



2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Plant Yates - AP-3, A, B, B', and R6 CCR Landfill
Newnan, Georgia

August 2020

**2020 SEMIANNUAL
GROUNDWATER
MONITORING AND
CORRECTIVE ACTION
REPORT**

Plant Yates - AP-3, A, B, B', and R6
CCR Landfill Newnan, Georgia



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ACRONYMS AND ABBREVIATIONS

ACC	Atlantic Coast Consulting, Inc.
ACM	Assessment of Corrective Measures
AP	Plant Yates Ash Ponds
CCR	Coal Combustion Residuals
CCR Units	the combined monitoring systems of AP-3, A, B, and B', and the R6 Landfill
CFR	Code of Federal Regulations
DO	dissolved oxygen
GAEPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GWPS	Groundwater Protection Standard
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
mg/L	milligrams per liter
QA/QC	Quality Assurance/Quality Control
SSI	Statistically Significant Increase
SSL	statistically significant level
USEPA	United States Environmental Protection Agency

PROFESSIONAL CERTIFICATION

This 2020 *Semiannual Groundwater Monitoring and Corrective Action Report* for the Georgia Power Company Plant Yates AP-3, A, B, B', and R6 CCR Landfill has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Arcadis, U.S., Inc.

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1 INTRODUCTION

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* presents groundwater monitoring activities conducted at the Georgia Power Company (GPC) Plant Yates Ash Ponds (AP) AP-3, A, B, B' and R6 Landfill (the Site) in February and March 2020. This report was prepared in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (GAEPD) Rules for Solid Waste Management 391-3-4-.10. Groundwater monitoring requirements for the site are specified by GAEPD Rule 391-3-4-.10(6)(a), which also incorporates the USEPA CCR Rule. For ease of reference, the USEPA CCR Rules are cited within this report.

This report presents the results of February 2020 annual monitoring for Appendix IV of 40 CFR 257, as well as a semiannual monitoring event conducted in March 2020 and activities completed through the first half of 2020 in accordance with Rule 391-3-4-.10(6)(c). Statistical analysis of data from the first semiannual assessment monitoring event (October 2019) for the R6 CCR Landfill is also presented in this report.

1.1 Background

Two permit application packages were submitted to GAEPD in November 2018: one for AP-3, A, B, and B', and another for the R6 CCR Landfill. Due to the configuration of the units and overall groundwater flow direction, both permits proposed combining the monitoring systems of AP-3, A, B, and B', and the R6 Landfill into a single multi-unit monitoring system that meets federal and state monitoring requirements. Although the permit application is still in review, GPC proactively began monitoring the R6 Landfill as part of a combined multi-unit monitoring program. Groundwater monitoring and reporting for the CCR Units is performed in accordance with the monitoring requirements presented in §§ 257.90 through 257.95 of the federal CCR rule and GAEPD Rule 391-3-4-.10(6)(a)-(c). Due to the configuration of the units and the overall groundwater flow direction, a combined multi-unit groundwater monitoring network for the CCR units has been proposed in the permit packages.

Reports for AP-3, A, B and B' were previously completed per 40 CFR § 257.90(e) and those sites have been placed in assessment monitoring according to 40 CFR § 257.95. An Assessment of Corrective Measures (ACM) Report for AP-3, A, B, B' was submitted in June 2019 per 40 CFR § 257.96 to address a statistically significant level (SSL) of beryllium in samples from groundwater monitoring well YGWC-33S. Statistical analysis of data collected in April 2019 and reported in the August 2019 semiannual groundwater monitoring report also identified cobalt as an SSL at YGWC-33S. As noted in the January 31, 2020 *Supplemental Semiannual Remedy Selection and Design Progress Report*, the current semiannual remedy selection progress report is attached as **Appendix A**. The initial groundwater monitoring report for the R6 CCR Landfill was completed on July 31, 2019 (Atlantic Coast Consulting, Inc. [ACC] 2019). Assessment monitoring for the R6 CCR Landfill was initiated on November 13, 2019.

This report and subsequent semi-annual reports will include combined results for assessment monitoring of AP-3, A, B and B' and the R6 CCR Landfill.

1.2 Site Description, Regional Geology and Hydrogeologic Setting

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. The Site is 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** depicts the site location relative to the surrounding area.

Plant Yates is located in the Inner Piedmont Physiographic Province of western Georgia, immediately southeast of the Brevard Zone, a regional fault zone that separates the Piedmont from the Blue Ridge. Rock units at Plant Yates are primarily interlayered gneiss and schists. The rocks in the area have been subjected to extensive metamorphism, deformation, and igneous intrusions. Extensive fracture sets are present in the underlying bedrock. Surface expressions of these fractures are observed on topographic maps and aerial photos of the Plant Yates area (ACC January 2020).

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 to 40 feet below ground surface, was formed in-place by the physical and chemical weathering of the underlying metamorphic rocks. The saprolite typically consists of clay and silt rich soils that grade to sandier soils with depth. A zone of variable thickness (approximately 5 to 20 feet) of transitionally weathered rock typically exists between the saprolite and competent bedrock. The lithology of the transition zone is highly variable and ranges from medium to coarse unconsolidated material to highly fractured and weathered rock fragments. Localized alluvial soils consisting of generally coarser material (silty-sand, clayey silt, and silty clay with well-rounded gravel and cobbles) that have been 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. Groundwater flow in the saprolite zone is through interconnected pores and relict textures and fractures. As the rock becomes increasingly competent with depth, groundwater flow occurs mainly through joints and 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.

