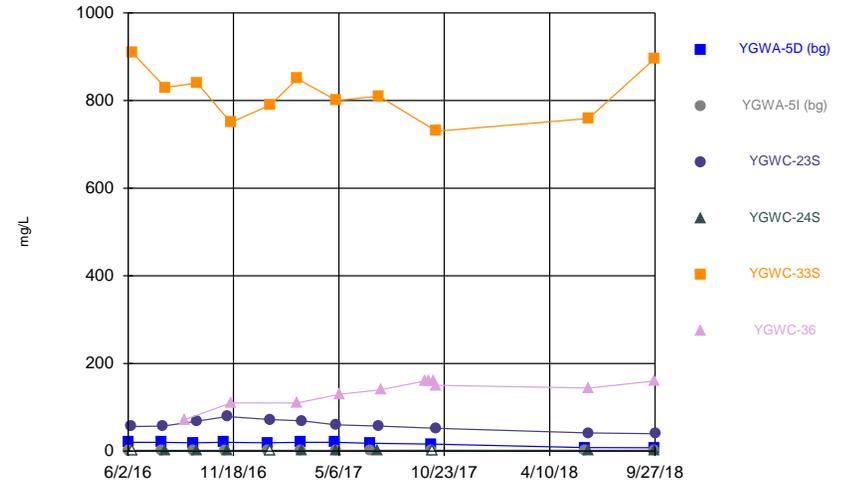


Time Series



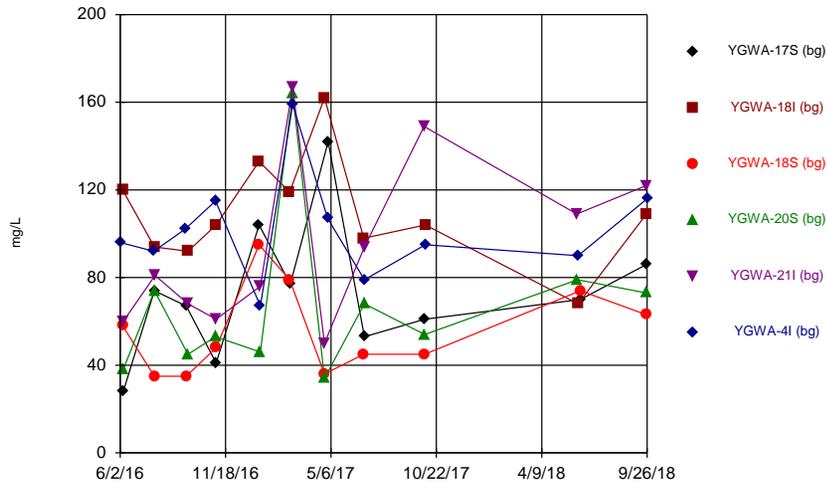
Constituent: Sulfate Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



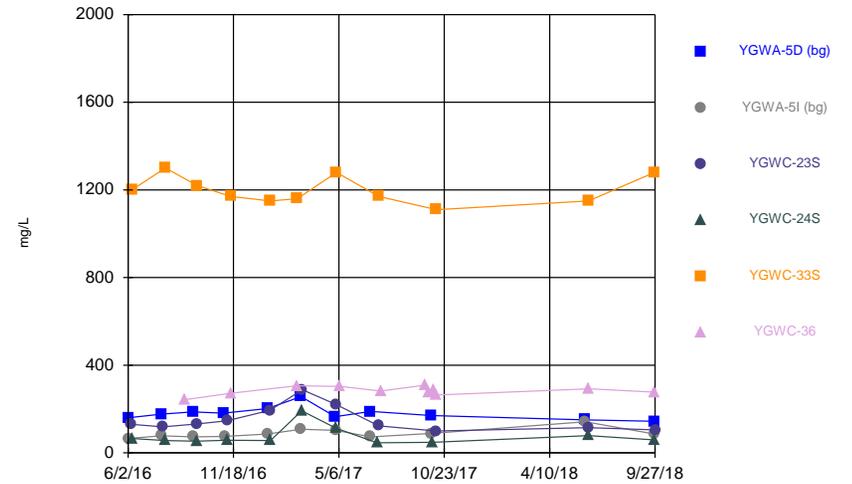
Constituent: Sulfate Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/17/2018 3:05 PM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Tolerance Limit

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B` Printed 1/23/2019, 4:06 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	n/a	0.0025	n/a	n/a	n/a	104	83.65	n/a	0.004822	NP Inter(NDs)
Barium (mg/L)	n/a	0.02725	n/a	n/a	n/a	104	1.923	No	0.05	Inter
Beryllium (mg/L)	n/a	0.0015	n/a	n/a	n/a	104	91.35	n/a	0.004822	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.00125	n/a	n/a	n/a	104	96.15	n/a	0.004822	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.013	n/a	n/a	n/a	104	80.77	n/a	0.004822	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	6.92	n/a	n/a	n/a	104	0	n/a	0.004822	NP Inter(normal...
Fluoride (mg/L)	n/a	0.15	n/a	n/a	n/a	112	89.29	n/a	0.003199	NP Inter(NDs)
Lithium (mg/L)	n/a	0.025	n/a	n/a	n/a	104	31.73	n/a	0.004822	NP Inter(normal...
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	104	81.73	n/a	0.004822	NP Inter(NDs)

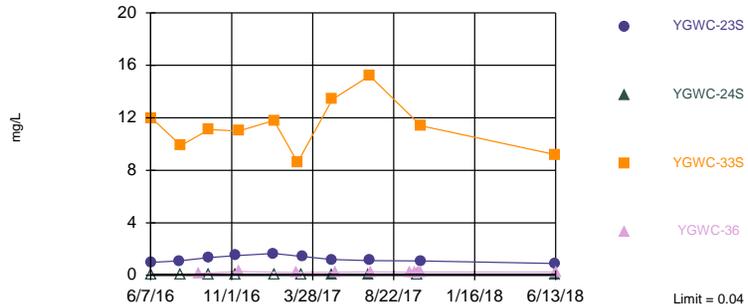
Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B Printed 12/17/2018, 3:12 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	YGWC-23S	0.04	n/a	6/12/2018	0.9	Yes	80	63.75	n/a	0.0002992	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-24S	0.04	n/a	6/12/2018	0.018	No	80	63.75	n/a	0.0002992	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-33S	0.04	n/a	6/12/2018	9.2	Yes	80	63.75	n/a	0.0002992	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-36	0.04	n/a	6/13/2018	0.25	Yes	80	63.75	n/a	0.0002992	NP Inter (NDs) 1 of 2
Calcium (mg/L)	YGWC-23S	37	n/a	6/12/2018	4.7	No	80	0	n/a	0.0002992	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-24S	37	n/a	6/12/2018	1.8	No	80	0	n/a	0.0002992	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	6/12/2018	129	Yes	80	0	n/a	0.0002992	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-36	37	n/a	6/13/2018	18.7	No	80	0	n/a	0.0002992	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-23S	0.3	n/a	6/12/2018	0.3ND	No	88	89.77	n/a	0.00025	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-24S	0.3	n/a	6/12/2018	0.3ND	No	88	89.77	n/a	0.00025	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-33S	0.3	n/a	6/12/2018	0.18	No	88	89.77	n/a	0.00025	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-36	0.3	n/a	6/13/2018	0.3ND	No	88	89.77	n/a	0.00025	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-23S	7.67	5.28	6/12/2018	5.63	No	80	0	n/a	0.0005984	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-24S	7.67	5.28	6/12/2018	5.64	No	80	0	n/a	0.0005984	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-33S	7.67	5.28	6/12/2018	4.03	Yes	80	0	n/a	0.0005984	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-36	7.67	5.28	6/13/2018	5.5	No	80	0	n/a	0.0005984	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-23S	20	n/a	6/12/2018	41.4	Yes	80	12.5	n/a	0.0002992	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-24S	20	n/a	6/12/2018	0.35	No	80	12.5	n/a	0.0002992	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-33S	20	n/a	6/12/2018	759	Yes	80	12.5	n/a	0.0002992	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-36	20	n/a	6/13/2018	144	Yes	80	12.5	n/a	0.0002992	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-23S	188.8	n/a	6/12/2018	115	No	80	0	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-24S	188.8	n/a	6/12/2018	79	No	80	0	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-33S	188.8	n/a	6/12/2018	1150	Yes	80	0	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-36	188.8	n/a	6/13/2018	292	Yes	80	0	sqrt(x)	0.001504	Param Inter 1 of 2

Exceeds Limit: YGWC-23S, YGWC-33S, YGWC-36

Prediction Limit
Interwell Non-parametric

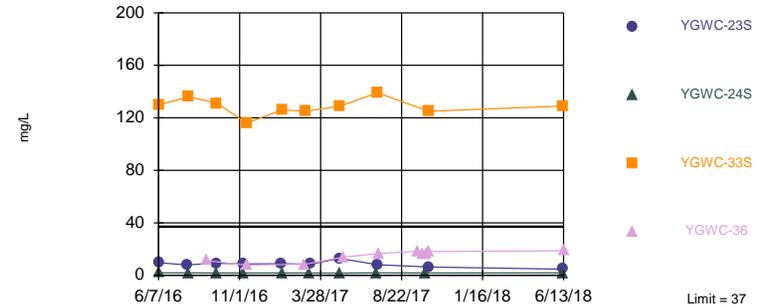


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 80 background values. 63.75% NDs. Annual per-constituent alpha = 0.002988. Individual comparison alpha = 0.0002992 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Boron Analysis Run 12/17/2018 3:10 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limit: YGWC-33S

Prediction Limit
Interwell Non-parametric

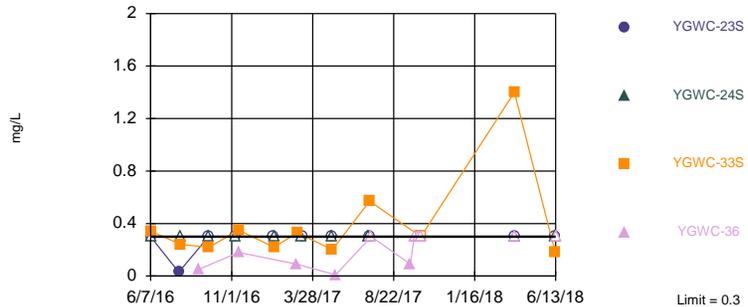


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. Annual per-constituent alpha = 0.002988. Individual comparison alpha = 0.0002992 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Calcium Analysis Run 12/17/2018 3:10 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Within Limit

Prediction Limit
Interwell Non-parametric

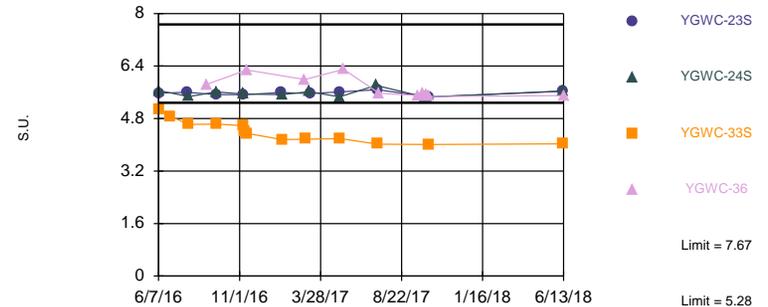


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 88 background values. 89.77% NDs. Annual per-constituent alpha = 0.002497. Individual comparison alpha = 0.00025 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Fluoride Analysis Run 12/17/2018 3:10 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limits: YGWC-33S

Prediction Limit
Interwell Non-parametric

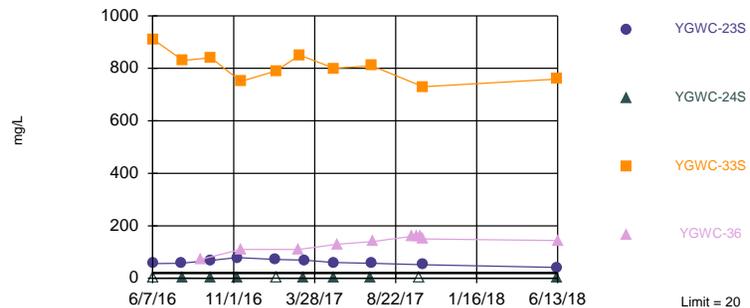


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 80 background values. Annual per-constituent alpha = 0.005976. Individual comparison alpha = 0.0005984 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: pH Analysis Run 12/17/2018 3:10 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limit: YGWC-23S, YGWC-33S,
 YGWC-36

Prediction Limit
 Interwell Non-parametric

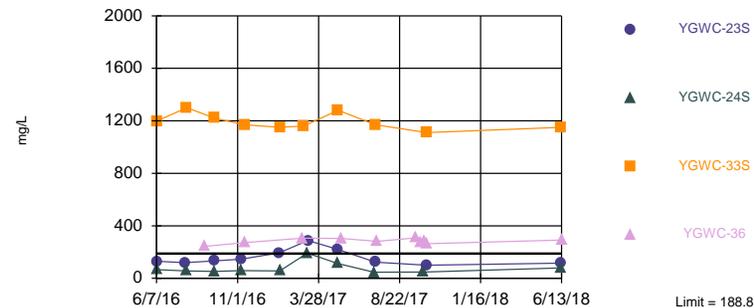


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 12.5% NDs. Annual per-constituent alpha = 0.002988. Individual comparison alpha = 0.0002992 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Sulfate Analysis Run 12/17/2018 3:10 PM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limit: YGWC-33S, YGWC-36

Prediction Limit
 Interwell Parametric



Background Data Summary (based on square root transformation): Mean=9.511, Std. Dev.=2.327, n=80. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9725, critical = 0.957. Kappa = 1.818 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 4 points to limit. Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 3:10 PM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-17S (bg)
6/2/2016	<0.04	<0.04	<0.04						
6/6/2016				<0.04	<0.04				
6/7/2016						<0.04	<0.04	0.99	<0.04 (*)
6/8/2016									
7/26/2016	0.0047 (J)	<0.04	0.0052 (J)						
7/27/2016				<0.04	0.0059 (J)		<0.04		0.008 (J)
7/28/2016						<0.04 (*)		1.09	
8/1/2016									
9/2/2016									
9/14/2016	<0.04	0.01 (J)	0.0071 (J)						
9/16/2016					0.0079 (J)				0.0086 (J)
9/19/2016				<0.04		<0.04	<0.04		
9/20/2016								1.35	
9/21/2016									
11/2/2016	<0.04		<0.04				<0.04		
11/3/2016				<0.04	0.0082 (J)	<0.04			0.0077 (J)
11/4/2016		<0.04							
11/8/2016								1.5	
11/14/2016									
1/11/2017				<0.04	0.0096 (J)				0.0092 (J)
1/12/2017		<0.04	0.0076 (J)						
1/13/2017	<0.04					<0.04	<0.04		
1/16/2017								1.67	
1/17/2017									
2/28/2017									
3/1/2017				<0.04	<0.04 (*)				
3/2/2017									0.0095 (J)
3/6/2017	<0.04					<0.04	<0.04		
3/7/2017		<0.04	0.0089 (J)						
3/8/2017									
3/9/2017								1.44	
4/26/2017				<0.04	0.0091 (J)	<0.04	<0.04		
5/1/2017	<0.04		0.0061 (J)						
5/2/2017		<0.04						1.2	<0.04
5/3/2017									
5/9/2017									
6/27/2017		<0.04	0.0079 (J)						
6/28/2017				<0.04	0.0079 (J)				
6/29/2017	<0.04					<0.04	<0.04		0.0074 (J)
7/7/2017									
7/10/2017								1.12	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		<0.04	0.0094 (J)			<0.04			
10/4/2017					0.009 (J)		<0.04		0.0077 (J)
10/5/2017	<0.04			<0.04					
10/6/2017									
10/11/2017								1.09	
6/5/2018						0.0092 (J)			
6/6/2018			0.0098 (J)				0.0049 (J)		
6/7/2018	0.0045 (J)	<0.04		<0.04					

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	<0.04	12	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	<0.04 (*)	9.89	
9/2/2016			0.133
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	<0.04 (*)		
9/21/2016		11.1	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	<0.04 (*)		
11/14/2016		11	0.287
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	<0.04 (*)	11.8	
2/28/2017			0.215
3/1/2017		8.61	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	<0.04		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	0.0099 (J)		
5/3/2017		13.4	
5/9/2017			0.233
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	0.0076 (J)		
7/10/2017		15.2	
7/13/2017			0.262
9/22/2017			0.238
9/29/2017			0.235
10/3/2017			
10/4/2017			
10/5/2017	<0.04		
10/6/2017			0.256
10/11/2017		11.4	0.245
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/11/2018			
6/12/2018	0.018 (J)	9.2	
6/13/2018			0.25

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-17S (bg)
6/2/2016	8.8	2.4	33						
6/6/2016				6.2	1.4				
6/7/2016						3.7	2.3	9.6	2.2
6/8/2016									
7/26/2016	7.69	2.12	32.3						
7/27/2016				4.73	1.19		2.08		2
7/28/2016						3.15		7.87	
8/1/2016									
9/2/2016									
9/14/2016	8.49	2.18	31						
9/16/2016					1.5				1.97
9/19/2016				4.76		3.17	1.97		
9/20/2016								9.28	
9/21/2016									
11/2/2016	7.83		30.9				2.13		
11/3/2016				5.25	1.31	3.4			1.99
11/4/2016		2.17 (J)							
11/8/2016								8.6	
11/14/2016									
1/11/2017				4.74	1.25				2.28
1/12/2017		2.37	35.7						
1/13/2017	8.08					4.98	2.45		
1/16/2017								8.85	
1/17/2017									
2/28/2017									
3/1/2017				5.37	1.26				
3/2/2017									2.15
3/6/2017	8.64					6.28	2.48		
3/7/2017		2.34	32.7						
3/8/2017									
3/9/2017								8.4	
4/26/2017				4.28	1.05	6.65	2.3		
5/1/2017	13.4		37						
5/2/2017		2.17						12.9	1.95
5/3/2017									
5/9/2017									
6/27/2017		2.13	36.5						
6/28/2017				4.95	1.06				
6/29/2017	8.81					6.04	2.54		2.02
7/7/2017									
7/10/2017								8.09	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		2.15	30.9			8.28			
10/4/2017					1.1		2.25		2.03
10/5/2017	9.29			5.28					
10/6/2017									
10/11/2017								6.36	
6/5/2018						9.1			
6/6/2018			26.2				2.3		
6/7/2018	8.2	2.3		4.8					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	1.9	130	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	1.83	136	
9/2/2016			11.2
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	1.78		
9/21/2016		131	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	1.77		
11/14/2016		116	7.79
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	1.7	126	
2/28/2017			8.37
3/1/2017		125	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	1.77		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	1.57		
5/3/2017		129	
5/9/2017			13.9
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	1.8		
7/10/2017		139	
7/13/2017			16.6
9/22/2017			18.4
9/29/2017			16.1
10/3/2017			
10/4/2017			
10/5/2017	1.7		
10/6/2017			16.6
10/11/2017		125	18.1
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/11/2018			
6/12/2018	1.8	129	
6/13/2018			18.7 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWC-23S	YGWA-21I (bg)	YGWA-20S (bg)	YGWA-17S (bg)
6/2/2016	<0.3	<0.3	0.11 (J)						
6/6/2016				<0.3	<0.3				
6/7/2016						<0.3	<0.3	<0.3	<0.3
6/8/2016									
7/26/2016	<0.3	<0.3	0.05 (J)						
7/27/2016				<0.3	<0.3			<0.3	<0.3
7/28/2016						0.03 (J)	0.02 (J)		
8/1/2016									
9/2/2016									
9/14/2016	<0.3	<0.3	0.04 (J)						
9/16/2016					<0.3				<0.3
9/19/2016				<0.3			0.02 (J)	<0.3	
9/20/2016						<0.3			
9/21/2016									
11/2/2016	<0.3 (*)		<0.3 (*)					<0.3	
11/3/2016				<0.3	<0.3		<0.3 (*)		<0.3
11/4/2016		<0.3							
11/8/2016						<0.3			
11/14/2016									
1/11/2017				<0.3	<0.3				<0.3
1/12/2017		<0.3	0.04 (J)						
1/13/2017	<0.3						<0.3	<0.3	
1/16/2017						<0.3			
1/17/2017									
2/28/2017									
3/1/2017				<0.3 (*)	<0.3 (*)				
3/2/2017									<0.3 (*)
3/6/2017	<0.3 (*)						<0.3 (*)	<0.3 (*)	
3/7/2017		<0.3 (*)	<0.3 (*)						
3/8/2017									
3/9/2017						<0.3 (*)			
4/26/2017				<0.3	<0.3		0.04 (J)	<0.3	
5/1/2017	<0.3		<0.3 (*)						
5/2/2017		<0.3				<0.3			<0.3
5/3/2017									
5/9/2017									
6/27/2017		<0.3	<0.3 (*)						
6/28/2017				<0.3	<0.3				
6/29/2017	<0.3 (*)						<0.3 (*)	<0.3 (*)	<0.3 (*)
7/7/2017									
7/10/2017						<0.3 (*)			
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		<0.3	<0.3 (*)				<0.3 (*)		
10/4/2017					<0.3			<0.3	<0.3
10/5/2017	<0.3			<0.3					
10/6/2017									
10/11/2017						<0.3			
3/28/2018				<0.3	<0.3				<0.3
3/29/2018	<0.3	<0.3	<0.3				<0.3	<0.3	
3/30/2018						<0.3			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	0.34	<0.3	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	0.24 (J)	<0.3	
9/2/2016			0.05 (J)
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		<0.3	
9/21/2016	0.22 (J)		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016		<0.3 (*)	
11/14/2016	0.35		0.18 (J)
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	0.22 (J)	<0.3	
2/28/2017			0.09 (J)
3/1/2017	0.33		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		<0.3 (*)	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		<0.3	
5/3/2017	0.2 (J)		
5/9/2017			0.009 (J)
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		<0.3	
7/10/2017	0.57		
7/13/2017			<0.3
9/22/2017			0.09 (J)
9/29/2017			<0.3
10/3/2017			
10/4/2017			
10/5/2017		<0.3	
10/6/2017			<0.3
10/11/2017	<0.3 (*)		<0.3 (*)
3/28/2018			
3/29/2018			
3/30/2018	1.4	<0.3	<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/5/2018			
6/6/2018			
6/7/2018			
6/11/2018			
6/12/2018	0.18 (J)	<0.3	
6/13/2018			<0.3

Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 3:12 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWA-17S (bg)	YGWC-23S
6/2/2016	5.75	7.67	6.36						
6/6/2016				5.71	6.17				
6/7/2016						6.1	5.77	5.62	5.57
6/8/2016									
6/28/2016									
7/26/2016	5.72	7.66	6.22						
7/27/2016				5.46	6.14		5.79	5.59	
7/28/2016						6.12			5.6
8/1/2016									
9/2/2016									
9/14/2016	5.74	7.6	6.23						
9/16/2016								5.58	
9/19/2016				5.59	6.04	6.12	5.73		
9/20/2016									5.53
9/21/2016									
11/2/2016		7.35	6.08				5.67		
11/3/2016				5.39	5.97	6.07		5.59	
11/4/2016	5.61								
11/8/2016									5.53
11/10/2016									
11/14/2016									
1/11/2017				5.48	6.05			5.59	
1/12/2017	5.71	7.49							
1/13/2017			6.19			6.41	5.79		
1/16/2017									5.59
1/17/2017									
2/28/2017									
3/1/2017				5.41	5.94				
3/2/2017								5.54	
3/6/2017			6.2			6.34	5.63		
3/7/2017	5.66	7.43							
3/8/2017									
3/9/2017									5.56
4/26/2017				5.4	5.99	6.32	5.66		
5/1/2017		7.22	6.21						
5/2/2017	5.65							5.47	5.61
5/3/2017									
5/9/2017									
6/27/2017	5.7	7.32							
6/28/2017				5.36	6				
6/29/2017			6.21			6.47	5.85	5.56	
7/7/2017									
7/10/2017									5.68
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017	5.79	7.48				6.56			
10/4/2017				5.32			5.83	5.57	
10/5/2017			6.16		6.11				
10/6/2017									
10/11/2017									5.46
6/5/2018						6.09			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	5.07	5.65	
6/28/2016	4.87		
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	4.62	5.47	
9/2/2016			5.84
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		5.61	
9/21/2016	4.63		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	4.58	5.55	
11/10/2016	4.42		
11/14/2016	4.35		6.28
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	4.16	5.53	
2/28/2017			5.99
3/1/2017	4.17		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		5.62	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		5.46	
5/3/2017	4.19		
5/9/2017			6.3
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		5.81	
7/10/2017	4.02		
7/13/2017			5.57
9/22/2017			5.5
9/29/2017			5.58
10/3/2017			
10/4/2017			
10/5/2017		5.45	
10/6/2017			5.51
10/11/2017	4.01		5.47
6/5/2018			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/6/2018			
6/7/2018			
6/11/2018			
6/12/2018	4.03	5.64	
6/13/2018			5.5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-17S (bg)
6/2/2016	8	1.9	20						
6/6/2016				1.2	1.8				
6/7/2016						5.2	<1	56	4.4
6/8/2016									
7/26/2016	7.7	1.8	20						
7/27/2016				1.7	1.9		0.08 (J)		4.7
7/28/2016						5.1		57	
8/1/2016									
9/2/2016									
9/14/2016	7.5	1.8	19						
9/16/2016					1.7				4.8
9/19/2016				1.8		4.8	0.08 (J)		
9/20/2016								68	
9/21/2016									
11/2/2016	8.2		20				0.1 (J)		
11/3/2016				0.69 (J)	1.9	5			5.3
11/4/2016		2							
11/8/2016								79	
11/14/2016									
1/11/2017				<1 (*)	1.7				5.2
1/12/2017		1.9	19						
1/13/2017	8.1					4.3	<1 (*)		
1/16/2017								72	
1/17/2017									
2/28/2017									
3/1/2017				1.8	<1 (*)				
3/2/2017									5
3/6/2017	8					4.5	<1		
3/7/2017		2.1	20						
3/8/2017									
3/9/2017								69	
4/26/2017				1.6	1.9	4.9	<1		
5/1/2017	8.4		20						
5/2/2017		2						60	5
5/3/2017									
5/9/2017									
6/27/2017		2.1	18						
6/28/2017				<1 (*)	<1 (*)				
6/29/2017	9.2					5.5	<1 (*)		5.2
7/7/2017									
7/10/2017								57	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		2.3	16			5.8			
10/4/2017					1.7		<1 (*)		5.3
10/5/2017	9.6			1.6					
10/6/2017									
10/11/2017								52	
6/5/2018						6.1			
6/6/2018			8.3				0.049 (J)		
6/7/2018	8.5	2		0.68 (J)					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	<1	910	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	1.1	830	
9/2/2016			72
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	0.38 (J)		
9/21/2016		840	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	0.39 (J)		
11/14/2016		750	110
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	<1 (*)	790	
2/28/2017			110
3/1/2017		850	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	0.29 (J)		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	0.29 (J)		
5/3/2017		800	
5/9/2017			130
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	0.37 (J)		
7/10/2017		810	
7/13/2017			140
9/22/2017			160
9/29/2017			160
10/3/2017			
10/4/2017			
10/5/2017	<1 (*)		
10/6/2017			160
10/11/2017		730	150
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/11/2018			
6/12/2018	0.35 (J)	759	
6/13/2018			144

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-17S (bg)
6/2/2016	96	66	160						
6/6/2016				120	58				
6/7/2016						60	38	130	28
6/8/2016									
7/26/2016	92	78	177						
7/27/2016				94	35		74		74
7/28/2016						81		119	
8/1/2016									
9/2/2016									
9/14/2016	102	73	187						
9/16/2016					35				67
9/19/2016				92		68	45		
9/20/2016								132	
9/21/2016									
11/2/2016	115		181				53		
11/3/2016				104	48	61			41
11/4/2016		75							
11/8/2016								146	
11/14/2016									
1/11/2017				133	95				104
1/12/2017		86	202						
1/13/2017	67					76	46		
1/16/2017								194	
1/17/2017									
2/28/2017									
3/1/2017				119	79				
3/2/2017									77
3/6/2017	159					167	164		
3/7/2017		108	257						
3/8/2017									
3/9/2017								288	
4/26/2017				162	36	50	34		
5/1/2017	107		165						
5/2/2017		103						221	142
5/3/2017									
5/9/2017									
6/27/2017		73	189						
6/28/2017				98	45				
6/29/2017	79					94	68		53
7/7/2017									
7/10/2017								123	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		89	170			149			
10/4/2017					45		54		61
10/5/2017	95			104					
10/6/2017									
10/11/2017								100	
6/5/2018						109			
6/6/2018			151				79		
6/7/2018	90	142		68					

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	66	1200	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	56	1300	
9/2/2016			243
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	53		
9/21/2016		1220	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	58		
11/14/2016		1170	272
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	56	1150	
2/28/2017			306
3/1/2017		1160	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	192		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	113		
5/3/2017		1280	
5/9/2017			303
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	46		
7/10/2017		1170	
7/13/2017			282
9/22/2017			309
9/29/2017			273
10/3/2017			
10/4/2017			
10/5/2017	48		
10/6/2017			287
10/11/2017		1110	264
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 3:12 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-33S	YGWC-36
6/11/2018			
6/12/2018	79	1150	
6/13/2018			292

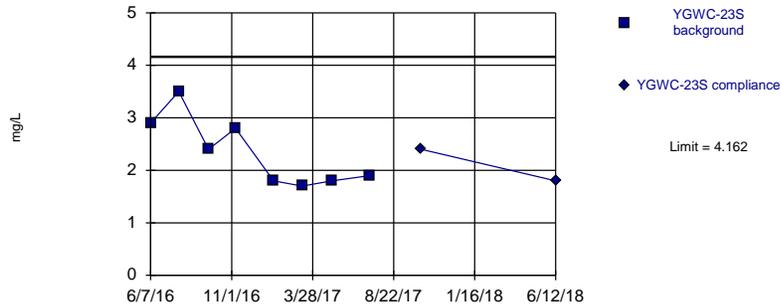
Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B` Printed 1/23/2019, 3:58 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Chloride (mg/L)	YGWC-23S	4.162	n/a	6/12/2018	1.8	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	YGWC-24S	6.633	n/a	6/12/2018	6.2	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	YGWC-33S	8.023	n/a	6/12/2018	5.9	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	YGWC-36	7.918	n/a	6/13/2018	5.6	No	7	0	No	0.001504	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

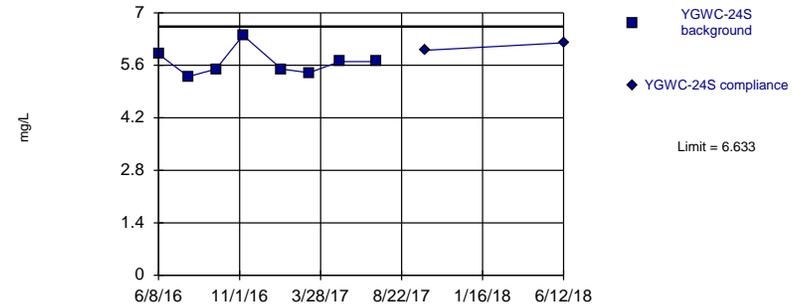


Background Data Summary: Mean=2.35, Std. Dev.=0.6612, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8787, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:57 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Within Limit

Prediction Limit
Intrawell Parametric

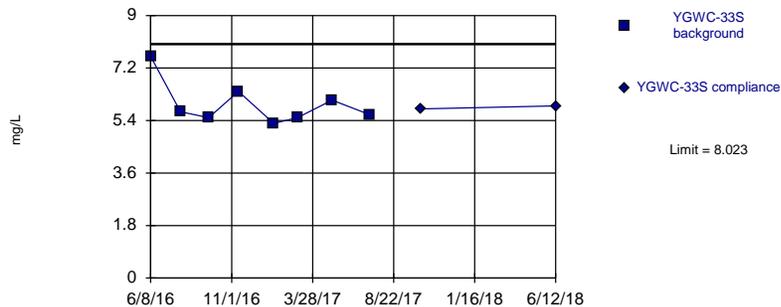


Background Data Summary: Mean=5.675, Std. Dev.=0.3495, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8853, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:57 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Within Limit

Prediction Limit
Intrawell Parametric

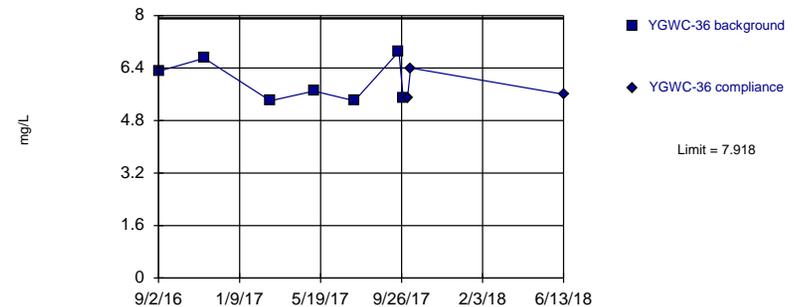


Background Data Summary: Mean=5.963, Std. Dev.=0.752, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8066, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:57 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=5.986, Std. Dev.=0.6388, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8481, critical = 0.73. Kappa = 3.024 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:57 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 3:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-23S
6/7/2016	2.9	
7/28/2016	3.5	
9/20/2016	2.4	
11/8/2016	2.8	
1/16/2017	1.8	
3/9/2017	1.7	
5/2/2017	1.8	
7/10/2017	1.9	
10/11/2017		2.4
6/12/2018		1.8

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 3:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-24S
6/8/2016	5.9	
8/1/2016	5.3	
9/20/2016	5.5	
11/8/2016	6.4	
1/17/2017	5.5	
3/8/2017	5.4	
5/2/2017	5.7	
7/7/2017	5.7	
10/5/2017		6
6/12/2018		6.2

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 3:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-33S
6/8/2016	7.6	
8/1/2016	5.7	
9/21/2016	5.5	
11/14/2016	6.4	
1/17/2017	5.3	
3/1/2017	5.5	
5/3/2017	6.1	
7/10/2017	5.6	
10/11/2017		5.8
6/12/2018		5.9

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 3:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-36	YGWC-36
9/2/2016	6.3	
11/14/2016	6.7	
2/28/2017	5.4	
5/9/2017	5.7	
7/13/2017	5.4	
9/22/2017	6.9	
9/29/2017	5.5	
10/6/2017		5.5
10/11/2017		6.4
6/13/2018		5.6

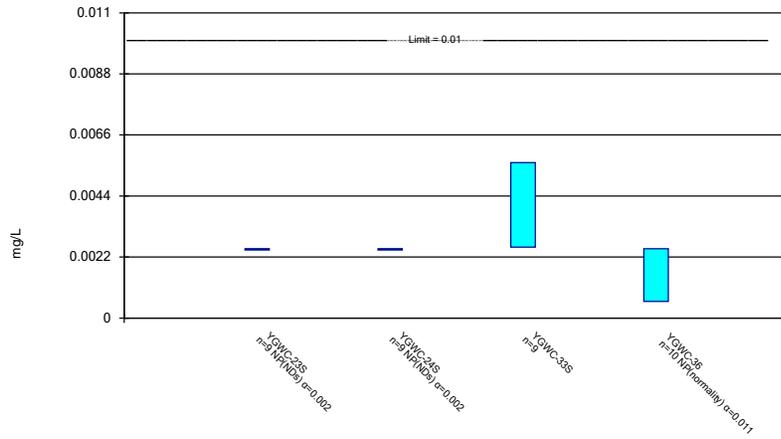
Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B` Printed 1/11/2019, 2:48 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	YGWC-23S	0.0025	0.0025	0.01	No	9	0.0025	0	100	No	0.002	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.0025	0.0025	0.01	No	9	0.0025	0	100	No	0.002	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.005601	0.002554	0.01	No	9	0.004078	0.001578	11.11	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.0025	0.0006	0.01	No	10	0.001936	0.0009083	70	No	0.011	NP (normality)
Barium (mg/L)	YGWC-23S	0.05492	0.03333	2	No	9	0.04412	0.01118	0	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01997	0.01859	2	No	9	0.01928	0.000712	0	No	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01778	0.01048	2	No	9	0.01413	0.003778	11.11	No	0.01	Param.
Barium (mg/L)	YGWC-36	0.04996	0.02994	2	No	10	0.03995	0.01122	0	No	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.0015	0.000081	0.004	No	9	0.000719	0.0007409	44.44	No	0.002	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.0015	0.0001	0.004	No	9	0.0004133	0.0006161	22.22	No	0.002	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.018	0.0142	0.004	Yes	9	0.01529	0.001159	0	No	0.002	NP (normality)
Beryllium (mg/L)	YGWC-36	0.00035	0.00009	0.004	No	10	0.000374	0.0004058	10	No	0.011	NP (normality)
Cadmium (mg/L)	YGWC-23S	0.0005	0.00007	0.005	No	9	0.0004522	0.0001433	88.89	No	0.002	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.0005	0.0005	0.005	No	9	0.0005	0	100	No	0.002	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003184	0.002207	0.005	No	9	0.002656	0.000656	0	x^3	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0005	0.00009	0.005	No	10	0.000238	0.0001444	20	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.005	0.013	No	9	0.005	0	100	No	0.002	NP (NDs)
Cobalt (mg/L)	YGWC-24S	0.005	0.005	0.013	No	9	0.005	0	100	No	0.002	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02116	0.01073	0.013	No	9	0.016	0.006452	0	ln(x)	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	10	0.00456	0.001391	90	No	0.011	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	1.013	0.08989	6.92	No	9	0.5517	0.4783	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.7376	0.2988	6.92	No	9	0.5182	0.2273	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.664	0.4664	6.92	No	9	1.065	0.62	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.202	0.3747	6.92	No	10	0.7884	0.4637	0	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.15	0.03	4	No	10	0.138	0.03795	90	No	0.011	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.15	0.15	4	No	10	0.15	0	100	No	0.011	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5413	0.1656	4	No	10	0.386	0.3765	10	ln(x)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.15	0.009	4	No	11	0.1199	0.05293	54.55	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-23S	0.0039	0.0017	0.04	No	9	0.002267	0.000669	0	No	0.002	NP (normality)
Lithium (mg/L)	YGWC-24S	0.025	0.025	0.04	No	9	0.025	0	100	No	0.002	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.02507	0.0176	0.04	No	9	0.02129	0.004211	0	x^2	0.01	Param.
Lithium (mg/L)	YGWC-36	0.00685	0.00435	0.04	No	10	0.0056	0.001401	0	No	0.01	Param.
Selenium (mg/L)	YGWC-23S	0.04828	0.03165	0.05	No	9	0.03997	0.00861	0	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.005	0.005	0.05	No	9	0.005	0	100	No	0.002	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.01604	0.007408	0.05	No	9	0.01172	0.004468	11.11	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.005	0.0012	0.05	No	10	0.00296	0.001494	30	No	0.011	NP (Cohens/xfrm)

Parametric and Non-Parametric (NP) Confidence Interval

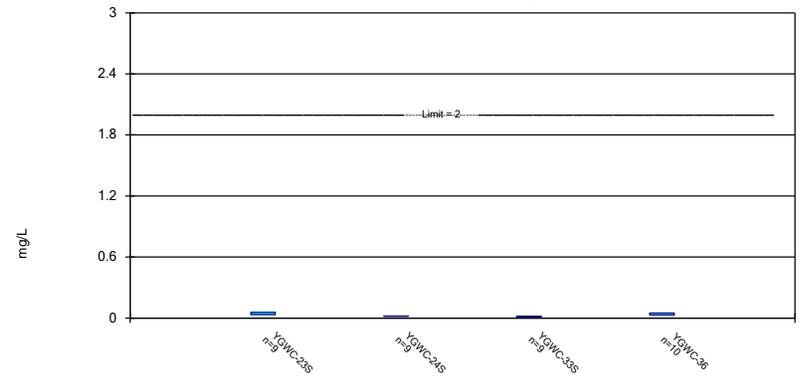
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

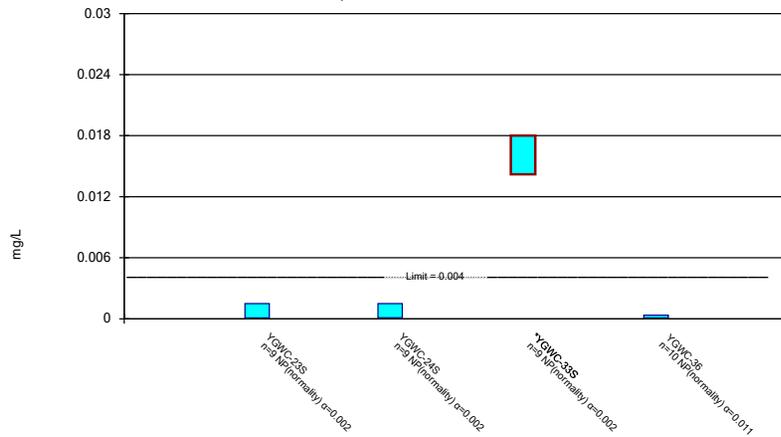
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Non-Parametric Confidence Interval