Field hydraulic conductivity tests (i.e., slug tests) have been performed in saprolite and weathered bedrock at multiple locations at the Site. The hydraulic conductivity at these locations is typically in a range from 10^{-3} to 10^{-4} centimeters per second, based on multiple rising-head and falling-head slug tests (ACC 2019). This indicates a fairly uniform medium across the saprolite and weathered rock horizon. The hydraulic conductivity values from the field tests fall within a range consistent with that of Piedmont overburden (Newell et al. 1990).

1.3 Groundwater Monitoring Well Network and CCR Unit Description

Pursuant to 40 CFR § 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. Wells are located to monitor upgradient and downgradient conditions based on groundwater flow direction. The compliance monitoring well network is summarized in **Table 1A**. Additionally, a series of piezometers and non-network wells are

installed to supplement characterization and groundwater elevation measurements (**Table 1B**).

As typical of the Piedmont Physiographic Province, there is a degree of connectivity between the saprolite and partially weathered rock units. Fractured bedrock may or may not be connected to the overlying units and flow may be controlled by geologic structures present. Based on the site hydrogeology, the monitoring system is designed to monitor groundwater flow in the saprolite, the transition-zone, and the upper bedrock. Wells suffixed with an “S” are installed in saprolite, an “I” indicates partially weathered rock (transition zone), and “D” indicates upper bedrock. The monitoring well network for the Site is provided on **Figure 2**.

2 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed in the first half of 2020 and presents the status of the monitoring program. Groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring system shown on **Figure 2**.

Table 2 summarizes groundwater sampling events conducted by ACC at AP-3, A, B, B' and R6 CCR Landfill during February and March 2020. Field sampling logs are provided in **Appendix B**.

2.1 Monitoring Well Installation and Maintenance

Well YGWC-33S was abandoned in June 2020 because it was not suitably located to detect groundwater flow away from the combined AP-3, A, B, B' and the R6 Landfill waste boundary. Network monitoring well YGWC-36 will be used for that purpose. Additionally, YGWC-24S and PZ-24I were abandoned in June 2020 and replacement wells YGWC-24A and PZ-24IA were installed to the east to accommodate planned construction work along Dyer Road. A Well Installation Report was submitted under a separate cover on August 10, 2020. Closure by removal activities in the R6 ditch necessitated abandonment of YGWC-36 on July 20, 2020. A replacement well will be installed prior to the upcoming sampling event, currently scheduled for the third quarter of 2020. Other monitoring well-related activities were limited to visual inspection of well conditions prior to sampling, recording site conditions, and performing exterior maintenance to provide safe access for sampling.

2.2 Assessment Monitoring

An assessment monitoring program was initiated on January 14, 2018 at AP-3, B, and B'. A notice of assessment monitoring was placed in the operating record on May 15, 2018. AP-A is an inactive surface impoundment subject to the revised requirements of 40 CFR § 257.100 and was added to the multi-unit system on April 17, 2019. The first assessment monitoring event for AP-A occurred in September 2019. Assessment monitoring was initiated at the R6 CCR Landfill following the results of the March 2019 monitoring event. The first semiannual assessment monitoring event for the R6 CCR Landfill occurred in October 2019; a notice of assessment monitoring was placed in the operating record for the R6 CCR Landfill on November 13, 2019. The first statistical analysis of the October 2019 R6 CCR Landfill results was completed on April 10, 2020 and are incorporated into this report. AP-3, A, B, B' and the R6 CCR Landfill currently remain in assessment monitoring.

Monitoring wells at AP-3, A, B, B' and the R6 CCR Landfill were sampled for Appendix IV parameters in February 2020 pursuant to 40 CFR § 257.95(b). In accordance with 40 CFR § 257.95(d), a semiannual assessment monitoring event occurred in March 2020 where samples were collected and analyzed for Appendix III parameters and Appendix IV parameters detected above the laboratory method detection limit (MDL) from the February 2020 event. A summary of groundwater sampling events completed during the first half of 2020 is provided in **Table 2**.

2.3 Other Groundwater Sampling

To further characterize groundwater quality at the site, additional samples were collected from wells YAMW-1 through YAMW-5 and PZ-35 in January, February, and March 2020. Well locations are presented on **Figure 2**. Sampling and analysis were performed following the procedures described in Section 3. Analytical results from the additional sampling of these monitoring wells/piezometer are incorporated in the *Second Semiannual Remedy Selection and Design Progress Report* included as **Appendix A** to this report.

2.4 Assessment of Corrective Measures

Based on assessment monitoring results presented in the *2018 Annual Groundwater and Corrective Action Monitoring Report*, a Notice of Assessment of Corrective Measures was placed in the operating record on February 12, 2019 for the AP-3, B, and B' units in accordance with 40 CFR § 257.96. AP-A was added to the multi-unit groundwater monitoring system on April 17, 2019 and a notice to incorporate AP-A into the ACM was provided on June 12, 2019. The first *Semiannual Remedy Selection and Design Progress Report* was submitted on December 12, 2019 and updated on January 31, 2020.

3 SAMPLING METHODOLOGY AND ANALYSIS

Groundwater monitoring methods used at the Site are described in the following sections.

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to the February and March assessment sampling events, static water levels were recorded from piezometers and wells in the well network at AP-3, A, B, B' and the R6 CCR Landfill. Water levels at 19 monitoring wells within the certified well network were collected at AP-3, A, B, B' and the R6 CCR Landfill. Additionally, water levels were collected at 15 non-network monitoring wells and/or piezometers. The February and March 2020 groundwater elevation data are summarized in **Tables 3A and 3B**, respectively.