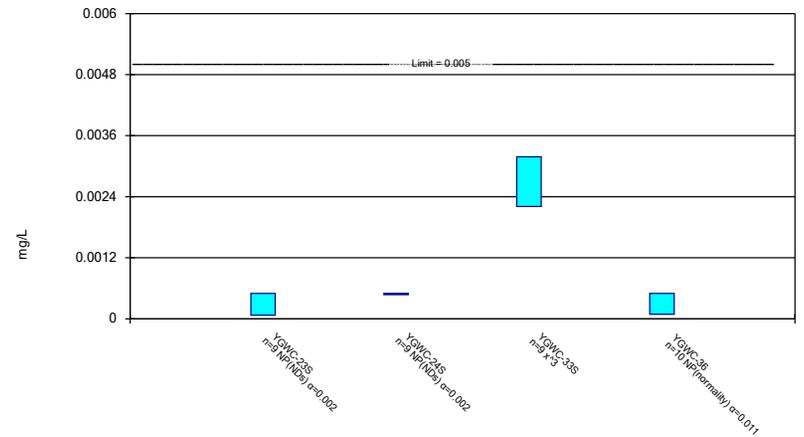
Compliance limit is exceeded.*



Constituent: Beryllium Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

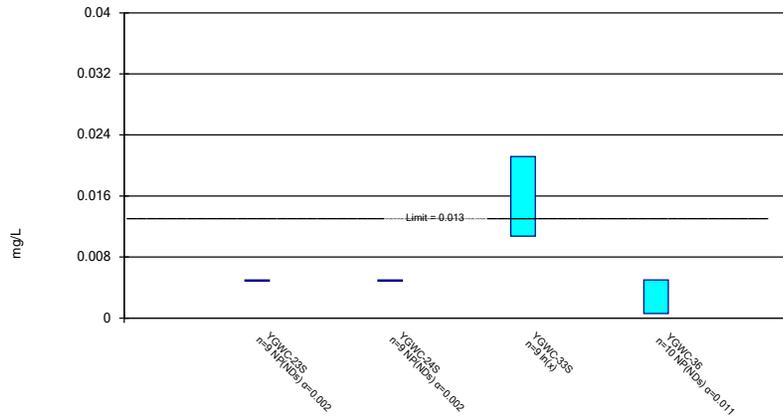
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

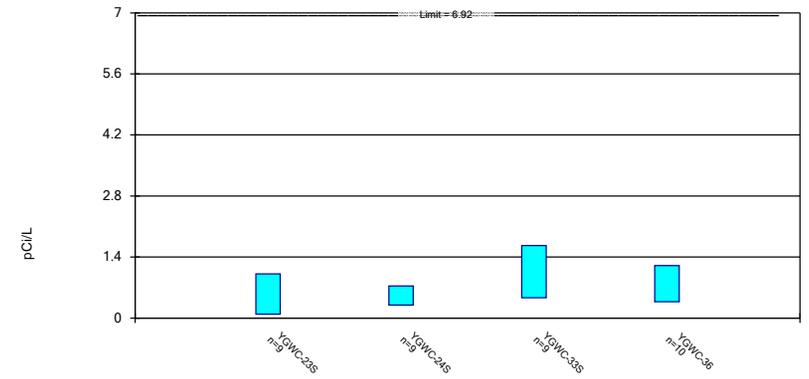
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

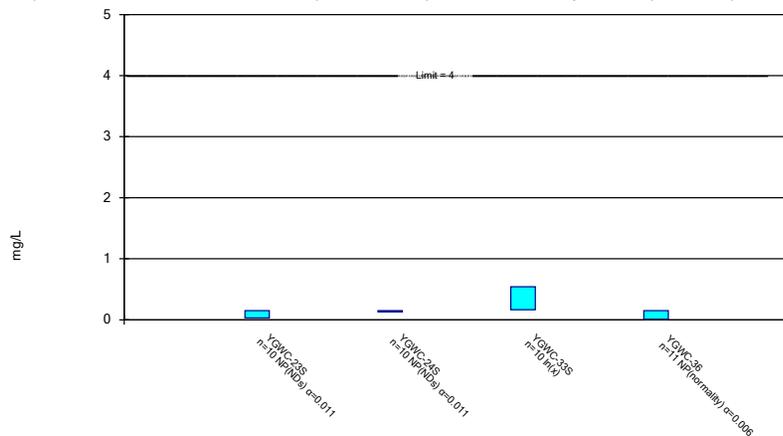
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

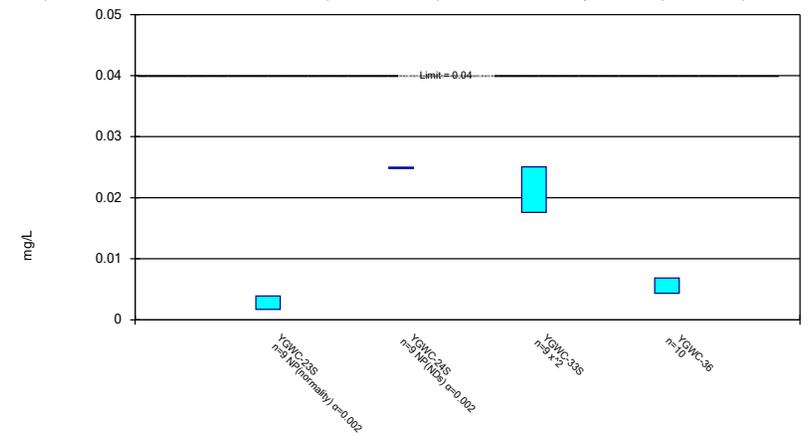
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

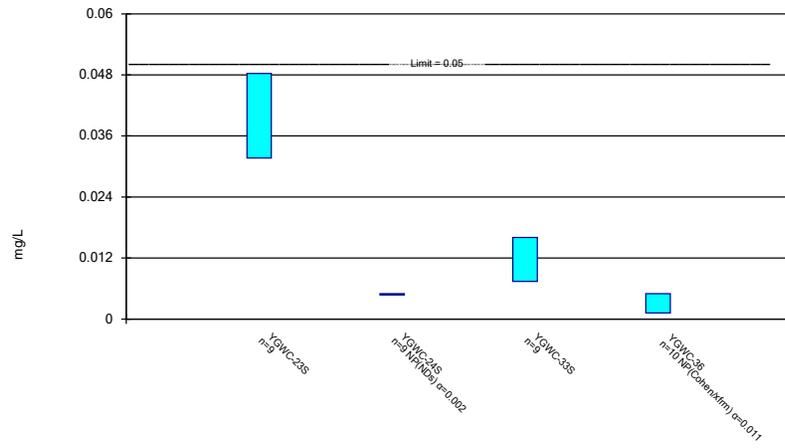
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/11/2019 2:47 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 1/11/2019 2:47 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.005			
8/1/2016		<0.005	0.007	
9/2/2016				<0.005
9/20/2016	<0.005	<0.005		
9/21/2016			0.0054	
11/8/2016	<0.005	<0.005		
11/14/2016			<0.005	<0.005
1/16/2017	<0.005			
1/17/2017		<0.005	0.0027 (J)	
2/28/2017				0.0006 (J)
3/1/2017			0.0041 (J)	
3/8/2017		<0.005		
3/9/2017	<0.005			
5/2/2017	<0.005 (*)	<0.005 (*)		
5/3/2017			0.0037 (J)	
5/9/2017				0.0006 (J)
7/7/2017		<0.005		
7/10/2017	<0.005		0.0044 (J)	
7/13/2017				<0.005
9/22/2017				<0.005
9/29/2017				<0.005
10/6/2017				<0.005
3/30/2018	<0.005	<0.005	0.0049 (J)	<0.005
6/12/2018	<0.005	<0.005	0.002 (J)	
6/13/2018				0.00066 (J)
Mean	0.0025	0.0025	0.004078	0.001936
Std. Dev.	0	0	0.001578	0.0009083
Upper Lim.	0.0025	0.0025	0.005601	0.0025
Lower Lim.	0.0025	0.0025	0.002554	0.0006

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0511			
8/1/2016		0.02	0.02	
9/2/2016				0.0409
9/20/2016	0.0561	0.0203		
9/21/2016			0.0183	
11/8/2016	0.054	0.0191		
11/14/2016			0.0149	0.0182
1/16/2017	0.0528			
1/17/2017		0.0192	<0.0139 (*)	
2/28/2017				0.023
3/1/2017			0.0142	
3/8/2017		0.0189		
3/9/2017	0.0469			
5/2/2017	0.0427	0.019		
5/3/2017			0.0151	
5/9/2017				0.0349
7/7/2017		0.019		
7/10/2017	0.0395		0.0137	
7/13/2017				0.0484
9/22/2017				0.0491
9/29/2017				0.0452
10/6/2017				0.0508
3/30/2018	0.03	0.02	0.012	0.043
6/12/2018	0.024	0.018	0.012	
6/13/2018				0.046
Mean	0.04412	0.01928	0.01413	0.03995
Std. Dev.	0.01118	0.000712	0.003778	0.01122
Upper Lim.	0.05492	0.01997	0.01778	0.04996
Lower Lim.	0.03333	0.01859	0.01048	0.02994

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.003			
8/1/2016		0.0001 (J)	0.0146	
9/2/2016				0.0003 (J)
9/20/2016	0.0001 (J)	0.0001 (J)		
9/21/2016			0.0149	
11/8/2016	<0.003 (*)	<0.003 (*)		
11/14/2016			0.0152	9E-05 (J)
1/16/2017	0.0001 (J)			
1/17/2017		0.0001 (J)	0.0142	
2/28/2017				0.0001 (J)
3/1/2017			0.015	
3/8/2017		0.0001 (J)		
3/9/2017	0.0001 (J)			
5/2/2017	9E-05 (J)	0.0001 (J)		
5/3/2017			0.0154	
5/9/2017				0.0002 (J)
7/7/2017		0.0001 (J)		
7/10/2017	<0.003		0.0143	
7/13/2017				0.0003 (J)
9/22/2017				0.0003 (J)
9/29/2017				0.0003 (J)
10/6/2017				0.0003 (J)
3/30/2018	<0.003	<0.003	0.018	<0.003
6/12/2018	8.1E-05 (J)	0.00012 (J)	0.016	
6/13/2018				0.00035 (J)
Mean	0.000719	0.0004133	0.01529	0.000374
Std. Dev.	0.0007409	0.0006161	0.001159	0.0004058
Upper Lim.	0.0015	0.0015	0.018	0.00035
Lower Lim.	8.1E-05	0.0001	0.0142	9E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.001			
8/1/2016		<0.001	0.0014	
9/2/2016				<0.001
9/20/2016	<0.001	<0.001		
9/21/2016			0.0017	
11/8/2016	7E-05 (J)	<0.001		
11/14/2016			0.0027	9E-05 (J)
1/16/2017	<0.001			
1/17/2017		<0.001	0.0033	
2/28/2017				0.0001 (J)
3/1/2017			0.0031	
3/8/2017		<0.001		
3/9/2017	<0.001			
5/2/2017	<0.001	<0.001		
5/3/2017			0.0031	
5/9/2017				0.0002 (J)
7/7/2017		<0.001		
7/10/2017	<0.001		0.0029	
7/13/2017				0.0002 (J)
9/22/2017				0.0002 (J)
9/29/2017				0.0002 (J)
10/6/2017				0.0002 (J)
3/30/2018	<0.001	<0.001	0.0028	<0.001
6/12/2018	<0.001	<0.001	0.0029	
6/13/2018				0.00019 (J)
Mean	0.0004522	0.0005	0.002656	0.000238
Std. Dev.	0.0001433	0	0.000656	0.0001444
Upper Lim.	0.0005	0.0005	0.003184	0.0005
Lower Lim.	7E-05	0.0005	0.002207	9E-05

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.01			
8/1/2016		<0.01	0.0297	
9/2/2016				0.0006 (J)
9/20/2016	<0.01	<0.01		
9/21/2016			0.0237	
11/8/2016	<0.01	<0.01		
11/14/2016			0.0144	<0.01
1/16/2017	<0.01			
1/17/2017		<0.01	0.0095 (J)	
2/28/2017				<0.01
3/1/2017			0.0125	
3/8/2017		<0.01		
3/9/2017	<0.01			
5/2/2017	<0.01	<0.01		
5/3/2017			0.0151	
5/9/2017				<0.01
7/7/2017		<0.01		
7/10/2017	<0.01		0.0121	
7/13/2017				<0.01
9/22/2017				<0.01
9/29/2017				<0.01
10/6/2017				<0.01
3/30/2018	<0.01	<0.01	0.013	<0.01
6/12/2018	<0.01	<0.01	0.014	
6/13/2018				<0.01
Mean	0.005	0.005	0.016	0.00456
Std. Dev.	0	0	0.006452	0.001391
Upper Lim.	0.005	0.005	0.02116	0.005
Lower Lim.	0.005	0.005	0.01073	0.0006

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.386 (U)			
8/1/2016		0.467 (U)	1.55	
9/2/2016				0.873 (U)
9/20/2016	1.47	0.853 (U)		
9/21/2016			2.36	
9/22/2016				0.667 (U)
9/29/2016				1.63
10/6/2016				0.641 (U)
11/8/2016	0.22 (U)	0.433 (U)		
11/14/2016			0.851 (U)	0.0451 (U)
1/16/2017	0.147 (U)			
1/17/2017		0.0759 (U)	1.41 (U)	
2/28/2017				1.34 (U)
3/1/2017			1.13	
3/8/2017		0.479 (U)		
3/9/2017	0.0892 (U)			
5/2/2017	0.149 (U)	0.506 (U)		
5/3/2017			0.584 (U)	
5/9/2017				0.309 (U)
7/7/2017		0.713 (U)		
7/10/2017	0.815 (U)		0.46 (U)	
7/13/2017				0.618 (U)
3/30/2018	0.659 (U)	0.409 (U)	0.607 (U)	0.721 (U)
6/12/2018	1.03 (U)	0.728 (U)	0.633 (U)	
6/13/2018				1.04 (U)
Mean	0.5517	0.5182	1.065	0.7884
Std. Dev.	0.4783	0.2273	0.62	0.4637
Upper Lim.	1.013	0.7376	1.664	1.202
Lower Lim.	0.08989	0.2988	0.4664	0.3747

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.03 (J)			
8/1/2016		<0.3	0.24 (J)	
9/2/2016				0.05 (J)
9/20/2016	<0.3	<0.3		
9/21/2016			0.22 (J)	
11/8/2016	<0.3	<0.3 (*)		
11/14/2016			0.35	0.18 (J)
1/16/2017	<0.3			
1/17/2017		<0.3	0.22 (J)	
2/28/2017				0.09 (J)
3/1/2017			0.33	
3/8/2017		<0.3 (*)		
3/9/2017	<0.3 (*)			
5/2/2017	<0.3	<0.3		
5/3/2017			0.2 (J)	
5/9/2017				0.009 (J)
7/7/2017		<0.3		
7/10/2017	<0.3 (*)		0.57	
7/13/2017				<0.3
9/22/2017				0.09 (J)
9/29/2017				<0.3
10/5/2017		<0.3		
10/6/2017				<0.3
10/11/2017	<0.3		<0.3 (*)	<0.3 (*)
3/30/2018	<0.3	<0.3	1.4	<0.3
6/12/2018	<0.3	<0.3	0.18 (J)	
6/13/2018				<0.3
Mean	0.138	0.15	0.386	0.1199
Std. Dev.	0.03795	0	0.3765	0.05293
Upper Lim.	0.15	0.15	0.5413	0.15
Lower Lim.	0.03	0.15	0.1656	0.009

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0019 (J)			
8/1/2016		<0.05	0.0142 (J)	
9/2/2016				0.0029 (J)
9/20/2016	0.0021 (J)	<0.05		
9/21/2016			0.0145 (J)	
11/8/2016	0.0024 (J)	<0.05		
11/14/2016			0.0253 (J)	0.0044 (J)
1/16/2017	0.0022 (J)			
1/17/2017		<0.05	0.0256 (J)	
2/28/2017				0.0038 (J)
3/1/2017			0.0219 (J)	
3/8/2017		<0.05		
3/9/2017	0.0025 (J)			
5/2/2017	0.0019 (J)	<0.05		
5/3/2017			0.0217 (J)	
5/9/2017				0.0057 (J)
7/7/2017		<0.05		
7/10/2017	0.0018 (J)		0.0214 (J)	
7/13/2017				0.007 (J)
9/22/2017				0.0067 (J)
9/29/2017				0.0064 (J)
10/6/2017				0.0065 (J)
3/30/2018	0.0039 (J)	<0.05	0.024 (J)	0.0061 (J)
6/12/2018	0.0017 (J)	<0.05	0.023 (J)	
6/13/2018				0.0065 (J)
Mean	0.002267	0.025	0.02129	0.0056
Std. Dev.	0.000669	0	0.004211	0.001401
Upper Lim.	0.0039	0.025	0.02507	0.00685
Lower Lim.	0.0017	0.025	0.0176	0.00435

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0385			
8/1/2016		<0.01	0.0192	
9/2/2016				0.0012 (J)
9/20/2016	0.0464	<0.01		
9/21/2016			0.0147	
11/8/2016	0.0521	<0.01		
11/14/2016			<0.01	<0.01
1/16/2017	0.0469			
1/17/2017		<0.01	0.0122	
2/28/2017				0.0017 (J)
3/1/2017			0.0151	
3/8/2017		<0.01		
3/9/2017	0.0437			
5/2/2017	0.0395	<0.01		
5/3/2017			0.012	
5/9/2017				0.0018 (J)
7/7/2017		<0.01		
7/10/2017	0.0386		0.0106	
7/13/2017				0.0031 (J)
9/22/2017				0.0024 (J)
9/29/2017				0.002 (J)
10/6/2017				<0.01
3/30/2018	0.028	<0.01	0.011	<0.01
6/12/2018	0.026	<0.01	0.0057 (J)	
6/13/2018				0.0024 (J)
Mean	0.03997	0.005	0.01172	0.00296
Std. Dev.	0.00861	0	0.004468	0.001494
Upper Lim.	0.04828	0.005	0.01604	0.005
Lower Lim.	0.03165	0.005	0.007408	0.0012

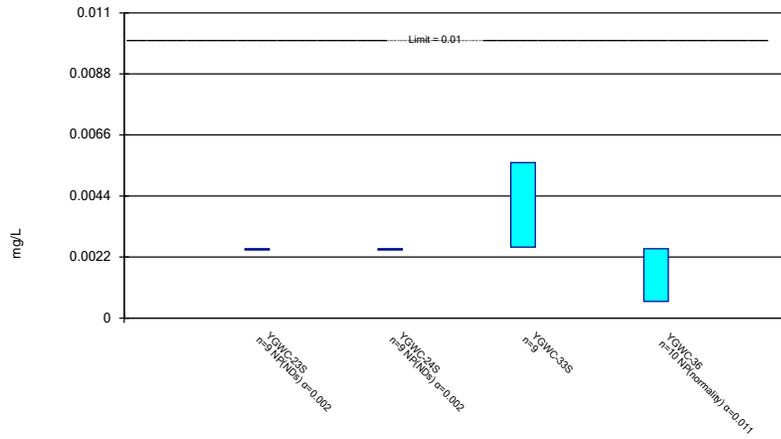
Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B Printed 1/11/2019, 10:34 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	YGWC-23S	0.0025	0.0025	0.01	No	9	0.0025	0	100	No	0.002	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.0025	0.0025	0.01	No	9	0.0025	0	100	No	0.002	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.005601	0.002554	0.01	No	9	0.004078	0.001578	11.11	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.0025	0.0006	0.01	No	10	0.001936	0.0009083	70	No	0.011	NP (normality)
Barium (mg/L)	YGWC-23S	0.05492	0.03333	2	No	9	0.04412	0.01118	0	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01997	0.01859	2	No	9	0.01928	0.000712	0	No	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01778	0.01048	2	No	9	0.01413	0.003778	11.11	No	0.01	Param.
Barium (mg/L)	YGWC-36	0.04996	0.02994	2	No	10	0.03995	0.01122	0	No	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.0015	0.000081	0.004	No	9	0.000719	0.0007409	44.44	No	0.002	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.0015	0.0001	0.004	No	9	0.0004133	0.0006161	22.22	No	0.002	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.018	0.0142	0.004	Yes	9	0.01529	0.001159	0	No	0.002	NP (normality)
Beryllium (mg/L)	YGWC-36	0.00035	0.00009	0.004	No	10	0.000374	0.0004058	10	No	0.011	NP (normality)
Cadmium (mg/L)	YGWC-23S	0.0005	0.00007	0.005	No	9	0.0004522	0.0001433	88.89	No	0.002	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.0005	0.0005	0.005	No	9	0.0005	0	100	No	0.002	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003184	0.002207	0.005	No	9	0.002656	0.000656	0	x^3	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0005	0.00009	0.005	No	10	0.000238	0.0001444	20	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.005	0.013	No	9	0.005	0	100	No	0.002	NP (NDs)
Cobalt (mg/L)	YGWC-24S	0.005	0.005	0.013	No	9	0.005	0	100	No	0.002	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02116	0.01073	0.013	No	9	0.016	0.006452	0	ln(x)	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	10	0.00456	0.001391	90	No	0.011	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	1.013	0.08989	6.92	No	9	0.5517	0.4783	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.7376	0.2988	6.92	No	9	0.5182	0.2273	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.664	0.4664	6.92	No	9	1.065	0.62	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.202	0.3747	6.92	No	10	0.7884	0.4637	0	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.15	0.03	4	No	10	0.138	0.03795	90	No	0.011	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.15	0.15	4	No	10	0.15	0	100	No	0.011	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5413	0.1656	4	No	10	0.386	0.3765	10	ln(x)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.15	0.009	4	No	11	0.1199	0.05293	54.55	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-23S	0.0039	0.0017	0.025	No	9	0.002267	0.000669	0	No	0.002	NP (normality)
Lithium (mg/L)	YGWC-24S	0.025	0.025	0.025	No	9	0.025	0	100	No	0.002	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.02507	0.0176	0.025	No	9	0.02129	0.004211	0	x^2	0.01	Param.
Lithium (mg/L)	YGWC-36	0.00685	0.00435	0.025	No	10	0.0056	0.001401	0	No	0.01	Param.
Selenium (mg/L)	YGWC-23S	0.04828	0.03165	0.05	No	9	0.03997	0.00861	0	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.005	0.005	0.05	No	9	0.005	0	100	No	0.002	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.01604	0.007408	0.05	No	9	0.01172	0.004468	11.11	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.005	0.0012	0.05	No	10	0.00296	0.001494	30	No	0.011	NP (Cohens/xfrm)

Parametric and Non-Parametric (NP) Confidence Interval

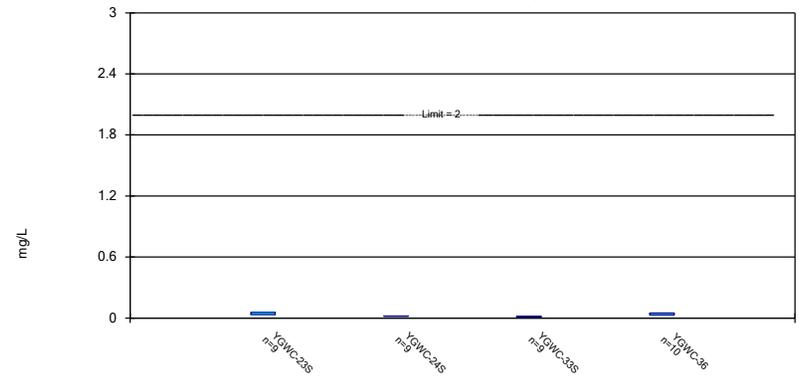
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

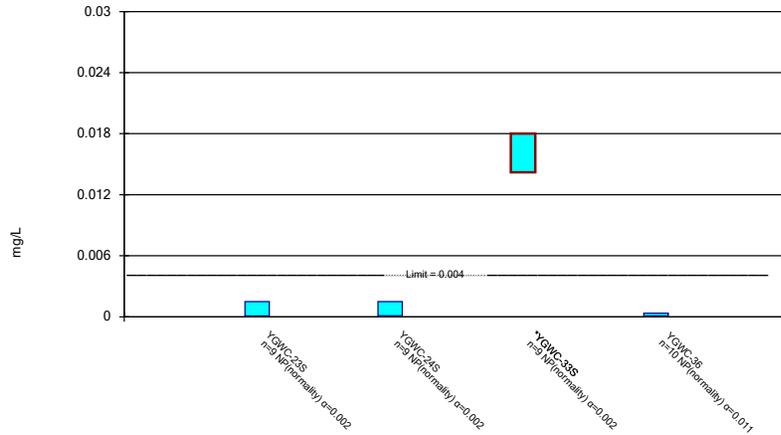
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Non-Parametric Confidence Interval

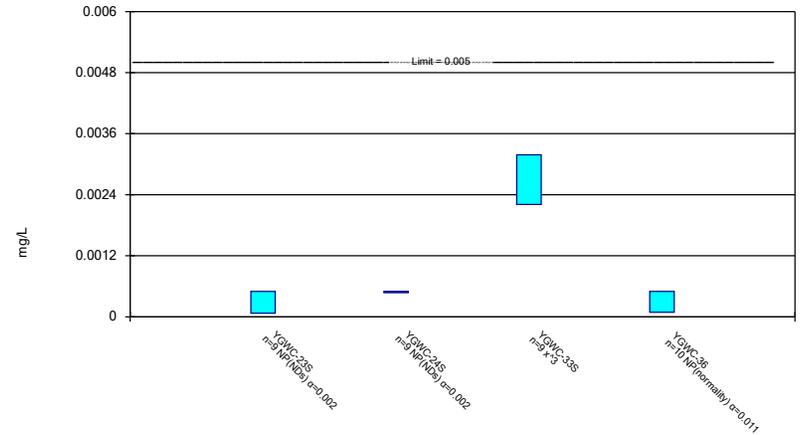
Compliance limit is exceeded.*



Constituent: Beryllium Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

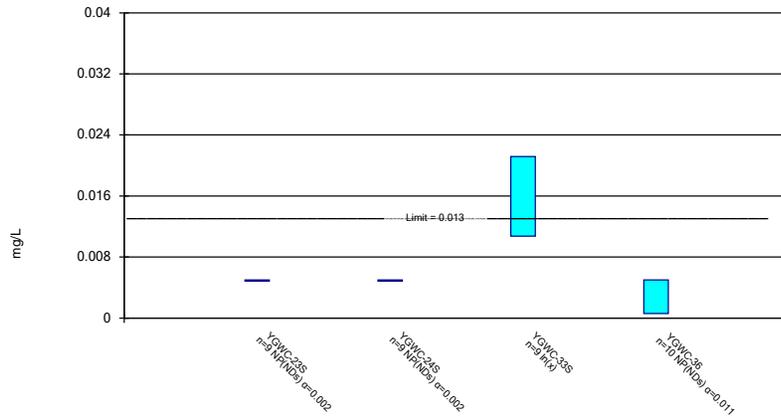
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

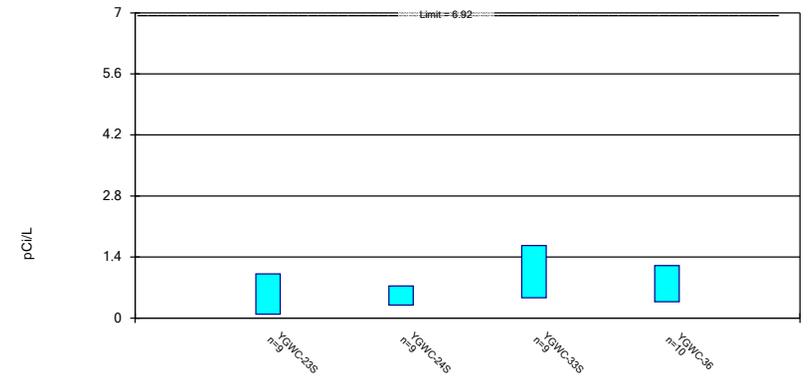
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

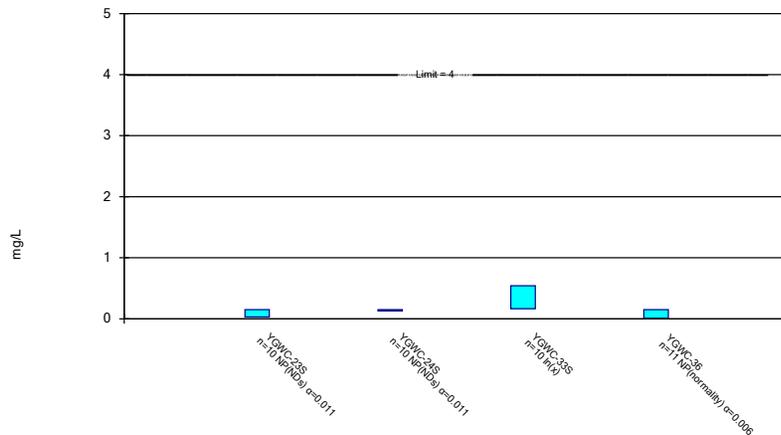
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

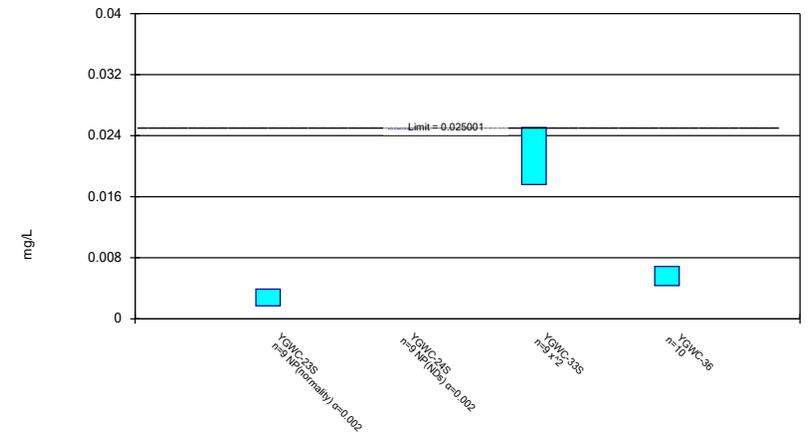
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

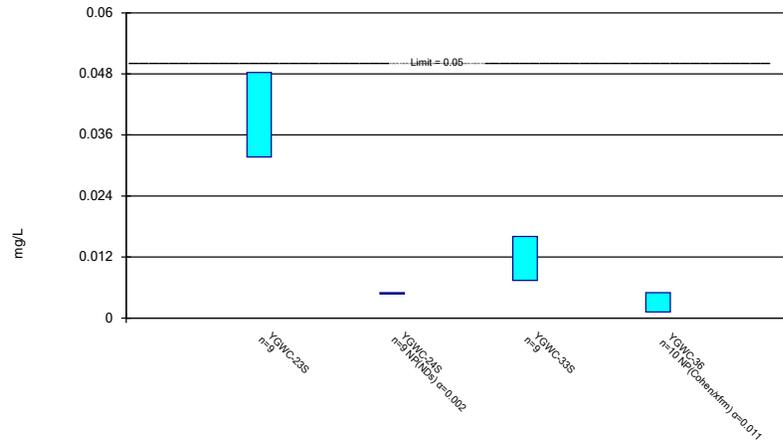
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/11/2019 10:32 AM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 1/11/2019 10:32 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.005			
8/1/2016		<0.005	0.007	
9/2/2016				<0.005
9/20/2016	<0.005	<0.005		
9/21/2016			0.0054	
11/8/2016	<0.005	<0.005		
11/14/2016			<0.005	<0.005
1/16/2017	<0.005			
1/17/2017		<0.005	0.0027 (J)	
2/28/2017				0.0006 (J)
3/1/2017			0.0041 (J)	
3/8/2017		<0.005		
3/9/2017	<0.005			
5/2/2017	<0.005 (*)	<0.005 (*)		
5/3/2017			0.0037 (J)	
5/9/2017				0.0006 (J)
7/7/2017		<0.005		
7/10/2017	<0.005		0.0044 (J)	
7/13/2017				<0.005
9/22/2017				<0.005
9/29/2017				<0.005
10/6/2017				<0.005
3/30/2018	<0.005	<0.005	0.0049 (J)	<0.005
6/12/2018	<0.005	<0.005	0.002 (J)	
6/13/2018				0.00066 (J)
Mean	0.0025	0.0025	0.004078	0.001936
Std. Dev.	0	0	0.001578	0.0009083
Upper Lim.	0.0025	0.0025	0.005601	0.0025
Lower Lim.	0.0025	0.0025	0.002554	0.0006

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0511			
8/1/2016		0.02	0.02	
9/2/2016				0.0409
9/20/2016	0.0561	0.0203		
9/21/2016			0.0183	
11/8/2016	0.054	0.0191		
11/14/2016			0.0149	0.0182
1/16/2017	0.0528			
1/17/2017		0.0192	<0.0139 (*)	
2/28/2017				0.023
3/1/2017			0.0142	
3/8/2017		0.0189		
3/9/2017	0.0469			
5/2/2017	0.0427	0.019		
5/3/2017			0.0151	
5/9/2017				0.0349
7/7/2017		0.019		
7/10/2017	0.0395		0.0137	
7/13/2017				0.0484
9/22/2017				0.0491
9/29/2017				0.0452
10/6/2017				0.0508
3/30/2018	0.03	0.02	0.012	0.043
6/12/2018	0.024	0.018	0.012	
6/13/2018				0.046
Mean	0.04412	0.01928	0.01413	0.03995
Std. Dev.	0.01118	0.000712	0.003778	0.01122
Upper Lim.	0.05492	0.01997	0.01778	0.04996
Lower Lim.	0.03333	0.01859	0.01048	0.02994

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.003			
8/1/2016		0.0001 (J)	0.0146	
9/2/2016				0.0003 (J)
9/20/2016	0.0001 (J)	0.0001 (J)		
9/21/2016			0.0149	
11/8/2016	<0.003 (*)	<0.003 (*)		
11/14/2016			0.0152	9E-05 (J)
1/16/2017	0.0001 (J)			
1/17/2017		0.0001 (J)	0.0142	
2/28/2017				0.0001 (J)
3/1/2017			0.015	
3/8/2017		0.0001 (J)		
3/9/2017	0.0001 (J)			
5/2/2017	9E-05 (J)	0.0001 (J)		
5/3/2017			0.0154	
5/9/2017				0.0002 (J)
7/7/2017		0.0001 (J)		
7/10/2017	<0.003		0.0143	
7/13/2017				0.0003 (J)
9/22/2017				0.0003 (J)
9/29/2017				0.0003 (J)
10/6/2017				0.0003 (J)
3/30/2018	<0.003	<0.003	0.018	<0.003
6/12/2018	8.1E-05 (J)	0.00012 (J)	0.016	
6/13/2018				0.00035 (J)
Mean	0.000719	0.0004133	0.01529	0.000374
Std. Dev.	0.0007409	0.0006161	0.001159	0.0004058
Upper Lim.	0.0015	0.0015	0.018	0.00035
Lower Lim.	8.1E-05	0.0001	0.0142	9E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.001			
8/1/2016		<0.001	0.0014	
9/2/2016				<0.001
9/20/2016	<0.001	<0.001		
9/21/2016			0.0017	
11/8/2016	7E-05 (J)	<0.001		
11/14/2016			0.0027	9E-05 (J)
1/16/2017	<0.001			
1/17/2017		<0.001	0.0033	
2/28/2017				0.0001 (J)
3/1/2017			0.0031	
3/8/2017		<0.001		
3/9/2017	<0.001			
5/2/2017	<0.001	<0.001		
5/3/2017			0.0031	
5/9/2017				0.0002 (J)
7/7/2017		<0.001		
7/10/2017	<0.001		0.0029	
7/13/2017				0.0002 (J)
9/22/2017				0.0002 (J)
9/29/2017				0.0002 (J)
10/6/2017				0.0002 (J)
3/30/2018	<0.001	<0.001	0.0028	<0.001
6/12/2018	<0.001	<0.001	0.0029	
6/13/2018				0.00019 (J)
Mean	0.0004522	0.0005	0.002656	0.000238
Std. Dev.	0.0001433	0	0.000656	0.0001444
Upper Lim.	0.0005	0.0005	0.003184	0.0005
Lower Lim.	7E-05	0.0005	0.002207	9E-05

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.01			
8/1/2016		<0.01	0.0297	
9/2/2016				0.0006 (J)
9/20/2016	<0.01	<0.01		
9/21/2016			0.0237	
11/8/2016	<0.01	<0.01		
11/14/2016			0.0144	<0.01
1/16/2017	<0.01			
1/17/2017		<0.01	0.0095 (J)	
2/28/2017				<0.01
3/1/2017			0.0125	
3/8/2017		<0.01		
3/9/2017	<0.01			
5/2/2017	<0.01	<0.01		
5/3/2017			0.0151	
5/9/2017				<0.01
7/7/2017		<0.01		
7/10/2017	<0.01		0.0121	
7/13/2017				<0.01
9/22/2017				<0.01
9/29/2017				<0.01
10/6/2017				<0.01
3/30/2018	<0.01	<0.01	0.013	<0.01
6/12/2018	<0.01	<0.01	0.014	
6/13/2018				<0.01
Mean	0.005	0.005	0.016	0.00456
Std. Dev.	0	0	0.006452	0.001391
Upper Lim.	0.005	0.005	0.02116	0.005
Lower Lim.	0.005	0.005	0.01073	0.0006

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.386 (U)			
8/1/2016		0.467 (U)	1.55	
9/2/2016				0.873 (U)
9/20/2016	1.47	0.853 (U)		
9/21/2016			2.36	
9/22/2016				0.667 (U)
9/29/2016				1.63
10/6/2016				0.641 (U)
11/8/2016	0.22 (U)	0.433 (U)		
11/14/2016			0.851 (U)	0.0451 (U)
1/16/2017	0.147 (U)			
1/17/2017		0.0759 (U)	1.41 (U)	
2/28/2017				1.34 (U)
3/1/2017			1.13	
3/8/2017		0.479 (U)		
3/9/2017	0.0892 (U)			
5/2/2017	0.149 (U)	0.506 (U)		
5/3/2017			0.584 (U)	
5/9/2017				0.309 (U)
7/7/2017		0.713 (U)		
7/10/2017	0.815 (U)		0.46 (U)	
7/13/2017				0.618 (U)
3/30/2018	0.659 (U)	0.409 (U)	0.607 (U)	0.721 (U)
6/12/2018	1.03 (U)	0.728 (U)	0.633 (U)	
6/13/2018				1.04 (U)
Mean	0.5517	0.5182	1.065	0.7884
Std. Dev.	0.4783	0.2273	0.62	0.4637
Upper Lim.	1.013	0.7376	1.664	1.202
Lower Lim.	0.08989	0.2988	0.4664	0.3747

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.03 (J)			
8/1/2016		<0.3	0.24 (J)	
9/2/2016				0.05 (J)
9/20/2016	<0.3	<0.3		
9/21/2016			0.22 (J)	
11/8/2016	<0.3	<0.3 (*)		
11/14/2016			0.35	0.18 (J)
1/16/2017	<0.3			
1/17/2017		<0.3	0.22 (J)	
2/28/2017				0.09 (J)
3/1/2017			0.33	
3/8/2017		<0.3 (*)		
3/9/2017	<0.3 (*)			
5/2/2017	<0.3	<0.3		
5/3/2017			0.2 (J)	
5/9/2017				0.009 (J)
7/7/2017		<0.3		
7/10/2017	<0.3 (*)		0.57	
7/13/2017				<0.3
9/22/2017				0.09 (J)
9/29/2017				<0.3
10/5/2017		<0.3		
10/6/2017				<0.3
10/11/2017	<0.3		<0.3 (*)	<0.3 (*)
3/30/2018	<0.3	<0.3	1.4	<0.3
6/12/2018	<0.3	<0.3	0.18 (J)	
6/13/2018				<0.3
Mean	0.138	0.15	0.386	0.1199
Std. Dev.	0.03795	0	0.3765	0.05293
Upper Lim.	0.15	0.15	0.5413	0.15
Lower Lim.	0.03	0.15	0.1656	0.009

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0019 (J)			
8/1/2016		<0.05	0.0142 (J)	
9/2/2016				0.0029 (J)
9/20/2016	0.0021 (J)	<0.05		
9/21/2016			0.0145 (J)	
11/8/2016	0.0024 (J)	<0.05		
11/14/2016			0.0253 (J)	0.0044 (J)
1/16/2017	0.0022 (J)			
1/17/2017		<0.05	0.0256 (J)	
2/28/2017				0.0038 (J)
3/1/2017			0.0219 (J)	
3/8/2017		<0.05		
3/9/2017	0.0025 (J)			
5/2/2017	0.0019 (J)	<0.05		
5/3/2017			0.0217 (J)	
5/9/2017				0.0057 (J)
7/7/2017		<0.05		
7/10/2017	0.0018 (J)		0.0214 (J)	
7/13/2017				0.007 (J)
9/22/2017				0.0067 (J)
9/29/2017				0.0064 (J)
10/6/2017				0.0065 (J)
3/30/2018	0.0039 (J)	<0.05	0.024 (J)	0.0061 (J)
6/12/2018	0.0017 (J)	<0.05	0.023 (J)	
6/13/2018				0.0065 (J)
Mean	0.002267	0.025	0.02129	0.0056
Std. Dev.	0.000669	0	0.004211	0.001401
Upper Lim.	0.0039	0.025	0.02507	0.00685
Lower Lim.	0.0017	0.025	0.0176	0.00435