Saprolite, transition zone, and shallow bedrock groundwater elevation data were used to prepare a potentiometric surface elevation contour map (**Figure 3**). Groundwater elevations range from 729.67 feet (YGWC-33S) to 796.55 feet (YGWA-39). The groundwater flow direction for the saprolite, transition zone, and shallow bedrock wells is generally towards the west, northeast, and east from the southern portion of the R6 ash disposal area, which serves as a topographic high and groundwater recharge area. Groundwater flows west from the eastern portions of the Ash Management Area, Ash Pond 3, and Ash Pond B' areas to the central portion of the site. The groundwater flow direction is consistent with

historical patterns. Deeper bedrock groundwater elevations vary across the site, ranging from 731.01 feet (YGWC-43) to 782.45 feet (PZ-48). It is interpreted that these variations are attributed to bedrock geologic structural controls, and therefore may be hydraulically independent of each other. Based on this interpretation, the deep bedrock potentiometric surface was not used for contouring.

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

Specifically:

$$v = \frac{k \left(\frac{dh}{dl} \right)}{n_e}$$

where:

v = groundwater seepage velocity

k = hydraulic conductivity

dh/dl = hydraulic gradient

n_e = effective porosity

Groundwater flow velocities were calculated for the site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll 1986, USEPA 1989, and Freeze and Cherry 1979). Calculated groundwater flow velocities for March 2020 and are presented in **Table 4**. The calculated average linear flow velocity is 33 feet per year.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Monitoring wells were purged and sampled using a dedicated bladder pump until water quality parameters stabilized. For wells sampled with non-dedicated bladder pumps, the pumps were lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations.

A smarTroll™ (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, and dissolved oxygen [DO]) 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 for a minimum of three consecutive readings:

- ± 0.1 standard units for pH.
- ± 10% for specific conductance.
- ± 10% for DO where DO > 0.5 milligrams per liter (mg/L). No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 10 nephelometric turbidity units.

Once stabilization was achieved, samples were collected directly into laboratory-supplied sample containers with preservative (where applicable). The samples were placed on ice in an insulated cooler following their collection. The samples were submitted to Pace Analytical Services, LLC following chain-of-custody protocol. Stabilization logs for each well are included in **Appendix B**.

3.3 Laboratory Analyses

Samples were submitted for laboratory analysis from 13 monitoring wells for the AP-3, A, B, and B' units, and six monitoring wells for the R6 CCR Landfill as summarized in **Table 2**. During the February 2020 sampling event, the AP-3, A, B, B' and R6 CCR Landfill wells were sampled and analyzed for Appendix IV parameters according to 40 CFR § 257.95(b). Groundwater samples collected during the semiannual event in March 2020 were analyzed for Appendix III parameters as well as those Appendix IV parameters detected above the laboratory MDL during the February 2020 event, in accordance with 40 CFR § 257.95(d). Mercury was not detected above the laboratory MDL during the February 2020 scan event. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix C**.

Analytical data collected from the two sampling events (February and March 2020) are summarized in **Table 5**. A summary of historical groundwater data is provided in **Appendix D**.

Laboratory analyses were performed by Pace Analytical Services, LLC, which is accredited by the National Environmental Laboratory Accreditation Program and maintains this certification for all parameters analyzed for this project. Laboratory reports and chain-of-custody records for the monitoring events are presented in **Appendix C**.

3.4 Data Quality Assurance/Quality Control and Validation

During each sampling event, quality assurance/quality control (QA/QC) samples were collected at a rate of one sample per every 10 samples. QA/QC samples included equipment blanks (where non-dedicated equipment is used), field blanks, and duplicate samples. Groundwater quality data in this report was validated in accordance with USEPA guidance (USEPA 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-digestion spikes, laboratory and field duplicate relative percent differences, equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags have been applied to the data using USEPA procedures as guidance (USEPA 2017). The data validation report prepared by ACC included in **Appendix C** summarizes the validation actions and applicable interpretation.

The purpose of the data quality evaluation was to determine the reliability of the chemical analyses and the accuracy and precision of information acquired from the laboratory. Data quality was assessed through the review and evaluation of field sampling activities, quality control samples, and data associated with the chemical analytical results. The complete results of the data quality evaluations are provided in **Appendix C**.

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the MDL and the laboratory reporting limit. 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 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples from the R6 Landfill (October 2019) and the R6 Landfill, AP-3, A, B, and B' (March 2020) assessment monitoring events pursuant to 40 CFR §§ 257.93–95 following the established, certified statistical methods. The statistical method used at the site was developed in accordance with 40 CFR § 257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, USEPA 530/R-09-007 (USEPA 2009).

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 USEPA regulations and guidance as recommended in the Unified Guidance document (USEPA 2009). Although Assessment Monitoring has been implemented, statistical evaluation of Appendix III constituents is performed to determine whether constituents have returned to background conditions.

4.1.1 Appendix III Statistical Methods

Groundwater data were evaluated using interwell tolerance limits for Appendix III parameters. This method uses pooled upgradient monitoring well data to establish a background statistical limit. Data from the March 2020 event were compared to the statistical limit to determine whether concentrations exceeded background levels. The statistical method incorporates an optional 1-of-2 verification resample plan. When an initial statically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine whether the result was an outlier. If resampling is performed and the initial finding is not verified, the resampled value replaces the initial finding. When the resample confirms the initial result, both values remain in the database and an SSI is declared. The following criteria were applied to the evaluation:

- Statistical analyses were not performed on analytes containing 100 percent non-detects.
- When data contained less than 15 percent non-detects in background, simple substitution of one-half the reporting limit was used in the statistical analysis. The reporting limit used for non-detects is the practical quantification limit reported by the laboratory.
- When data contained between 15 to 50 percent non-detects, the Kaplan-Meier non-detect adjustment was applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Non-parametric prediction limits were used on data containing greater than 50 percent non-detects.

4.1.2 Assessment Monitoring Statistical Methods

Parametric tolerance limits were used to calculate background limits from pooled upgradient well data for Appendix IV constituents with a target of 95 percent confidence and 95 percent 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 standards (GWPS) established under 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a).

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

- The maximum contaminant level (MCL) established under §§ 141.62 and 141.66 of this title;
- For the following constituents:
 - Cobalt: 0.006 mg/L
 - Lead: 0.015 mg/L
 - Lithium: 0.040 mg/L
 - Molybdenum: 0.100 mg/L; and
- The background level for constituents where the background level is higher than the MCL or rule identified GWPS.

USEPA 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 GAEPD Rules for Solid Waste Management 391-3-4-.10(6)(a); 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 GAEPD rules, the GWPS is:

- The MCL; or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above federal and state rules, GWPS have been established for statistical comparison of Appendix IV constituents at AP-3, A, B, B' and the R6 CCR Landfill. **Table 6** summarizes the background limits established at each monitoring well for the October 2019 (R6 CCR Landfill only) and March 2020 (AP-3, A, B, B', and R6 CCR Landfill) sampling events along with the GWPS established under federal and state 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 federal and state rules. A well/constituent pair was considered to exceed its respective standard only when the entire confidence interval exceeded a GWPS. If there was an exceedance of the established standard, an SSL exceedance was identified.

4.2 Statistical Analysis Results

Appendix III statistical analysis for wells associated with the Site was performed to determine whether constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated for the AP-3, A, B, B' and R6 CCR Landfill to determine whether concentrations statistically exceed the established GWPS. Appendix IV analytical data from the first assessment monitoring event at the R6 CCR Landfill (October 2019), and Appendix III and Appendix IV data from the first 2020 semiannual event for the combined AP-3, A, B, B', and R6 CCR Landfill were statistically analyzed in accordance with the Statistical Analysis Plan (Groundwater Stats 2019). Evaluation of Appendix III

constituents from the R6 CCR Landfill October 2019 monitoring event were presented in the *2019 Annual Groundwater Monitoring and Corrective Action Effectiveness Report* (ACC 2020).

Based on review of the Appendix III statistical analysis from the March 2020 sampling event presented in **Appendix E**, Appendix III constituents have not returned to background levels for either unit and assessment monitoring should continue pursuant to 40 CFR § 257.95(f). A table is provided in **Appendix E** summarizing Site monitoring wells where analytical sampling results have revealed constituents with SSIs.

4.2.1 First Assessment Monitoring Event (R6 CCR Landfill)

Statistical analysis of the October 2019 Appendix IV data from the R6 CCR Landfill was completed using the GWPS established according to both 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a). The following SSLs were identified:

- Beryllium: YGWC-38
- Selenium: YGWC-38 and YGWC-41.

A groundwater exceedance notification was placed in the operating record on May 8, 2020 pursuant to 40 CFR § 257.95(g).

4.2.2 First Semiannual 2020 Assessment Monitoring Event (AP-3, A, B, B', and R6 CCR Landfill)

Statistical analysis of the March 2020 Appendix IV data was completed using the GWPS established according to both 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a). The following SSLs were identified:

- Beryllium: YGWC-33S and YGWC-38
- Cobalt: YGWC-33S
- Selenium: YGWC-38 and YGWC-41.

Sanitas™ statistical output data for calculation of site-specific background concentrations (interwell tolerance limits) and confidence intervals for each Appendix IV constituent in downgradient wells are provided in **Appendix E**.

5 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), an assessment monitoring program was implemented in January 2018 for AP-3, A, B, and B'. SSLs of Appendix IV parameters were identified at the multi-unit network during the 2019 assessment monitoring events. The R6 CCR Landfill was placed in assessment monitoring following the initial detection monitoring event in March 2019 and was initiated with the second 2019 semiannual monitoring event. Pursuant to 40 CFR § 257.96(b), GPC will continue to monitor groundwater at AP-3, A, B, B', and the R6 CCR Landfill in accordance with the assessment monitoring program regulations of 40 CFR § 257.95 while ACM efforts are implemented to evaluate SSL concentrations of cobalt, beryllium, and selenium.

The SSLs of beryllium and cobalt at well YGWC-33S are spatially and vertically delineated to below GWPS at wells PZ-35 and YAMW-1, respectively, The SSL of selenium in well YGWC-41 is spatially delineated to below GWPS at wells YAMW-2 and YAMW-3, and vertically at YAMW-4. The SSL of beryllium and selenium in well YGWC-38 is vertically delineated to below GWPS at YAMW-5, and spatially delineated by downgradient well YGWC-36. Closure by removal activities in the R6 ditch necessitated abandonment of YGWC-36 on July 20, 2020. A replacement well will be installed prior to the upcoming sampling event, currently scheduled for the third quarter of 2020.