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 1/11/2019 10:34 AM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0385			
8/1/2016		<0.01	0.0192	
9/2/2016				0.0012 (J)
9/20/2016	0.0464	<0.01		
9/21/2016			0.0147	
11/8/2016	0.0521	<0.01		
11/14/2016			<0.01	<0.01
1/16/2017	0.0469			
1/17/2017		<0.01	0.0122	
2/28/2017				0.0017 (J)
3/1/2017			0.0151	
3/8/2017		<0.01		
3/9/2017	0.0437			
5/2/2017	0.0395	<0.01		
5/3/2017			0.012	
5/9/2017				0.0018 (J)
7/7/2017		<0.01		
7/10/2017	0.0386		0.0106	
7/13/2017				0.0031 (J)
9/22/2017				0.0024 (J)
9/29/2017				0.002 (J)
10/6/2017				<0.01
3/30/2018	0.028	<0.01	0.011	<0.01
6/12/2018	0.026	<0.01	0.0057 (J)	
6/13/2018				0.0024 (J)
Mean	0.03997	0.005	0.01172	0.00296
Std. Dev.	0.00861	0	0.004468	0.001494
Upper Lim.	0.04828	0.005	0.01604	0.005
Lower Lim.	0.03165	0.005	0.007408	0.0012

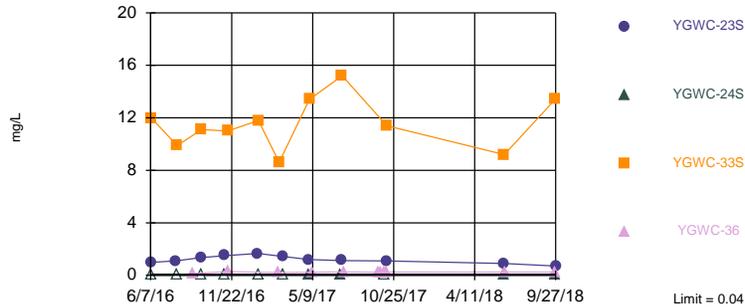
Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B Printed 12/17/2018, 3:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWC-23S	0.04	n/a	9/27/2018	0.71	Yes	88	59.09	n/a	0.00025	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-24S	0.04	n/a	9/26/2018	0.0055	No	88	59.09	n/a	0.00025	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-33S	0.04	n/a	9/26/2018	13.4	Yes	88	59.09	n/a	0.00025	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-36	0.04	n/a	9/26/2018	0.24	Yes	88	59.09	n/a	0.00025	NP Inter (NDs) 1 of 2
Calcium (mg/L)	YGWC-23S	37	n/a	9/27/2018	4.1	No	88	0	n/a	0.00025	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-24S	37	n/a	9/26/2018	1.7	No	88	0	n/a	0.00025	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	9/26/2018	144	Yes	88	0	n/a	0.00025	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-36	37	n/a	9/26/2018	19.8	No	88	0	n/a	0.00025	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-23S	0.3	n/a	9/27/2018	0.3ND	No	96	89.58	n/a	0.0002111	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-24S	0.3	n/a	9/26/2018	0.3ND	No	96	89.58	n/a	0.0002111	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-33S	0.3	n/a	9/26/2018	0.07	No	96	89.58	n/a	0.0002111	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-36	0.3	n/a	9/26/2018	0.3ND	No	96	89.58	n/a	0.0002111	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-23S	7.67	4.86	9/27/2018	5.47	No	88	0	n/a	0.0004999	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-24S	7.67	4.86	9/26/2018	5.61	No	88	0	n/a	0.0004999	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-33S	7.67	4.86	9/26/2018	3.97	Yes	88	0	n/a	0.0004999	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-36	7.67	4.86	9/26/2018	5.53	No	88	0	n/a	0.0004999	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-23S	20	n/a	9/27/2018	39.6	Yes	88	11.36	n/a	0.00025	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-24S	20	n/a	9/26/2018	0.28	No	88	11.36	n/a	0.00025	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-33S	20	n/a	9/26/2018	895	Yes	88	11.36	n/a	0.00025	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-36	20	n/a	9/26/2018	160	Yes	88	11.36	n/a	0.00025	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-23S	185.7	n/a	9/27/2018	105	No	88	0	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-24S	185.7	n/a	9/26/2018	59	No	88	0	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-33S	185.7	n/a	9/26/2018	1280	Yes	88	0	sqrt(x)	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-36	185.7	n/a	9/26/2018	277	Yes	88	0	sqrt(x)	0.001504	Param Inter 1 of 2

Exceeds Limit: YGWC-23S, YGWC-33S, YGWC-36

Prediction Limit
Interwell Non-parametric

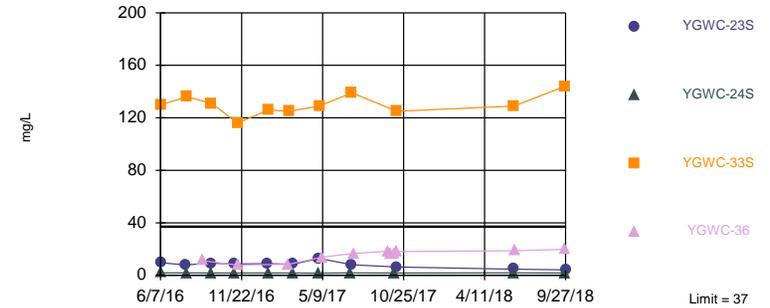


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 88 background values. 59.09% NDs. Annual per-constituent alpha = 0.002497. Individual comparison alpha = 0.00025 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Boron Analysis Run 12/17/2018 3:13 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limit: YGWC-33S

Prediction Limit
Interwell Non-parametric

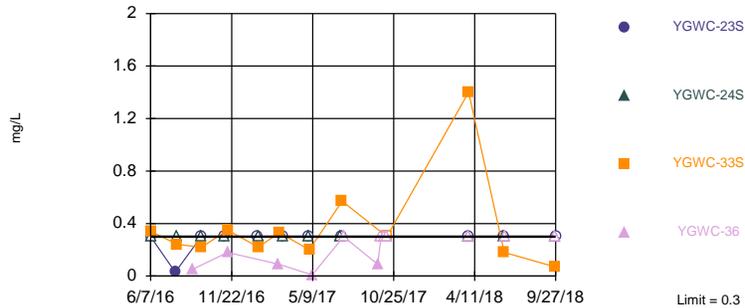


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 88 background values. Annual per-constituent alpha = 0.002497. Individual comparison alpha = 0.00025 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Calcium Analysis Run 12/17/2018 3:13 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Within Limit

Prediction Limit
Interwell Non-parametric

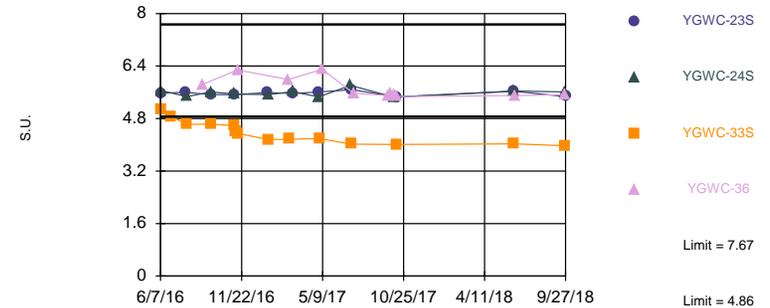


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 96 background values. 89.58% NDs. Annual per-constituent alpha = 0.002109. Individual comparison alpha = 0.0002111 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Fluoride Analysis Run 12/17/2018 3:13 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limits: YGWC-33S

Prediction Limit
Interwell Non-parametric

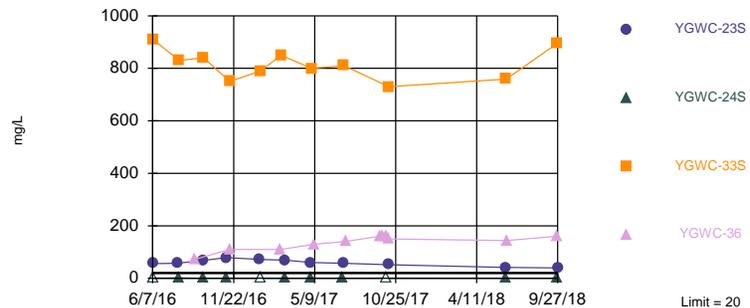


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 88 background values. Annual per-constituent alpha = 0.004994. Individual comparison alpha = 0.0004999 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: pH Analysis Run 12/17/2018 3:13 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limit: YGWC-23S, YGWC-33S,
 YGWC-36

Prediction Limit
 Interwell Non-parametric

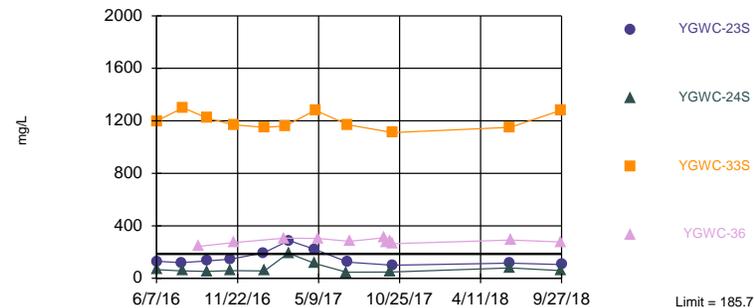


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 88 background values. 11.36% NDs. Annual per-constituent alpha = 0.002497. Individual comparison alpha = 0.00025 (1 of 2). Comparing 4 points to limit. Assumes 1 future value.

Constituent: Sulfate Analysis Run 12/17/2018 3:13 PM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limit: YGWC-33S, YGWC-36

Prediction Limit
 Interwell Parametric



Background Data Summary (based on square root transformation): Mean=9.548, Std. Dev.=2.254, n=88. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9781, critical = 0.961. Kappa = 1.81 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 4 points to limit. Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 3:13 PM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-21I (bg)
6/2/2016	<0.04	<0.04	<0.04						
6/6/2016				<0.04	<0.04				
6/7/2016						<0.04 (*)	<0.04	0.99	<0.04
6/8/2016									
7/26/2016	0.0047 (J)	<0.04	0.0052 (J)						
7/27/2016				0.0059 (J)	<0.04	0.008 (J)	<0.04		
7/28/2016								1.09	<0.04 (*)
8/1/2016									
9/2/2016									
9/14/2016	<0.04	0.01 (J)	0.0071 (J)						
9/16/2016				0.0079 (J)		0.0086 (J)			
9/19/2016					<0.04		<0.04		<0.04
9/20/2016								1.35	
9/21/2016									
11/2/2016	<0.04		<0.04				<0.04		
11/3/2016				0.0082 (J)	<0.04	0.0077 (J)			<0.04
11/4/2016		<0.04							
11/8/2016								1.5	
11/14/2016									
1/11/2017				0.0096 (J)	<0.04	0.0092 (J)			
1/12/2017		<0.04	0.0076 (J)						
1/13/2017	<0.04						<0.04		<0.04
1/16/2017								1.67	
1/17/2017									
2/28/2017									
3/1/2017				<0.04 (*)	<0.04				
3/2/2017						0.0095 (J)			
3/6/2017	<0.04						<0.04		<0.04
3/7/2017		<0.04	0.0089 (J)						
3/8/2017									
3/9/2017								1.44	
4/26/2017				0.0091 (J)	<0.04		<0.04		<0.04
5/1/2017	<0.04		0.0061 (J)						
5/2/2017		<0.04				<0.04		1.2	
5/3/2017									
5/9/2017									
6/27/2017		<0.04	0.0079 (J)						
6/28/2017				0.0079 (J)	<0.04				
6/29/2017	<0.04					0.0074 (J)	<0.04		<0.04
7/7/2017									
7/10/2017								1.12	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		<0.04	0.0094 (J)						<0.04
10/4/2017				0.009 (J)		0.0077 (J)	<0.04		
10/5/2017	<0.04				<0.04				
10/6/2017									
10/11/2017								1.09	
6/5/2018									0.0092 (J)
6/6/2018			0.0098 (J)				0.0049 (J)		
6/7/2018	0.0045 (J)	<0.04			<0.04				

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	12	<0.04	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	9.89	<0.04 (*)	
9/2/2016			0.133
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		<0.04 (*)	
9/21/2016	11.1		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016		<0.04 (*)	
11/14/2016	11		0.287
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	11.8	<0.04 (*)	
2/28/2017			0.215
3/1/2017	8.61		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		<0.04	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		0.0099 (J)	
5/3/2017	13.4		
5/9/2017			0.233
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		0.0076 (J)	
7/10/2017	15.2		
7/13/2017			0.262
9/22/2017			0.238
9/29/2017			0.235
10/3/2017			
10/4/2017			
10/5/2017		<0.04	
10/6/2017			0.256
10/11/2017	11.4		0.245
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/11/2018			
6/12/2018	9.2	0.018 (J)	
6/13/2018			0.25
9/25/2018			
9/26/2018	13.4	0.0055 (J)	0.24
9/27/2018			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-21I (bg)
6/2/2016	8.8	2.4	33						
6/6/2016				1.4	6.2				
6/7/2016						2.2	2.3	9.6	3.7
6/8/2016									
7/26/2016	7.69	2.12	32.3						
7/27/2016				1.19	4.73	2	2.08		
7/28/2016								7.87	3.15
8/1/2016									
9/2/2016									
9/14/2016	8.49	2.18	31						
9/16/2016				1.5		1.97			
9/19/2016					4.76		1.97		3.17
9/20/2016								9.28	
9/21/2016									
11/2/2016	7.83		30.9				2.13		
11/3/2016				1.31	5.25	1.99			3.4
11/4/2016		2.17 (J)							
11/8/2016								8.6	
11/14/2016									
1/11/2017				1.25	4.74	2.28			
1/12/2017		2.37	35.7						
1/13/2017	8.08						2.45		4.98
1/16/2017								8.85	
1/17/2017									
2/28/2017									
3/1/2017				1.26	5.37				
3/2/2017						2.15			
3/6/2017	8.64						2.48		6.28
3/7/2017		2.34	32.7						
3/8/2017									
3/9/2017								8.4	
4/26/2017				1.05	4.28		2.3		6.65
5/1/2017	13.4		37						
5/2/2017		2.17				1.95		12.9	
5/3/2017									
5/9/2017									
6/27/2017		2.13	36.5						
6/28/2017				1.06	4.95				
6/29/2017	8.81					2.02	2.54		6.04
7/7/2017									
7/10/2017								8.09	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		2.15	30.9						8.28
10/4/2017				1.1		2.03	2.25		
10/5/2017	9.29				5.28				
10/6/2017									
10/11/2017								6.36	
6/5/2018									9.1
6/6/2018			26.2				2.3		
6/7/2018	8.2	2.3			4.8				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	130	1.9	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	136	1.83	
9/2/2016			11.2
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		1.78	
9/21/2016	131		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016		1.77	
11/14/2016	116		7.79
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	126	1.7	
2/28/2017			8.37
3/1/2017	125		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		1.77	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		1.57	
5/3/2017	129		
5/9/2017			13.9
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		1.8	
7/10/2017	139		
7/13/2017			16.6
9/22/2017			18.4
9/29/2017			16.1
10/3/2017			
10/4/2017			
10/5/2017		1.7	
10/6/2017			16.6
10/11/2017	125		18.1
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/11/2018			
6/12/2018	129	1.8	
6/13/2018			18.7 (J)
9/25/2018			
9/26/2018	144	1.7	19.8 (J)
9/27/2018			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWC-23S	YGWA-20S (bg)	YGWA-17S (bg)
6/2/2016	<0.3	0.11 (J)	<0.3						
6/6/2016				<0.3	<0.3				
6/7/2016						<0.3	<0.3	<0.3	<0.3
6/8/2016									
7/26/2016	<0.3	0.05 (J)	<0.3						
7/27/2016				<0.3	<0.3			<0.3	<0.3
7/28/2016						0.02 (J)	0.03 (J)		
8/1/2016									
9/2/2016									
9/14/2016	<0.3	0.04 (J)	<0.3						
9/16/2016				<0.3					<0.3
9/19/2016					<0.3	0.02 (J)		<0.3	
9/20/2016							<0.3		
9/21/2016									
11/2/2016	<0.3 (*)	<0.3 (*)						<0.3	
11/3/2016				<0.3	<0.3	<0.3 (*)			<0.3
11/4/2016			<0.3						
11/8/2016							<0.3		
11/14/2016									
1/11/2017				<0.3	<0.3				<0.3
1/12/2017		0.04 (J)	<0.3						
1/13/2017	<0.3					<0.3		<0.3	
1/16/2017							<0.3		
1/17/2017									
2/28/2017									
3/1/2017				<0.3 (*)	<0.3 (*)				
3/2/2017									<0.3 (*)
3/6/2017	<0.3 (*)					<0.3 (*)		<0.3 (*)	
3/7/2017		<0.3 (*)	<0.3 (*)						
3/8/2017									
3/9/2017							<0.3 (*)		
4/26/2017				<0.3	<0.3	0.04 (J)		<0.3	
5/1/2017	<0.3	<0.3 (*)							
5/2/2017			<0.3				<0.3		<0.3
5/3/2017									
5/9/2017									
6/27/2017		<0.3 (*)	<0.3						
6/28/2017				<0.3	<0.3				
6/29/2017	<0.3 (*)					<0.3 (*)		<0.3 (*)	<0.3 (*)
7/7/2017									
7/10/2017							<0.3 (*)		
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		<0.3 (*)	<0.3			<0.3 (*)			
10/4/2017				<0.3				<0.3	<0.3
10/5/2017	<0.3				<0.3				
10/6/2017									
10/11/2017							<0.3		
3/28/2018				<0.3	<0.3				<0.3
3/29/2018	<0.3	<0.3	<0.3			<0.3		<0.3	
3/30/2018							<0.3		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWC-23S	YGWA-20S (bg)	YGWA-17S (bg)
6/5/2018						0.13 (J)			
6/6/2018		0.15 (J)						<0.3	
6/7/2018	<0.3		<0.3		<0.3				
6/11/2018				<0.3					<0.3
6/12/2018							<0.3		
6/13/2018									
9/25/2018				<0.3	<0.3	0 (J)		<0.3	<0.3
9/26/2018	<0.3	<0.3	<0.3						
9/27/2018							<0.3		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	0.34	<0.3	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	0.24 (J)	<0.3	
9/2/2016			0.05 (J)
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		<0.3	
9/21/2016	0.22 (J)		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016		<0.3 (*)	
11/14/2016	0.35		0.18 (J)
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	0.22 (J)	<0.3	
2/28/2017			0.09 (J)
3/1/2017	0.33		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		<0.3 (*)	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		<0.3	
5/3/2017	0.2 (J)		
5/9/2017			0.009 (J)
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		<0.3	
7/10/2017	0.57		
7/13/2017			<0.3
9/22/2017			0.09 (J)
9/29/2017			<0.3
10/3/2017			
10/4/2017			
10/5/2017		<0.3	
10/6/2017			<0.3
10/11/2017	<0.3 (*)		<0.3 (*)
3/28/2018			
3/29/2018			
3/30/2018	1.4	<0.3	<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/5/2018			
6/6/2018			
6/7/2018			
6/11/2018			
6/12/2018	0.18 (J)	<0.3	
6/13/2018			<0.3
9/25/2018			
9/26/2018	0.07 (J)	<0.3	<0.3
9/27/2018			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 3:14 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWC-23S
6/2/2016	7.67	6.36	5.75						
6/6/2016				5.71	6.17				
6/7/2016						5.77	6.1	5.62	5.57
6/8/2016									
6/28/2016									
7/26/2016	7.66	6.22	5.72						
7/27/2016				5.46	6.14	5.79		5.59	
7/28/2016							6.12		5.6
8/1/2016									
9/2/2016									
9/14/2016	7.6	6.23	5.74						
9/16/2016								5.58	
9/19/2016				5.59	6.04	5.73	6.12		
9/20/2016									5.53
9/21/2016									
11/2/2016	7.35	6.08				5.67			
11/3/2016				5.39	5.97		6.07	5.59	
11/4/2016			5.61						
11/8/2016									5.53
11/10/2016									
11/14/2016									
1/11/2017				5.48	6.05			5.59	
1/12/2017	7.49		5.71						
1/13/2017		6.19				5.79	6.41		
1/16/2017									5.59
1/17/2017									
2/28/2017									
3/1/2017				5.41	5.94				
3/2/2017								5.54	
3/6/2017		6.2				5.63	6.34		
3/7/2017	7.43		5.66						
3/8/2017									
3/9/2017									5.56
4/26/2017				5.4	5.99	5.66	6.32		
5/1/2017	7.22	6.21							
5/2/2017			5.65					5.47	5.61
5/3/2017									
5/9/2017									
6/27/2017	7.32		5.7						
6/28/2017				5.36	6				
6/29/2017		6.21				5.85	6.47	5.56	
7/7/2017									
7/10/2017									5.68
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017	7.48		5.79				6.56		
10/4/2017				5.32		5.83		5.57	
10/5/2017		6.16			6.11				
10/6/2017									
10/11/2017									5.46
6/5/2018							6.09		

Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	5.07	5.65	
6/28/2016	4.87		
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	4.62	5.47	
9/2/2016			5.84
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		5.61	
9/21/2016	4.63		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	4.58	5.55	
11/10/2016	4.42		
11/14/2016	4.35		6.28
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	4.16	5.53	
2/28/2017			5.99
3/1/2017	4.17		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		5.62	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		5.46	
5/3/2017	4.19		
5/9/2017			6.3
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		5.81	
7/10/2017	4.02		
7/13/2017			5.57
9/22/2017			5.5
9/29/2017			5.58
10/3/2017			
10/4/2017			
10/5/2017		5.45	
10/6/2017			5.51
10/11/2017	4.01		5.47
6/5/2018			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/6/2018			
6/7/2018			
6/11/2018			
6/12/2018	4.03	5.64	
6/13/2018			5.5
9/25/2018			
9/26/2018	3.97	5.61	5.53
9/27/2018			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-21I (bg)
6/2/2016	8	1.9	20						
6/6/2016				1.8	1.2				
6/7/2016						4.4	<1	56	5.2
6/8/2016									
7/26/2016	7.7	1.8	20						
7/27/2016				1.9	1.7	4.7	0.08 (J)		
7/28/2016								57	5.1
8/1/2016									
9/2/2016									
9/14/2016	7.5	1.8	19						
9/16/2016				1.7		4.8			
9/19/2016					1.8		0.08 (J)		4.8
9/20/2016								68	
9/21/2016									
11/2/2016	8.2		20				0.1 (J)		
11/3/2016				1.9	0.69 (J)	5.3			5
11/4/2016		2							
11/8/2016								79	
11/14/2016									
1/11/2017				1.7	<1 (*)	5.2			
1/12/2017		1.9	19						
1/13/2017	8.1						<1 (*)		4.3
1/16/2017								72	
1/17/2017									
2/28/2017									
3/1/2017				<1 (*)	1.8				
3/2/2017						5			
3/6/2017	8						<1		4.5
3/7/2017		2.1	20						
3/8/2017									
3/9/2017								69	
4/26/2017				1.9	1.6		<1		4.9
5/1/2017	8.4		20						
5/2/2017		2				5		60	
5/3/2017									
5/9/2017									
6/27/2017		2.1	18						
6/28/2017				<1 (*)	<1 (*)				
6/29/2017	9.2					5.2	<1 (*)		5.5
7/7/2017									
7/10/2017								57	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		2.3	16						5.8
10/4/2017				1.7		5.3	<1 (*)		
10/5/2017	9.6				1.6				
10/6/2017									
10/11/2017								52	
6/5/2018									6.1
6/6/2018			8.3				0.049 (J)		
6/7/2018	8.5	2			0.68 (J)				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	910	<1	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	830	1.1	
9/2/2016			72
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		0.38 (J)	
9/21/2016	840		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016		0.39 (J)	
11/14/2016	750		110
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	790	<1 (*)	
2/28/2017			110
3/1/2017	850		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		0.29 (J)	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		0.29 (J)	
5/3/2017	800		
5/9/2017			130
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		0.37 (J)	
7/10/2017	810		
7/13/2017			140
9/22/2017			160
9/29/2017			160
10/3/2017			
10/4/2017			
10/5/2017		<1 (*)	
10/6/2017			160
10/11/2017	730		150
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/11/2018			
6/12/2018	759	0.35 (J)	
6/13/2018			144
9/25/2018			
9/26/2018	895	0.28 (J)	160
9/27/2018			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-21I (bg)
6/2/2016	96	66	160						
6/6/2016				58	120				
6/7/2016						28	38	130	60
6/8/2016									
7/26/2016	92	78	177						
7/27/2016				35	94	74	74		
7/28/2016								119	81
8/1/2016									
9/2/2016									
9/14/2016	102	73	187						
9/16/2016				35		67			
9/19/2016					92		45		68
9/20/2016								132	
9/21/2016									
11/2/2016	115		181				53		
11/3/2016				48	104	41			61
11/4/2016		75							
11/8/2016								146	
11/14/2016									
1/11/2017				95	133	104			
1/12/2017		86	202						
1/13/2017	67						46		76
1/16/2017								194	
1/17/2017									
2/28/2017									
3/1/2017				79	119				
3/2/2017						77			
3/6/2017	159						164		167
3/7/2017		108	257						
3/8/2017									
3/9/2017								288	
4/26/2017				36	162		34		50
5/1/2017	107		165						
5/2/2017		103				142		221	
5/3/2017									
5/9/2017									
6/27/2017		73	189						
6/28/2017				45	98				
6/29/2017	79					53	68		94
7/7/2017									
7/10/2017								123	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		89	170						149
10/4/2017				45		61	54		
10/5/2017	95				104				
10/6/2017									
10/11/2017								100	
6/5/2018									109
6/6/2018			151				79		
6/7/2018	90	142			68				

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	1200	66	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	1300	56	
9/2/2016			243
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		53	
9/21/2016	1220		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016		58	
11/14/2016	1170		272
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	1150	56	
2/28/2017			306
3/1/2017	1160		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		192	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		113	
5/3/2017	1280		
5/9/2017			303
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		46	
7/10/2017	1170		
7/13/2017			282
9/22/2017			309
9/29/2017			273
10/3/2017			
10/4/2017			
10/5/2017		48	
10/6/2017			287
10/11/2017	1110		264
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 3:14 PM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-24S	YGWC-36
6/11/2018			
6/12/2018	1150	79	
6/13/2018			292
9/25/2018			
9/26/2018	1280	59	277
9/27/2018			

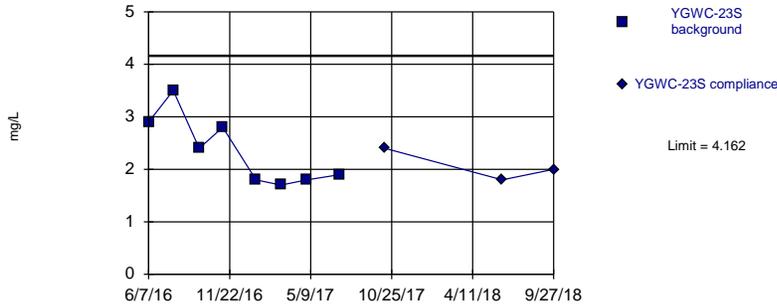
Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B` Printed 1/23/2019, 4:00 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Chloride (mg/L)	YGWC-23S	4.162	n/a	9/27/2018	2	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	YGWC-24S	6.633	n/a	9/26/2018	6.9	Yes	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	YGWC-33S	8.023	n/a	9/26/2018	4.7	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	YGWC-36	7.918	n/a	9/26/2018	6	No	7	0	No	0.001504	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

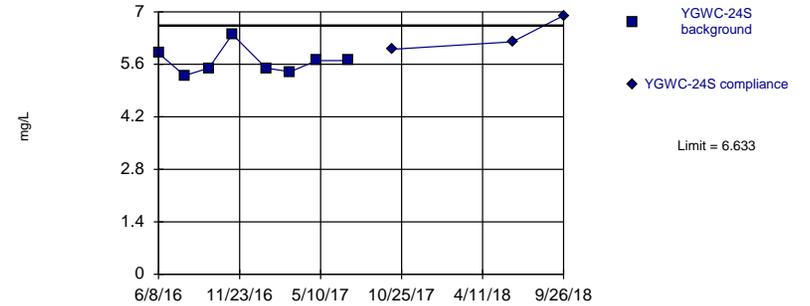


Background Data Summary: Mean=2.35, Std. Dev.=0.6612, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8787, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:59 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Exceeds Limit

Prediction Limit
Intrawell Parametric

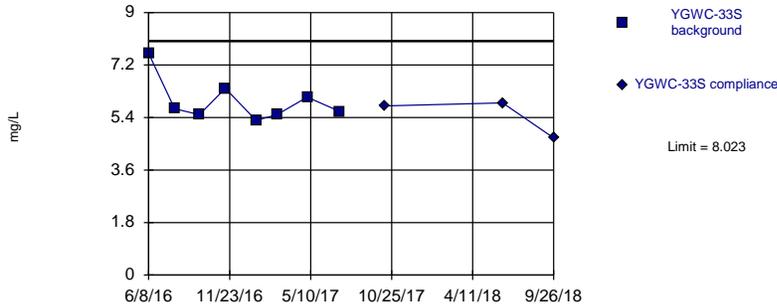


Background Data Summary: Mean=5.675, Std. Dev.=0.3495, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8853, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:59 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Within Limit

Prediction Limit
Intrawell Parametric

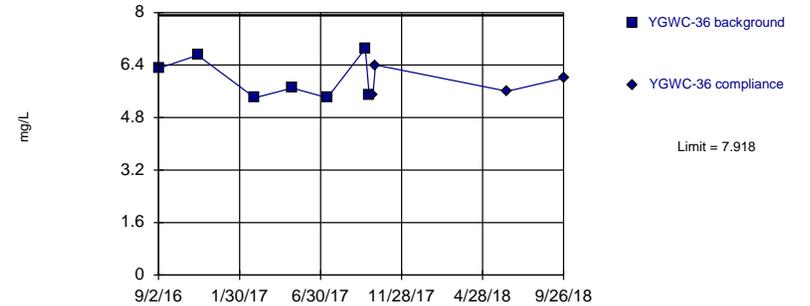


Background Data Summary: Mean=5.963, Std. Dev.=0.752, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8066, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:59 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=5.986, Std. Dev.=0.6388, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8481, critical = 0.73. Kappa = 3.024 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 1/23/2019 3:59 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 4:00 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-23S
6/7/2016	2.9	
7/28/2016	3.5	
9/20/2016	2.4	
11/8/2016	2.8	
1/16/2017	1.8	
3/9/2017	1.7	
5/2/2017	1.8	
7/10/2017	1.9	
10/11/2017		2.4
6/12/2018		1.8
9/27/2018		2

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 4:00 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-24S	YGWC-24S
6/8/2016	5.9	
8/1/2016	5.3	
9/20/2016	5.5	
11/8/2016	6.4	
1/17/2017	5.5	
3/8/2017	5.4	
5/2/2017	5.7	
7/7/2017	5.7	
10/5/2017		6
6/12/2018		6.2
9/26/2018		6.9

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 4:00 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-33S	YGWC-33S
6/8/2016	7.6	
8/1/2016	5.7	
9/21/2016	5.5	
11/14/2016	6.4	
1/17/2017	5.3	
3/1/2017	5.5	
5/3/2017	6.1	
7/10/2017	5.6	
10/11/2017		5.8
6/12/2018		5.9
9/26/2018		4.7

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/23/2019 4:00 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-36	YGWC-36
9/2/2016	6.3	
11/14/2016	6.7	
2/28/2017	5.4	
5/9/2017	5.7	
7/13/2017	5.4	
9/22/2017	6.9	
9/29/2017	5.5	
10/6/2017		5.5
10/11/2017		6.4
6/13/2018		5.6
9/26/2018		6

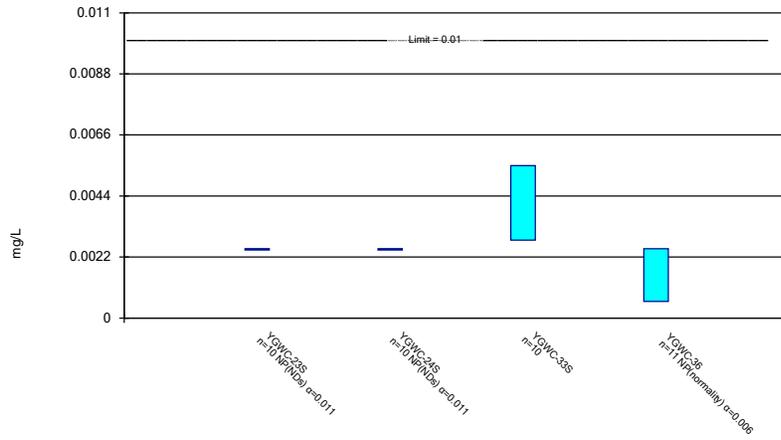
Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B` Printed 1/11/2019, 2:49 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	YGWC-23S	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.005493	0.002807	0.01	No	10	0.00415	0.001505	10	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.0025	0.0006	0.01	No	11	0.001987	0.0008783	72.73	No	0.006	NP (normality)
Barium (mg/L)	YGWC-23S	0.0532	0.03062	2	No	10	0.04191	0.01265	0	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01985	0.01865	2	No	10	0.01925	0.000677	0	No	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01715	0.01068	2	No	10	0.01391	0.003625	10	No	0.01	Param.
Barium (mg/L)	YGWC-36	0.04897	0.03359	2	No	11	0.04068	0.01092	0	x^2	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.0015	0.000081	0.004	No	10	0.0006561	0.0007263	40	No	0.011	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.0015	0.0001	0.004	No	10	0.000386	0.0005873	20	No	0.011	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.018	0.0142	0.004	Yes	10	0.01616	0.002964	0	No	0.011	NP (normality)
Beryllium (mg/L)	YGWC-36	0.00035	0.00009	0.004	No	11	0.0003691	0.0003853	9.091	No	0.006	NP (normality)
Cadmium (mg/L)	YGWC-23S	0.0005	0.00007	0.005	No	10	0.000457	0.000136	90	No	0.011	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.0005	0.0005	0.005	No	10	0.0005	0	100	No	0.011	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003168	0.002216	0.005	No	10	0.00267	0.0006201	0	x^2	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0005	0.00009	0.005	No	11	0.0002327	0.0001381	18.18	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.005	0.013	No	10	0.005	0	100	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-24S	0.005	0.005	0.013	No	10	0.005	0	100	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02248	0.01092	0.013	No	10	0.0167	0.006474	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	11	0.0046	0.001327	90.91	No	0.006	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	1.03	0.1754	6.92	No	10	0.6025	0.4787	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.796	0.333	6.92	No	10	0.5645	0.2595	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.626	0.5675	6.92	No	10	1.097	0.593	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.141	0.4021	6.92	No	11	0.7716	0.4434	0	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.15	0.03	4	No	11	0.1391	0.03618	90.91	No	0.006	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.15	0.15	4	No	11	0.15	0	100	No	0.006	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5408	0.1297	4	No	11	0.3573	0.3697	9.091	x^(1/3)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.18	0.05	4	No	12	0.1224	0.05121	58.33	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-23S	0.0025	0.0017	0.04	No	10	0.00221	0.0006557	0	No	0.011	NP (normality)
Lithium (mg/L)	YGWC-24S	0.025	0.025	0.04	No	10	0.025	0	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.0276	0.01752	0.04	No	10	0.02256	0.00565	0	No	0.01	Param.
Lithium (mg/L)	YGWC-36	0.006707	0.00474	0.04	No	11	0.005664	0.001346	0	x^2	0.01	Param.
Selenium (mg/L)	YGWC-23S	0.04695	0.02959	0.05	No	10	0.03827	0.009731	0	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.005	0.005	0.05	No	10	0.005	0	100	No	0.011	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.0161	0.008202	0.05	No	10	0.01215	0.004425	10	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.008982	0.001151	0.05	No	11	0.003027	0.001435	27.27	No	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

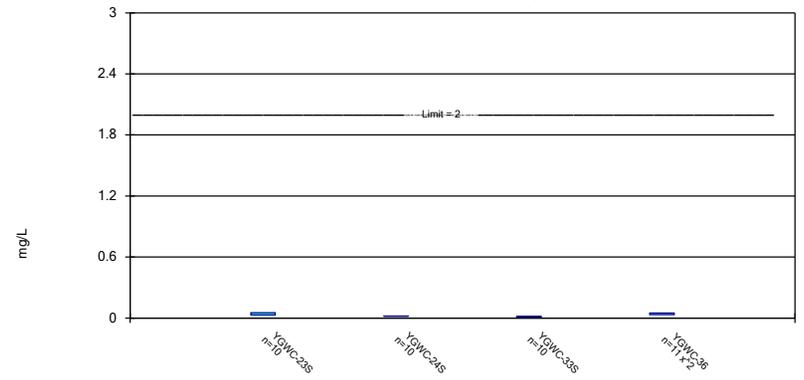
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

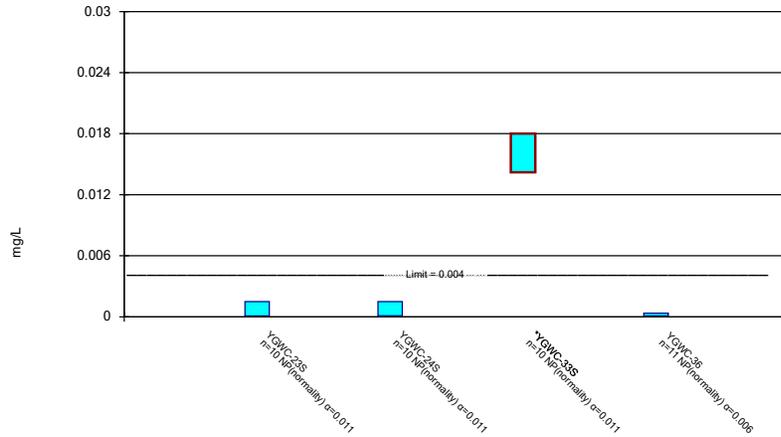
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Non-Parametric Confidence Interval

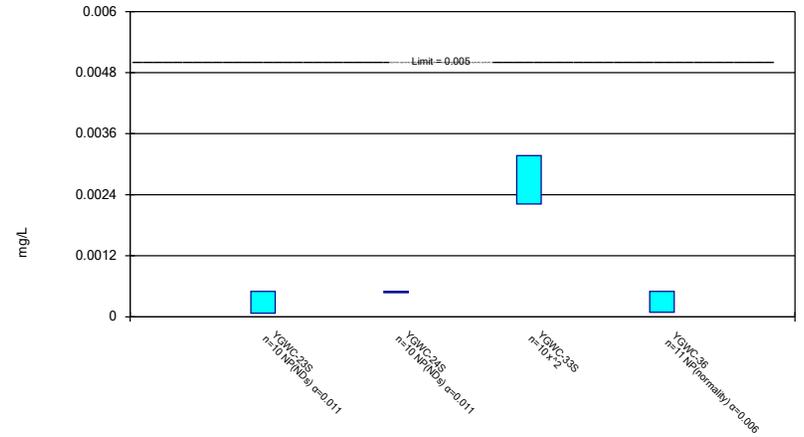
Compliance limit is exceeded.*



Constituent: Beryllium Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

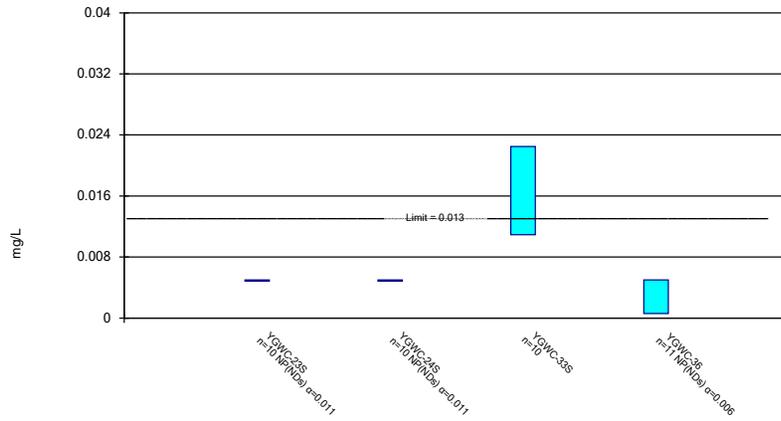
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

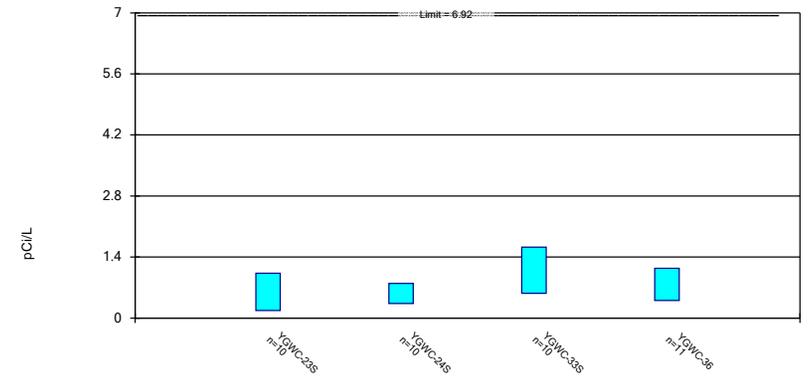
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