The ACM efforts completed during the reporting period are presented in the *Semiannual Remedy Selection and Design Progress Report* in **Appendix A**. GPC will include future semiannual progress reports with each groundwater monitoring and corrective action report.

6 CONCLUSIONS AND RECOMMENDATIONS

This 2020 *First Semi-Annual Groundwater Monitoring & Corrective Action Report* was prepared to fulfill the requirements of US EPA's 40 CFR §257.95 and Georgia EPD's 391-3-4-.10. The groundwater flow direction interpreted during this event is consistent with historical evaluations. Statistical evaluations of groundwater monitoring data for the combined monitoring unit, AP-3, A, B, B' and the R6 Landfill, show SSLs of beryllium and cobalt in well YGWC-33S, beryllium and selenium in well YGWC-38, and selenium in well YGWC-41. Delineation data from the site indicate that constituents showing SSLs are spatially and vertically delineated onsite to concentrations below the GWPS.

Assessment monitoring at AP-3, A, B, B', and the R6 CCR Landfill will continue pursuant to § 257.95, as well as the assessment of corrective measures as required by § 257.96 at the multi-unit site.

The next semiannual groundwater monitoring event is scheduled for the third quarter of 2020 and will include the collection of Appendix III analytes and the Appendix IV constituents analyzed during the March 2020 sampling event.

7 REFERENCES

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2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

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TABLES



Table 1A - Monitoring Well Network Summary
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - AP-3, A, B, B' and R6 CCR Landfill

Well ID	Installation Date	Depth to Bottom (ft bTOC)	Bottom Elevation (ft)	Depth to Top of Screen (ft bTOC)	Top of Screen Elevation (ft)	Hydraulic Location
AP-3, A, B and B'						
YGWA-4I	5/21/2014	48.81	735.40	38.51	745.70	Upgradient
YGWA-5I	5/21/2014	58.94	725.60	48.64	735.90	Upgradient
YGWA-5D	5/21/2014	129.13	655.40	78.83	705.70	Upgradient
YGWA-17S	9/10/2015	39.85	743.20	29.65	753.40	Upgradient
YGWA-18S	9/8/2015	39.97	750.60	29.97	760.60	Upgradient
YGWA-18I	9/8/2015	79.97	710.60	69.67	720.90	Upgradient
YGWA-20S	9/29/2015	29.52	737.60	19.22	747.90	Upgradient
YGWA-21I	9/28/2015	79.90	703.80	69.60	714.10	Upgradient
YGWC-23S	9/21/2015	38.91	726.00	28.61	736.30	Downgradient
YGWC-24S	9/16/2015	57.57	706.55	47.24	716.88	Downgradient
YGWC-33S	3/3/2016	38.53	706.01	28.33	716.21	Downgradient
YGWC-36	7/20/2016	55.86	683.67	45.53	694.00	Downgradient
YGWC-49	7/13/2016	78.53	704.20	68.03	714.70	Downgradient
R6 CCR Landfill						
YGWA-39	7/7/2016	68.59	749.60	58.09	760.10	Upgradient
YGWA-40	7/7/2016	48.23	767.50	37.73	778.00	Upgradient
YGWC-38	7/23/2016	50.59	749.10	39.59	760.10	Downgradient
YGWC-41	7/8/2016	67.32	736.60	56.82	747.10	Downgradient
YGWC-42	7/8/2016	59.76	738.10	49.36	748.50	Downgradient
YGWC-43	7/9/2016	79.66	665.30	69.16	675.80	Downgradient

Notes:

Elevation is presented in U.S. Survey Feet (North American Vertical Datum of 1988) based on June 2020 survey.

Acronyms and Abbreviations:

bTOC = below top of casing

ft = feet

Table 1B - Non- Network Well Summary
2020 Semiannual Monitoring and Corrective Action Report
Plant Yates - AP-3, A, B, B' and R6 CCR Landfill

Well ID	Installation Date	Top of Casing Elevation (ft)	Depth to Bottom (ft bTOC)	Bottom Elevation (ft)	Depth to Top of Screen (ft bTOC)	Top of Screen Elevation (ft)	Purpose
AP-3, A, B and B'							
YGWA-6S	5/19/2014	782.47	39.87	742.60	29.57	752.90	Piezometer
YGWA-6I	5/19/2014	782.73	69.03	713.70	58.73	724.00	Piezometer
YAMW-1	9/19/2018	743.83	69.93	673.90	59.6	684.23	Downgradient
PZ-04S	5/21/2014	784.25	33.33	751.50	23.03	761.22	Piezometer
PZ-05S	5/21/2014	784.64	41.94	742.70	31.64	753.00	Piezometer
PZ-06D	5/19/2014	782.02	134.02	648.00	83.72	698.30	Piezometer
PZ-24I	9/16/2015	764.33	89.79	674.54	79.46	684.80	Piezometer
PZ-35	7/20/2016	743.81	50.01	693.80	38.91	704.90	Downgradient
PZ-48	7/11/2016	779.83	58.73	721.10	48.43	731.40	Piezometer
R6 CCR Landfill							
PZ-37	7/6/2016	760.78	49.78	711.00	39.28	721.50	Piezometer
PZ-51	11/8/2019	744.3	36.00	708.30	26.30	718.00	Piezometer
YAMW-2	11/12/2019	781.04	46.48	734.56	36.44	744.60	Downgradient
YAMW-3	11/6/2019	796.05	91.44	704.61	81.45	714.60	Downgradient
YAMW-4	11/7/2019	805.59	96.55	709.04	86.59	719.00	Downgradient
YAMW-5	11/13/2019	788.90	90.34	698.56	80.30	708.60	Downgradient

Notes:

1. YAMW-1 and PZ-35 used for downgradient characterization of YGWC-33S.
2. Elevation is presented in U.S. Survey Feet (North American Vertical Datum of 1988).

Acronyms and Abbreviations:

bTOC = below top of casing
 ft = feet

**Table 2 - Groundwater Sampling Plan
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - AP-3, A, B, B' and R6 CCR Landfill**

Well ID	Hydraulic Location	Assessment Monitoring	2020 Semiannual Sampling
		February 11-17, 2020	March 24-26, 2020
AP-3, A, B and B'			
YGWA-4I	Upgradient	Scan	A-05
YGWA-5I	Upgradient	Scan	A-05
YGWA-5D	Upgradient	Scan	A-05
YGWA-17S	Upgradient	Scan	A-05
YGWA-18S	Upgradient	Scan	A-05
YGWA-18I	Upgradient	Scan	A-05
YGWA-20S	Upgradient	Scan	A-05
YGWA-21I	Upgradient	Scan	A-05
YGWC-23S	Downgradient	Scan	A-05
YGWC-24S	Downgradient	Scan	A-05
YGWC-33S	Downgradient	Scan	A-05
YGWC-36	Downgradient	Scan	A-05
YGWC-49	Downgradient	Scan	A-02
R6 CCR Landfill			
YGWA-39	Upgradient	Scan	A-02
YGWA-40	Upgradient	Scan	A-02
YGWC-38	Downgradient	Scan	A-02
YGWC-41	Downgradient	Scan	A-02
YGWC-42	Downgradient	Scan	A-02
YGWC-43	Downgradient	Scan	A-02

Notes:

1. Scan = All wells analyzed per Appendix IV.
2. A-XX indicates the Assessment Event Number (Appendix III and Detected Appendix IV).

Table 3A - Summary of Groundwater Elevations - February 2020
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - AP-3, A, B, B' and R6 CCR Landfill

Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation (ft)
YGWA-4I	2/10/2020	784.21	22.66	761.55
YGWA-5I	2/10/2020	784.54	18.33	766.21
YGWA-5D	2/10/2020	784.53	22.81	761.72
YGWA-6S	2/10/2020	782.47	17.40	765.07
YGWA-6I	2/10/2020	782.73	17.74	764.99
YGWA-17S	2/10/2020	783.05	10.49	772.56
YGWA-18S	2/10/2020	790.57	19.43	771.14
YGWA-18I	2/10/2020	790.57	22.57	768.00
YGWA-20S	2/10/2020	767.12	11.05	756.07
YGWA-21I	2/11/2020	783.70	27.52*	756.18
YGWC-23S	2/11/2020	764.91	17.18*	747.73
YGWC-24S	2/11/2020	764.12	27.53	736.59
YGWC-33S	2/11/2020	744.54	15.41*	729.13
YGWC-36	2/11/2020	739.61	9.28*	730.33
YGWC-38	2/11/2020	799.69	30.67*	769.02
YGWA-39	2/11/2020	818.19	23.45	794.74
YGWA-40	2/11/2020	815.73	24.90	790.83
YGWC-41	2/11/2020	803.92	27.90	776.02
YGWC-42	2/11/2020	797.86	27.65	770.21
YGWC-43	2/11/2020	744.96	14.48	730.48
YGWC-49	2/10/2020	782.73	31.70	751.03
PZ-35	2/11/2020	743.81	12.14	731.67
PZ-04S	2/10/2020	784.25	24.18	760.07
PZ-05S	2/10/2020	784.64	18.25	766.39
PZ-06D	2/10/2020	782.02	21.81	760.21
PZ-24I	2/11/2020	764.33	28.29	736.04
PZ-37	2/11/2020	760.78	14.13*	746.65
PZ-48	2/10/2020	779.83	19.43	760.40
PZ-51	2/11/2020	744.30	6.69	737.61
YAMW-1	2/11/2020	743.83	11.99	731.84
YAMW-2	2/11/2020	781.04	18.60	762.44
YAMW-3	2/10/2020	796.05	35.36	760.69
YAMW-4	2/11/2020	805.59	31.19	774.40
YAMW-5	2/11/2020	788.90	31.73	757.17

Notes:

* Depth to water recorded from transducer reading on March 17, 2020.

Elevation is presented in U.S. Survey Feet (North American Vertical Datum of 1988) based on June 2020 survey.

Acronyms and Abbreviations:

bTOC = below top of casing

ft = feet

TOC = top of casing

Table 3B - Summary of Groundwater Elevations - March 2020
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - AP-3, A, B, B' and R6 CCR Landfill

Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation (ft)
YGWA-4I	3/16/2020	784.21	18.95	765.26
YGWA-5I	3/16/2020	784.54	14.53	770.01
YGWA-5D	3/16/2020	784.53	21.31	763.22
YGWA-6S	3/16/2020	782.47	15.15	767.32
YGWA-6I	3/16/2020	782.73	15.82	766.91
YGWA-17S	3/16/2020	783.05	9.39	773.66
YGWA-18S	3/16/2020	790.57	16.04	774.53
YGWA-18I	3/16/2020	790.57	19.87	770.70
YGWA-20S	3/16/2020	767.12	10.87	756.25
YGWA-21I	3/16/2020	783.70	25.77*	757.93
YGWC-23S	3/16/2020	764.91	15.93*	748.98
YGWC-24S	3/16/2020	764.12	25.96	738.16
YGWC-33S	3/16/2020	744.54	14.87*	729.67
YGWC-36	3/16/2020	739.61	9.46*	730.15
YGWC-38	3/16/2020	799.69	28.25*	771.44
YGWA-39	3/16/2020	818.19	21.64	796.55
YGWA-40	3/16/2020	815.73	21.45	794.28
YGWC-41	3/16/2020	803.92	24.24	779.68
YGWC-42	3/16/2020	797.86	24.44	773.42
YGWC-43	3/16/2020	744.96	13.95	731.01
YGWC-49	3/16/2020	782.73	29.34	753.39
PZ-35	3/16/2020	743.81	11.94	731.87
PZ-04S	3/16/2020	784.25	20.27	763.98
PZ-05S	3/16/2020	784.64	14.38	770.26
PZ-06D	3/16/2020	782.02	19.46	762.56
PZ-24I	3/16/2020	764.33	27.03	737.30
PZ-37	3/16/2020	760.78	12.68*	748.10
PZ-48	3/16/2020	779.83	17.38	762.45
PZ-51	3/16/2020	744.30	5.82	738.48
YAMW-1	3/16/2020	743.83	11.74	732.09
YAMW-2	3/16/2020	781.04	15.60	765.44
YAMW-3	3/16/2020	796.05	30.18	765.87
YAMW-4	3/16/2020	805.59	27.07	778.52
YAMW-5	3/16/2020	788.90	14.32	774.58

Notes:

* Depth to water recorded from transducer reading on March 17, 2020.

Elevation is presented in U.S. Survey Feet (North American Vertical Datum of 1988) based on June 2020 survey.

Acronyms and Abbreviations:

bTOC = below top of casing

ft = feet

TOC = top of casing

Equation

$$V = \frac{K (dh/dl)}{n_e}$$

where: V = groundwater velocity
 K = hydraulic conductivity
 dh/dl = hydraulic gradient
 n_e = effective porosity

Values Used in Calculation

Value			Source
K _{max} :	3.70E-03 10	cm/sec ft/day	See note 1
K _{min} :	9.70E+05 0.28	cm/sec ft/day	
K _{avg} :	2.90E-04 0.8	cm/sec ft/day	
i ₁ = 0.0190 i ₂ = 0.0262 i _{avg} = 0.0222	unitless unitless unitless	Hydraulic gradient from: YGWA-40 to YGWC-42 YGWC-49 to PZ-24I Average	
n _e = 0.20	unitless	See note 2	

Minimum Linear Flow Velocity

$$V_{min} = \frac{(0.28) (0.02)}{0.20}$$

$$V_{min} = 0.03 \text{ ft/day, or } 10 \text{ ft/year}$$

Maximum Linear Flow Velocity

$$V_{max} = \frac{(10) (0.02)}{0.20}$$

$$V_{max} = 1.0 \text{ ft/day, or } 380 \text{ ft/year}$$

Average Linear Flow Velocity

$$V_{avg} = \frac{(0.8)(0.022)}{0.2}$$

$$V_{avg} = 0.09 \text{ ft/day, or } 33 \text{ ft/year}$$

Notes:

1. Slug tests performed by Atlantic Coast Consulting, Inc. at AP-3/B'B'/R6 (2014-2017). Geomean of test results used for K_{avg}
2. Default value recommended by USEPA for silty sand-type soil (USEPA 1996).

Table 5 - Groundwater Analytical Data - February and March 2020
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - A-3, A, B, B' and R6 CCR Landfill

Analyte	YGWA-4I	YGWA-4I	YGWA-5D	YGWA-5D	YGWA-5I	YGWA-5I	YGWA-17S	YGWA-17S	YGWA-18I	
	2/12/2020	3/25/2020	2/12/2020	3/24/2020	2/12/2020	3/24/2020	2/11/2020	3/24/2020	2/11/2020	
Appendix III	pH	6.15	6.26	7.52	7.34	5.83	5.81	5.58	5.57	6.07
	Boron	--	0.011 J	--	0.011 J	--	0.0068 J	--	0.0092 J	--
	Calcium	--	10.5	--	26.1	--	2.5	--	2.7	--
	Chloride	--	3.9	--	3.5	--	4.3	--	5.0	--
	Fluoride	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Sulfate	--	8.8	--	5.9	--	2.2	--	5.4	--
	Total Dissolved Solids	--	146	--	139	--	113 D6	--	71.0	--
Appendix IV	Antimony	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027
	Arsenic	< 0.00035	< 0.00035	0.0046 JB	0.00065 J	0.0020 JB	< 0.00035	0.0022 JB	< 0.00035	0.0014 JB
	Barium	0.012	0.016	0.0079 J	0.0076 J	0.023	0.021	0.015	0.015	0.022
	Beryllium	< 0.000074	< 0.000074	< 0.000074	< 0.000074	< 0.000074	< 0.000074	0.000078 J	0.000080 J	< 0.000074
	Cadmium	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	< 0.00039	0.00058 J	< 0.00039	< 0.00039	0.00075	0.0014 J	0.00087 J	0.00087 J	0.0010 J
	Cobalt	< 0.00030	0.00056 J	0.00037 J	0.00035 J	< 0.00030	< 0.00030	< 0.00030	< 0.00030	< 0.00030
	Lead	< 0.000046	< 0.000046	< 0.000046	0.000054 J	< 0.000046	0.000068 J	< 0.000046	0.000064 J	< 0.000046
	Lithium	0.011 J	0.014 J	0.0066 J	0.0064 J	0.0033	0.0033	< 0.00078	0.0034 J	0.0033 J
	Mercury	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014
	Molybdenum	< 0.00095	< 0.00095	0.0011 J	0.0011 J	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095
	Combined Radium - 226/228	1.25	0.766 U	4.02	3.52	0.913 U	1.37	0.461 U	0.534 U	1.48
	Selenium	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
	Thallium	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052