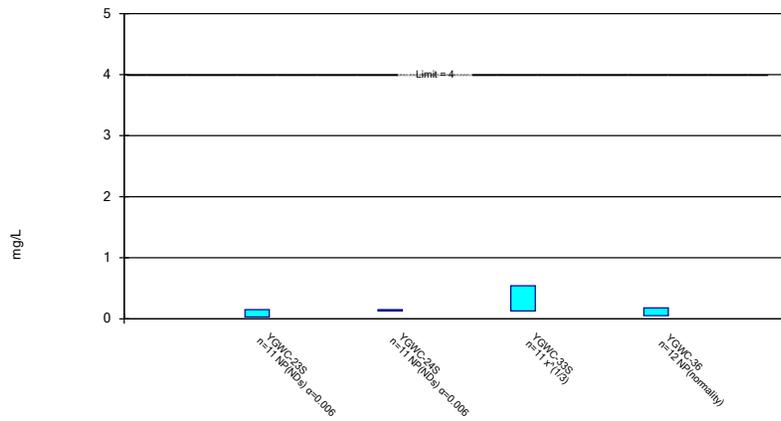
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

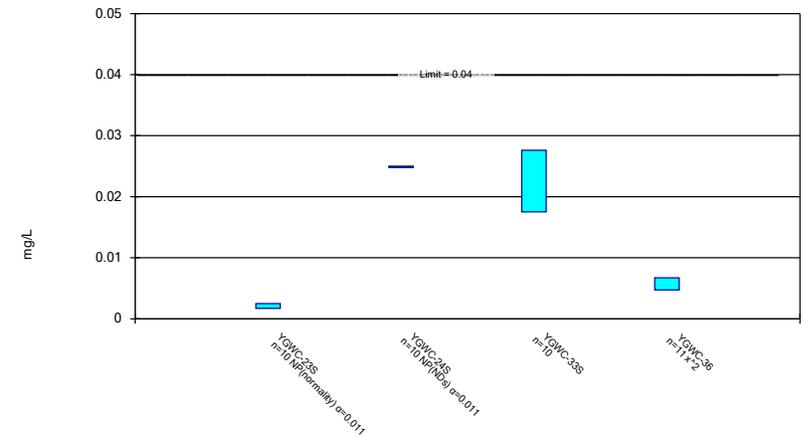
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

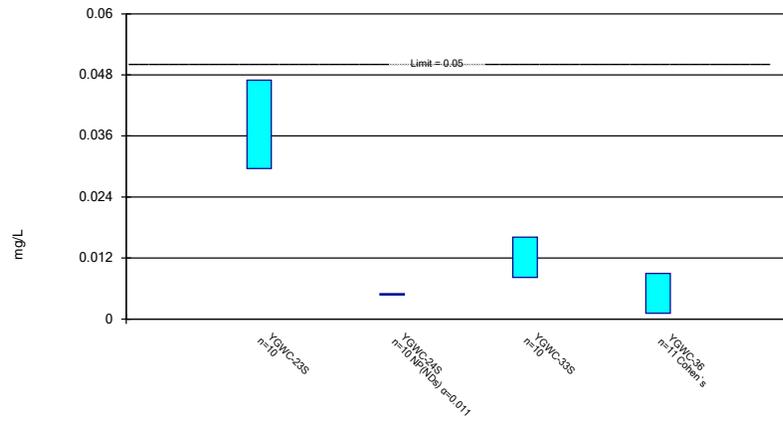
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/11/2019 2:48 PM View: Confidence Interval
Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 1/11/2019 2:48 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.005			
8/1/2016		<0.005	0.007	
9/2/2016				<0.005
9/20/2016	<0.005	<0.005		
9/21/2016			0.0054	
11/8/2016	<0.005	<0.005		
11/14/2016			<0.005	<0.005
1/16/2017	<0.005			
1/17/2017		<0.005	0.0027 (J)	
2/28/2017				0.0006 (J)
3/1/2017			0.0041 (J)	
3/8/2017		<0.005		
3/9/2017	<0.005			
5/2/2017	<0.005 (*)	<0.005 (*)		
5/3/2017			0.0037 (J)	
5/9/2017				0.0006 (J)
7/7/2017		<0.005		
7/10/2017	<0.005		0.0044 (J)	
7/13/2017				<0.005
9/22/2017				<0.005
9/29/2017				<0.005
10/6/2017				<0.005
3/30/2018	<0.005	<0.005	0.0049 (J)	<0.005
6/12/2018	<0.005	<0.005	0.002 (J)	
6/13/2018				0.00066 (J)
9/26/2018		<0.005	0.0048 (J)	<0.005
9/27/2018	<0.005			
Mean	0.0025	0.0025	0.00415	0.001987
Std. Dev.	0	0	0.001505	0.0008783
Upper Lim.	0.0025	0.0025	0.005493	0.0025
Lower Lim.	0.0025	0.0025	0.002807	0.0006

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0511			
8/1/2016		0.02	0.02	
9/2/2016				0.0409
9/20/2016	0.0561	0.0203		
9/21/2016			0.0183	
11/8/2016	0.054	0.0191		
11/14/2016			0.0149	0.0182
1/16/2017	0.0528			
1/17/2017		0.0192	<0.0139 (*)	
2/28/2017				0.023
3/1/2017			0.0142	
3/8/2017		0.0189		
3/9/2017	0.0469			
5/2/2017	0.0427	0.019		
5/3/2017			0.0151	
5/9/2017				0.0349
7/7/2017		0.019		
7/10/2017	0.0395		0.0137	
7/13/2017				0.0484
9/22/2017				0.0491
9/29/2017				0.0452
10/6/2017				0.0508
3/30/2018	0.03	0.02	0.012	0.043
6/12/2018	0.024	0.018	0.012	
6/13/2018				0.046
9/26/2018		0.019	0.012	0.048
9/27/2018	0.022			
Mean	0.04191	0.01925	0.01391	0.04068
Std. Dev.	0.01265	0.000677	0.003625	0.01092
Upper Lim.	0.0532	0.01985	0.01715	0.04897
Lower Lim.	0.03062	0.01865	0.01068	0.03359

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.003			
8/1/2016		0.0001 (J)	0.0146	
9/2/2016				0.0003 (J)
9/20/2016	0.0001 (J)	0.0001 (J)		
9/21/2016			0.0149	
11/8/2016	<0.003 (*)	<0.003 (*)		
11/14/2016			0.0152	9E-05 (J)
1/16/2017	0.0001 (J)			
1/17/2017		0.0001 (J)	0.0142	
2/28/2017				0.0001 (J)
3/1/2017			0.015	
3/8/2017		0.0001 (J)		
3/9/2017	0.0001 (J)			
5/2/2017	9E-05 (J)	0.0001 (J)		
5/3/2017			0.0154	
5/9/2017				0.0002 (J)
7/7/2017		0.0001 (J)		
7/10/2017	<0.003		0.0143	
7/13/2017				0.0003 (J)
9/22/2017				0.0003 (J)
9/29/2017				0.0003 (J)
10/6/2017				0.0003 (J)
3/30/2018	<0.003	<0.003	0.018	<0.003
6/12/2018	8.1E-05 (J)	0.00012 (J)	0.016	
6/13/2018				0.00035 (J)
9/26/2018		0.00014 (J)	0.024	0.00032 (J)
9/27/2018	9E-05 (J)			
Mean	0.0006561	0.000386	0.01616	0.0003691
Std. Dev.	0.0007263	0.0005873	0.002964	0.0003853
Upper Lim.	0.0015	0.0015	0.018	0.00035
Lower Lim.	8.1E-05	0.0001	0.0142	9E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.001			
8/1/2016		<0.001	0.0014	
9/2/2016				<0.001
9/20/2016	<0.001	<0.001		
9/21/2016			0.0017	
11/8/2016	7E-05 (J)	<0.001		
11/14/2016			0.0027	9E-05 (J)
1/16/2017	<0.001			
1/17/2017		<0.001	0.0033	
2/28/2017				0.0001 (J)
3/1/2017			0.0031	
3/8/2017		<0.001		
3/9/2017	<0.001			
5/2/2017	<0.001	<0.001		
5/3/2017			0.0031	
5/9/2017				0.0002 (J)
7/7/2017		<0.001		
7/10/2017	<0.001		0.0029	
7/13/2017				0.0002 (J)
9/22/2017				0.0002 (J)
9/29/2017				0.0002 (J)
10/6/2017				0.0002 (J)
3/30/2018	<0.001	<0.001	0.0028	<0.001
6/12/2018	<0.001	<0.001	0.0029	
6/13/2018				0.00019 (J)
9/26/2018		<0.001	0.0028	0.00018 (J)
9/27/2018	<0.001			
Mean	0.000457	0.0005	0.00267	0.0002327
Std. Dev.	0.000136	0	0.0006201	0.0001381
Upper Lim.	0.0005	0.0005	0.003168	0.0005
Lower Lim.	7E-05	0.0005	0.002216	9E-05

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.01			
8/1/2016		<0.01	0.0297	
9/2/2016				0.0006 (J)
9/20/2016	<0.01	<0.01		
9/21/2016			0.0237	
11/8/2016	<0.01	<0.01		
11/14/2016			0.0144	<0.01
1/16/2017	<0.01			
1/17/2017		<0.01	0.0095 (J)	
2/28/2017				<0.01
3/1/2017			0.0125	
3/8/2017		<0.01		
3/9/2017	<0.01			
5/2/2017	<0.01	<0.01		
5/3/2017			0.0151	
5/9/2017				<0.01
7/7/2017		<0.01		
7/10/2017	<0.01		0.0121	
7/13/2017				<0.01
9/22/2017				<0.01
9/29/2017				<0.01
10/6/2017				<0.01
3/30/2018	<0.01	<0.01	0.013	<0.01
6/12/2018	<0.01	<0.01	0.014	
6/13/2018				<0.01
9/26/2018		<0.01	0.023	<0.01
9/27/2018	<0.01			
Mean	0.005	0.005	0.0167	0.0046
Std. Dev.	0	0	0.006474	0.001327
Upper Lim.	0.005	0.005	0.02248	0.005
Lower Lim.	0.005	0.005	0.01092	0.0006

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.386 (U)			
8/1/2016		0.467 (U)	1.55	
9/2/2016				0.873 (U)
9/20/2016	1.47	0.853 (U)		
9/21/2016			2.36	
9/22/2016				0.667 (U)
9/29/2016				1.63
10/6/2016				0.641 (U)
11/8/2016	0.22 (U)	0.433 (U)		
11/14/2016			0.851 (U)	0.0451 (U)
1/16/2017	0.147 (U)			
1/17/2017		0.0759 (U)	1.41 (U)	
2/28/2017				1.34 (U)
3/1/2017			1.13	
3/8/2017		0.479 (U)		
3/9/2017	0.0892 (U)			
5/2/2017	0.149 (U)	0.506 (U)		
5/3/2017			0.584 (U)	
5/9/2017				0.309 (U)
7/7/2017		0.713 (U)		
7/10/2017	0.815 (U)		0.46 (U)	
7/13/2017				0.618 (U)
3/30/2018	0.659 (U)	0.409 (U)	0.607 (U)	0.721 (U)
6/12/2018	1.03 (U)	0.728 (U)	0.633 (U)	
6/13/2018				1.04 (U)
9/26/2018		0.981	1.38	0.604 (U)
9/27/2018	1.06 (U)			
Mean	0.6025	0.5645	1.097	0.7716
Std. Dev.	0.4787	0.2595	0.593	0.4434
Upper Lim.	1.03	0.796	1.626	1.141
Lower Lim.	0.1754	0.333	0.5675	0.4021

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.03 (J)			
8/1/2016		<0.3	0.24 (J)	
9/2/2016				0.05 (J)
9/20/2016	<0.3	<0.3		
9/21/2016			0.22 (J)	
11/8/2016	<0.3	<0.3 (*)		
11/14/2016			0.35	0.18 (J)
1/16/2017	<0.3			
1/17/2017		<0.3	0.22 (J)	
2/28/2017				0.09 (J)
3/1/2017			0.33	
3/8/2017		<0.3 (*)		
3/9/2017	<0.3 (*)			
5/2/2017	<0.3	<0.3		
5/3/2017			0.2 (J)	
5/9/2017				0.009 (J)
7/7/2017		<0.3		
7/10/2017	<0.3 (*)		0.57	
7/13/2017				<0.3
9/22/2017				0.09 (J)
9/29/2017				<0.3
10/5/2017		<0.3		
10/6/2017				<0.3
10/11/2017	<0.3		<0.3 (*)	<0.3 (*)
3/30/2018	<0.3	<0.3	1.4	<0.3
6/12/2018	<0.3	<0.3	0.18 (J)	
6/13/2018				<0.3
9/26/2018		<0.3	0.07 (J)	<0.3
9/27/2018	<0.3			
Mean	0.1391	0.15	0.3573	0.1224
Std. Dev.	0.03618	0	0.3697	0.05121
Upper Lim.	0.15	0.15	0.5408	0.18
Lower Lim.	0.03	0.15	0.1297	0.05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0019 (J)			
8/1/2016		<0.05	0.0142 (J)	
9/2/2016				0.0029 (J)
9/20/2016	0.0021 (J)	<0.05		
9/21/2016			0.0145 (J)	
11/8/2016	0.0024 (J)	<0.05		
11/14/2016			0.0253 (J)	0.0044 (J)
1/16/2017	0.0022 (J)			
1/17/2017		<0.05	0.0256 (J)	
2/28/2017				0.0038 (J)
3/1/2017			0.0219 (J)	
3/8/2017		<0.05		
3/9/2017	0.0025 (J)			
5/2/2017	0.0019 (J)	<0.05		
5/3/2017			0.0217 (J)	
5/9/2017				0.0057 (J)
7/7/2017		<0.05		
7/10/2017	0.0018 (J)		0.0214 (J)	
7/13/2017				0.007 (J)
9/22/2017				0.0067 (J)
9/29/2017				0.0064 (J)
10/6/2017				0.0065 (J)
3/30/2018	0.0039 (J)	<0.05	0.024 (J)	0.0061 (J)
6/12/2018	0.0017 (J)	<0.05	0.023 (J)	
6/13/2018				0.0065 (J)
9/26/2018		<0.05	0.034 (J)	0.0063 (J)
9/27/2018	0.0017 (J)			
Mean	0.00221	0.025	0.02256	0.005664
Std. Dev.	0.0006557	0	0.00565	0.001346
Upper Lim.	0.0025	0.025	0.0276	0.006707
Lower Lim.	0.0017	0.025	0.01752	0.00474

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 1/11/2019 2:49 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0385			
8/1/2016		<0.01	0.0192	
9/2/2016				0.0012 (J)
9/20/2016	0.0464	<0.01		
9/21/2016			0.0147	
11/8/2016	0.0521	<0.01		
11/14/2016			<0.01	<0.01
1/16/2017	0.0469			
1/17/2017		<0.01	0.0122	
2/28/2017				0.0017 (J)
3/1/2017			0.0151	
3/8/2017		<0.01		
3/9/2017	0.0437			
5/2/2017	0.0395	<0.01		
5/3/2017			0.012	
5/9/2017				0.0018 (J)
7/7/2017		<0.01		
7/10/2017	0.0386		0.0106	
7/13/2017				0.0031 (J)
9/22/2017				0.0024 (J)
9/29/2017				0.002 (J)
10/6/2017				<0.01
3/30/2018	0.028	<0.01	0.011	<0.01
6/12/2018	0.026	<0.01	0.0057 (J)	
6/13/2018				0.0024 (J)
9/26/2018		<0.01	0.016	0.0037 (J)
9/27/2018	0.023			
Mean	0.03827	0.005	0.01215	0.003027
Std. Dev.	0.009731	0	0.004425	0.001435
Upper Lim.	0.04695	0.005	0.0161	0.008982
Lower Lim.	0.02959	0.005	0.008202	0.001151

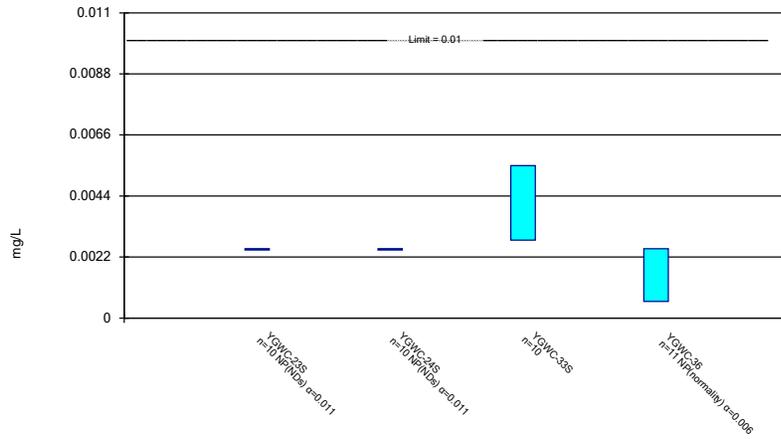
Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B` Printed 1/10/2019, 5:58 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	YGWC-23S	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.005493	0.002807	0.01	No	10	0.00415	0.001505	10	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.0025	0.0006	0.01	No	11	0.001987	0.0008783	72.73	No	0.006	NP (normality)
Barium (mg/L)	YGWC-23S	0.0532	0.03062	2	No	10	0.04191	0.01265	0	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01985	0.01865	2	No	10	0.01925	0.000677	0	No	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01715	0.01068	2	No	10	0.01391	0.003625	10	No	0.01	Param.
Barium (mg/L)	YGWC-36	0.04897	0.03359	2	No	11	0.04068	0.01092	0	x^2	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.0015	0.000081	0.004	No	10	0.0006561	0.0007263	40	No	0.011	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.0015	0.0001	0.004	No	10	0.000386	0.0005873	20	No	0.011	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.018	0.0142	0.004	Yes	10	0.01616	0.002964	0	No	0.011	NP (normality)
Beryllium (mg/L)	YGWC-36	0.00035	0.00009	0.004	No	11	0.0003691	0.0003853	9.091	No	0.006	NP (normality)
Cadmium (mg/L)	YGWC-23S	0.0005	0.00007	0.005	No	10	0.000457	0.000136	90	No	0.011	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.0005	0.0005	0.005	No	10	0.0005	0	100	No	0.011	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003168	0.002216	0.005	No	10	0.00267	0.0006201	0	x^2	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0005	0.00009	0.005	No	11	0.0002327	0.0001381	18.18	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.005	0.013	No	10	0.005	0	100	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-24S	0.005	0.005	0.013	No	10	0.005	0	100	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02248	0.01092	0.013	No	10	0.0167	0.006474	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	11	0.0046	0.001327	90.91	No	0.006	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	1.03	0.1754	6.92	No	10	0.6025	0.4787	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.796	0.333	6.92	No	10	0.5645	0.2595	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.626	0.5675	6.92	No	10	1.097	0.593	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.141	0.4021	6.92	No	11	0.7716	0.4434	0	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.15	0.03	4	No	11	0.1391	0.03618	90.91	No	0.006	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.15	0.15	4	No	11	0.15	0	100	No	0.006	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5408	0.1297	4	No	11	0.3573	0.3697	9.091	x^(1/3)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.18	0.05	4	No	12	0.1224	0.05121	58.33	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-23S	0.0025	0.0017	0.025	No	10	0.00221	0.0006557	0	No	0.011	NP (normality)
Lithium (mg/L)	YGWC-24S	0.025	0.025	0.025	No	10	0.025	0	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.0276	0.01752	0.025	No	10	0.02256	0.00565	0	No	0.01	Param.
Lithium (mg/L)	YGWC-36	0.006707	0.00474	0.025	No	11	0.005664	0.001346	0	x^2	0.01	Param.
Selenium (mg/L)	YGWC-23S	0.04695	0.02959	0.05	No	10	0.03827	0.009731	0	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.005	0.005	0.05	No	10	0.005	0	100	No	0.011	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.0161	0.008202	0.05	No	10	0.01215	0.004425	10	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.008982	0.001151	0.05	No	11	0.003027	0.001435	27.27	No	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

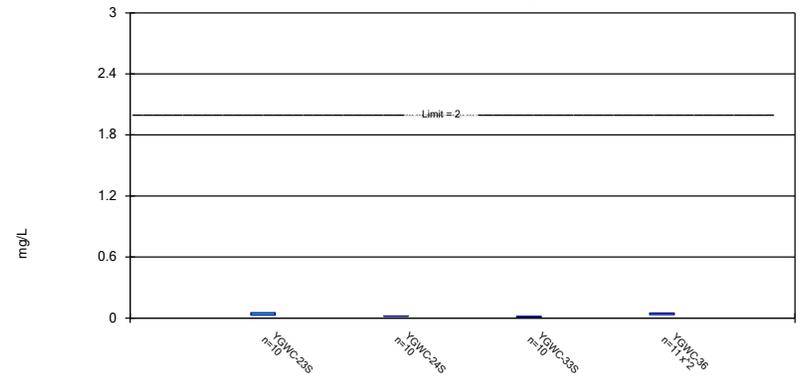
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

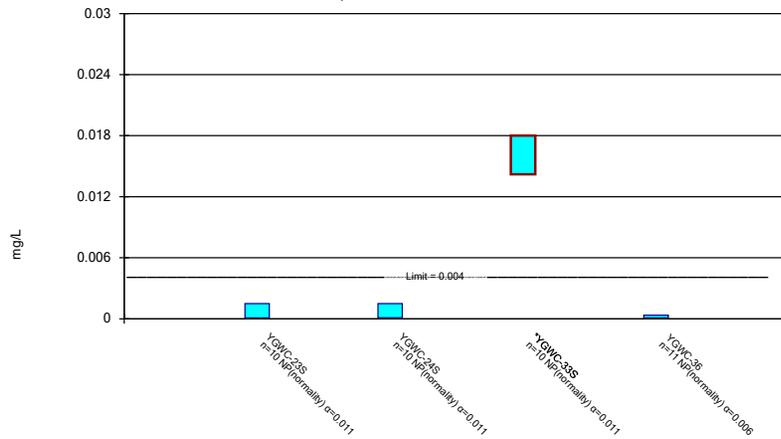
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Non-Parametric Confidence Interval

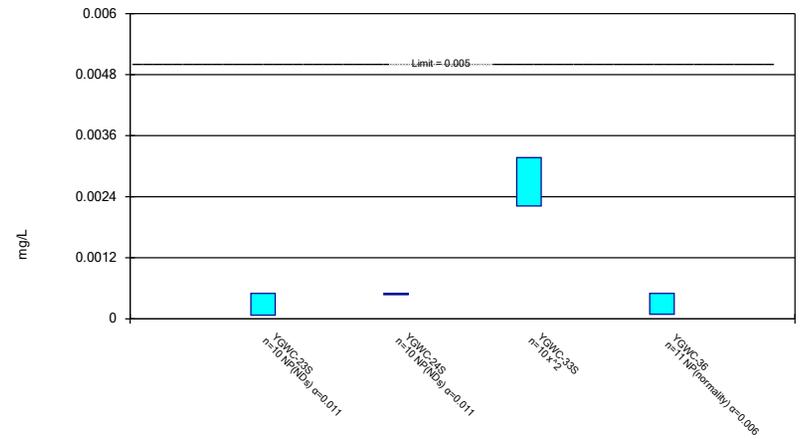
Compliance limit is exceeded.*



Constituent: Beryllium Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

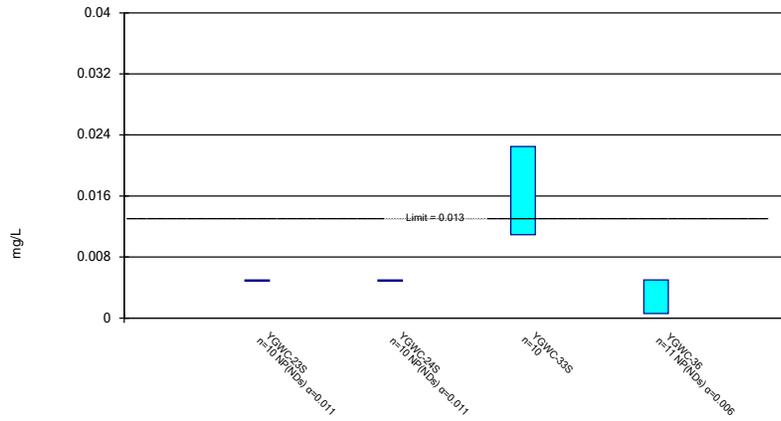
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

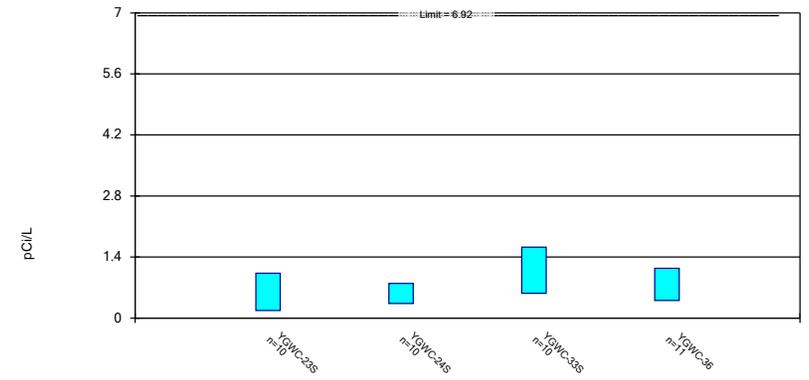
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric Confidence Interval

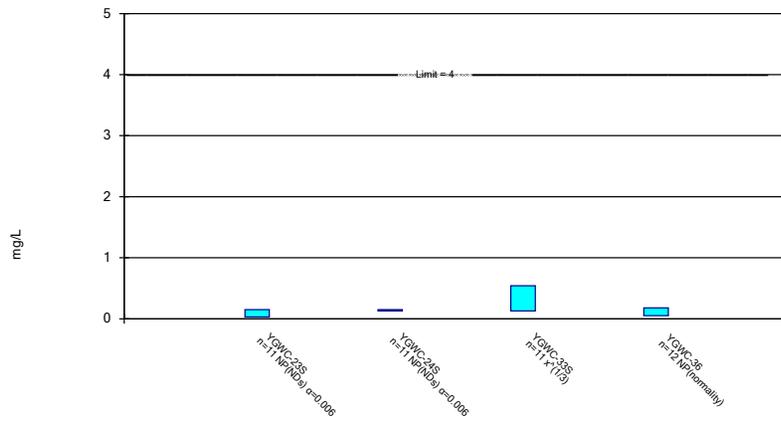
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

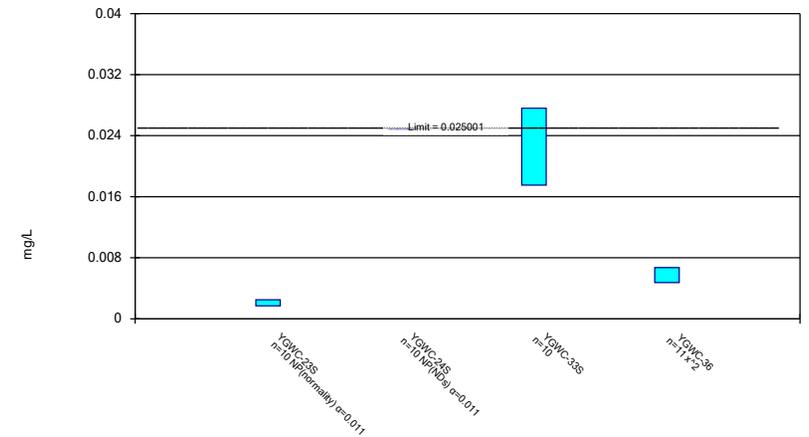
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

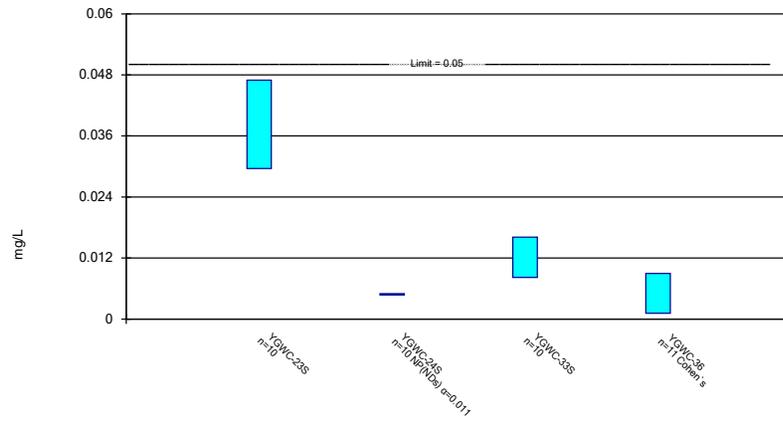
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/10/2019 5:56 PM View: Confidence Interval
 Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 1/10/2019 5:56 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.005			
8/1/2016		<0.005	0.007	
9/2/2016				<0.005
9/20/2016	<0.005	<0.005		
9/21/2016			0.0054	
11/8/2016	<0.005	<0.005		
11/14/2016			<0.005	<0.005
1/16/2017	<0.005			
1/17/2017		<0.005	0.0027 (J)	
2/28/2017				0.0006 (J)
3/1/2017			0.0041 (J)	
3/8/2017		<0.005		
3/9/2017	<0.005			
5/2/2017	<0.005 (*)	<0.005 (*)		
5/3/2017			0.0037 (J)	
5/9/2017				0.0006 (J)
7/7/2017		<0.005		
7/10/2017	<0.005		0.0044 (J)	
7/13/2017				<0.005
9/22/2017				<0.005
9/29/2017				<0.005
10/6/2017				<0.005
3/30/2018	<0.005	<0.005	0.0049 (J)	<0.005
6/12/2018	<0.005	<0.005	0.002 (J)	
6/13/2018				0.00066 (J)
9/26/2018		<0.005	0.0048 (J)	<0.005
9/27/2018	<0.005			
Mean	0.0025	0.0025	0.00415	0.001987
Std. Dev.	0	0	0.001505	0.0008783
Upper Lim.	0.0025	0.0025	0.005493	0.0025
Lower Lim.	0.0025	0.0025	0.002807	0.0006

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0511			
8/1/2016		0.02	0.02	
9/2/2016				0.0409
9/20/2016	0.0561	0.0203		
9/21/2016			0.0183	
11/8/2016	0.054	0.0191		
11/14/2016			0.0149	0.0182
1/16/2017	0.0528			
1/17/2017		0.0192	<0.0139 (*)	
2/28/2017				0.023
3/1/2017			0.0142	
3/8/2017		0.0189		
3/9/2017	0.0469			
5/2/2017	0.0427	0.019		
5/3/2017			0.0151	
5/9/2017				0.0349
7/7/2017		0.019		
7/10/2017	0.0395		0.0137	
7/13/2017				0.0484
9/22/2017				0.0491
9/29/2017				0.0452
10/6/2017				0.0508
3/30/2018	0.03	0.02	0.012	0.043
6/12/2018	0.024	0.018	0.012	
6/13/2018				0.046
9/26/2018		0.019	0.012	0.048
9/27/2018	0.022			
Mean	0.04191	0.01925	0.01391	0.04068
Std. Dev.	0.01265	0.000677	0.003625	0.01092
Upper Lim.	0.0532	0.01985	0.01715	0.04897
Lower Lim.	0.03062	0.01865	0.01068	0.03359

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.003			
8/1/2016		0.0001 (J)	0.0146	
9/2/2016				0.0003 (J)
9/20/2016	0.0001 (J)	0.0001 (J)		
9/21/2016			0.0149	
11/8/2016	<0.003 (*)	<0.003 (*)		
11/14/2016			0.0152	9E-05 (J)
1/16/2017	0.0001 (J)			
1/17/2017		0.0001 (J)	0.0142	
2/28/2017				0.0001 (J)
3/1/2017			0.015	
3/8/2017		0.0001 (J)		
3/9/2017	0.0001 (J)			
5/2/2017	9E-05 (J)	0.0001 (J)		
5/3/2017			0.0154	
5/9/2017				0.0002 (J)
7/7/2017		0.0001 (J)		
7/10/2017	<0.003		0.0143	
7/13/2017				0.0003 (J)
9/22/2017				0.0003 (J)
9/29/2017				0.0003 (J)
10/6/2017				0.0003 (J)
3/30/2018	<0.003	<0.003	0.018	<0.003
6/12/2018	8.1E-05 (J)	0.00012 (J)	0.016	
6/13/2018				0.00035 (J)
9/26/2018		0.00014 (J)	0.024	0.00032 (J)
9/27/2018	9E-05 (J)			
Mean	0.0006561	0.000386	0.01616	0.0003691
Std. Dev.	0.0007263	0.0005873	0.002964	0.0003853
Upper Lim.	0.0015	0.0015	0.018	0.00035
Lower Lim.	8.1E-05	0.0001	0.0142	9E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.001			
8/1/2016		<0.001	0.0014	
9/2/2016				<0.001
9/20/2016	<0.001	<0.001		
9/21/2016			0.0017	
11/8/2016	7E-05 (J)	<0.001		
11/14/2016			0.0027	9E-05 (J)
1/16/2017	<0.001			
1/17/2017		<0.001	0.0033	
2/28/2017				0.0001 (J)
3/1/2017			0.0031	
3/8/2017		<0.001		
3/9/2017	<0.001			
5/2/2017	<0.001	<0.001		
5/3/2017			0.0031	
5/9/2017				0.0002 (J)
7/7/2017		<0.001		
7/10/2017	<0.001		0.0029	
7/13/2017				0.0002 (J)
9/22/2017				0.0002 (J)
9/29/2017				0.0002 (J)
10/6/2017				0.0002 (J)
3/30/2018	<0.001	<0.001	0.0028	<0.001
6/12/2018	<0.001	<0.001	0.0029	
6/13/2018				0.00019 (J)
9/26/2018		<0.001	0.0028	0.00018 (J)
9/27/2018	<0.001			
Mean	0.000457	0.0005	0.00267	0.0002327
Std. Dev.	0.000136	0	0.0006201	0.0001381
Upper Lim.	0.0005	0.0005	0.003168	0.0005
Lower Lim.	7E-05	0.0005	0.002216	9E-05

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	<0.01			
8/1/2016		<0.01	0.0297	
9/2/2016				0.0006 (J)
9/20/2016	<0.01	<0.01		
9/21/2016			0.0237	
11/8/2016	<0.01	<0.01		
11/14/2016			0.0144	<0.01
1/16/2017	<0.01			
1/17/2017		<0.01	0.0095 (J)	
2/28/2017				<0.01
3/1/2017			0.0125	
3/8/2017		<0.01		
3/9/2017	<0.01			
5/2/2017	<0.01	<0.01		
5/3/2017			0.0151	
5/9/2017				<0.01
7/7/2017		<0.01		
7/10/2017	<0.01		0.0121	
7/13/2017				<0.01
9/22/2017				<0.01
9/29/2017				<0.01
10/6/2017				<0.01
3/30/2018	<0.01	<0.01	0.013	<0.01
6/12/2018	<0.01	<0.01	0.014	
6/13/2018				<0.01
9/26/2018		<0.01	0.023	<0.01
9/27/2018	<0.01			
Mean	0.005	0.005	0.0167	0.0046
Std. Dev.	0	0	0.006474	0.001327
Upper Lim.	0.005	0.005	0.02248	0.005
Lower Lim.	0.005	0.005	0.01092	0.0006

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.386 (U)			
8/1/2016		0.467 (U)	1.55	
9/2/2016				0.873 (U)
9/20/2016	1.47	0.853 (U)		
9/21/2016			2.36	
9/22/2016				0.667 (U)
9/29/2016				1.63
10/6/2016				0.641 (U)
11/8/2016	0.22 (U)	0.433 (U)		
11/14/2016			0.851 (U)	0.0451 (U)
1/16/2017	0.147 (U)			
1/17/2017		0.0759 (U)	1.41 (U)	
2/28/2017				1.34 (U)
3/1/2017			1.13	
3/8/2017		0.479 (U)		
3/9/2017	0.0892 (U)			
5/2/2017	0.149 (U)	0.506 (U)		
5/3/2017			0.584 (U)	
5/9/2017				0.309 (U)
7/7/2017		0.713 (U)		
7/10/2017	0.815 (U)		0.46 (U)	
7/13/2017				0.618 (U)
3/30/2018	0.659 (U)	0.409 (U)	0.607 (U)	0.721 (U)
6/12/2018	1.03 (U)	0.728 (U)	0.633 (U)	
6/13/2018				1.04 (U)
9/26/2018		0.981	1.38	0.604 (U)
9/27/2018	1.06 (U)			
Mean	0.6025	0.5645	1.097	0.7716
Std. Dev.	0.4787	0.2595	0.593	0.4434
Upper Lim.	1.03	0.796	1.626	1.141
Lower Lim.	0.1754	0.333	0.5675	0.4021

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.03 (J)			
8/1/2016		<0.3	0.24 (J)	
9/2/2016				0.05 (J)
9/20/2016	<0.3	<0.3		
9/21/2016			0.22 (J)	
11/8/2016	<0.3	<0.3 (*)		
11/14/2016			0.35	0.18 (J)
1/16/2017	<0.3			
1/17/2017		<0.3	0.22 (J)	
2/28/2017				0.09 (J)
3/1/2017			0.33	
3/8/2017		<0.3 (*)		
3/9/2017	<0.3 (*)			
5/2/2017	<0.3	<0.3		
5/3/2017			0.2 (J)	
5/9/2017				0.009 (J)
7/7/2017		<0.3		
7/10/2017	<0.3 (*)		0.57	
7/13/2017				<0.3
9/22/2017				0.09 (J)
9/29/2017				<0.3
10/5/2017		<0.3		
10/6/2017				<0.3
10/11/2017	<0.3		<0.3 (*)	<0.3 (*)
3/30/2018	<0.3	<0.3	1.4	<0.3
6/12/2018	<0.3	<0.3	0.18 (J)	
6/13/2018				<0.3
9/26/2018		<0.3	0.07 (J)	<0.3
9/27/2018	<0.3			
Mean	0.1391	0.15	0.3573	0.1224
Std. Dev.	0.03618	0	0.3697	0.05121
Upper Lim.	0.15	0.15	0.5408	0.18
Lower Lim.	0.03	0.15	0.1297	0.05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0019 (J)			
8/1/2016		<0.05	0.0142 (J)	
9/2/2016				0.0029 (J)
9/20/2016	0.0021 (J)	<0.05		
9/21/2016			0.0145 (J)	
11/8/2016	0.0024 (J)	<0.05		
11/14/2016			0.0253 (J)	0.0044 (J)
1/16/2017	0.0022 (J)			
1/17/2017		<0.05	0.0256 (J)	
2/28/2017				0.0038 (J)
3/1/2017			0.0219 (J)	
3/8/2017		<0.05		
3/9/2017	0.0025 (J)			
5/2/2017	0.0019 (J)	<0.05		
5/3/2017			0.0217 (J)	
5/9/2017				0.0057 (J)
7/7/2017		<0.05		
7/10/2017	0.0018 (J)		0.0214 (J)	
7/13/2017				0.007 (J)
9/22/2017				0.0067 (J)
9/29/2017				0.0064 (J)
10/6/2017				0.0065 (J)
3/30/2018	0.0039 (J)	<0.05	0.024 (J)	0.0061 (J)
6/12/2018	0.0017 (J)	<0.05	0.023 (J)	
6/13/2018				0.0065 (J)
9/26/2018		<0.05	0.034 (J)	0.0063 (J)
9/27/2018	0.0017 (J)			
Mean	0.00221	0.025	0.02256	0.005664
Std. Dev.	0.0006557	0	0.00565	0.001346
Upper Lim.	0.0025	0.025	0.0276	0.006707
Lower Lim.	0.0017	0.025	0.01752	0.00474

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 1/10/2019 5:58 PM View: Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Ponds 3 & B-B'

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
7/28/2016	0.0385			
8/1/2016		<0.01	0.0192	
9/2/2016				0.0012 (J)
9/20/2016	0.0464	<0.01		
9/21/2016			0.0147	
11/8/2016	0.0521	<0.01		
11/14/2016			<0.01	<0.01
1/16/2017	0.0469			
1/17/2017		<0.01	0.0122	
2/28/2017				0.0017 (J)
3/1/2017			0.0151	
3/8/2017		<0.01		
3/9/2017	0.0437			
5/2/2017	0.0395	<0.01		
5/3/2017			0.012	
5/9/2017				0.0018 (J)
7/7/2017		<0.01		
7/10/2017	0.0386		0.0106	
7/13/2017				0.0031 (J)
9/22/2017				0.0024 (J)
9/29/2017				0.002 (J)
10/6/2017				<0.01
3/30/2018	0.028	<0.01	0.011	<0.01
6/12/2018	0.026	<0.01	0.0057 (J)	
6/13/2018				0.0024 (J)
9/26/2018		<0.01	0.016	0.0037 (J)
9/27/2018	0.023			
Mean	0.03827	0.005	0.01215	0.003027
Std. Dev.	0.009731	0	0.004425	0.001435
Upper Lim.	0.04695	0.005	0.0161	0.008982
Lower Lim.	0.02959	0.005	0.008202	0.001151



**ATLANTIC COAST
CONSULTING, INC.**

Roswell, GA
630 Colonial Park Drive
Suite 110
Roswell, GA 30075
Phone: 770.594.5998

Savannah, GA
7 East Congress Street
Suite 801
Savannah, GA 31401
Phone: 912.236.3471

Knoxville, TN
212 S. Peters Road
Suite 203
Knoxville, TN 37923
Phone: 865.531.9143