Table 5 - Groundwater Analytical Data - February and March 2020
 2020 Semiannual Groundwater Monitoring and Corrective Action Report
 Plant Yates - A-3, A, B, B' and R6 CCR Landfill

Analyte	YGWA-18I	YGWA-18S	YGWA-18S	YGWA-20S	YGWA-20S	YGWA-21I	YGWA-21I	YGWA-39	
	3/24/2020	2/11/2020	3/24/2020	2/12/2020	3/24/2020	2/12/2020	3/24/2020	2/12/2020	
Appendix III	pH	5.98	5.30	5.33	6.00	5.86	7.13	6.35	5.97
	Boron	0.0054 J	--	0.010 J	--	< 0.0049	--	0.016 J	--
	Calcium	5.3	--	1.0	--	2.6	--	6.0	--
	Chloride	7.0	--	6.8	--	2.7	--	2.8	--
	Fluoride	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.10 J	0.081 J	< 0.050
	Sulfate	< 0.50	--	0.99 J	--	< 0.50	--	3.0	--
	Total Dissolved Solids	91.0	--	59.0	--	76.0	--	117	--
Appendix IV	Antimony	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	0.0015 J	0.0017 J	< 0.00027
	Arsenic	< 0.00035	0.0026 JB	< 0.00035	< 0.00035	< 0.00035	0.0025 J	0.0013 J	0.00058 J
	Barium	0.021	0.019	0.017	0.014	0.015	0.011	0.011	0.011
	Beryllium	< 0.000074	0.000076 J	0.000089 J	0.000078 J	0.000076 J	< 0.000074	< 0.000074	< 0.000074
	Cadmium	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	0.00095 J	0.00088 J	0.0011 J	0.00045 J	0.00077 J	< 0.00039	< 0.00039	< 0.00039
	Cobalt	< 0.00030	< 0.00030	< 0.00030	< 0.00030	< 0.00030	0.0081	0.0061	0.00034 J
	Lead	0.000071 J	< 0.000046	0.000054 J	< 0.000046	0.00011 J	< 0.000046	< 0.000046	< 0.000046
	Lithium	0.0033 J	0.0050 J	0.0035 J	< 0.00078	< 0.00078	0.0065 J	0.0064 J	0.0041 J
	Mercury	--	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014
	Molybdenum	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	0.0025 J
	Combined Radium - 226/228	0.632 U	0.597 U	0.262 U	1.11 U	1.88	1.61	1.24 U	0.45 U
	Selenium	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
	Thallium	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052

Table 5 - Groundwater Analytical Data - February and March 2020
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - A-3, A, B, B' and R6 CCR Landfill

Analyte	YGWA-39	YGWA-40	YGWA-40	YGWC-23S	YGWC-23S	YGWC-24S	YGWC-24S	YGWC-33S	
	3/25/2020	2/12/2020	3/24/2020	2/17/2020	3/26/2020	2/13/2020	3/26/2020	2/14/2020	
Appendix III	pH	5.78	5.30	5.29	5.84	5.69	5.69	5.51	3.76
	Boron	0.043 J	--	0.088 J	--	0.94	--	0.033 J	--
	Calcium	2.7	--	4.8	--	5.6	--	1.7	--
	Chloride	1.9	--	4.7	--	1.6	--	5.4	--
	Fluoride	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.23 J
	Sulfate	14.3	--	25.2	--	36.5	--	< 0.50	--
	Total Dissolved Solids	158	--	84.0	--	110	--	67.0	--
Appendix IV	Antimony	0.0014 J	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	0.0013 J
	Arsenic	0.0012 J	0.0034 JB	< 0.00035	0.0019 J	0.0012 J	< 0.00035	0.0015 J	0.0027 J
	Barium	0.014	0.035	0.033	0.024	0.027	0.016	0.019	0.013
	Beryllium	< 0.000074	0.00018 J	0.00022 J	0.000081 J	0.000090 J	0.00014 J	0.00016 J	0.016
	Cadmium	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.0021 J
	Chromium	< 0.00039	0.00065 J	0.00055 J	0.00087 J	0.0019 J	< 0.00039	0.00094 J	0.00078 J
	Cobalt	0.00034 J	< 0.00030	< 0.00030	< 0.00030	< 0.00030	< 0.00030	< 0.00030	0.023
	Lead	0.000051 J	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	0.000053 J	0.0010 J
	Lithium	0.0049 J	< 0.00078	< 0.00078	0.0021 J	0.0021 J	< 0.00078	< 0.00078	0.024 J
	Mercury	--	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014
	Molybdenum	0.0020 J	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095
	Combined Radium - 226/228	0.377 U	1.83	1.27 U	1.46	0.281 U	0.474 U	0.511 U	1.01 U
	Selenium	< 0.0013	0.0020 J	0.0020 J	0.020	0.024	< 0.0013	< 0.0013	0.015
	Thallium	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	0.00019 J

Table 5 - Groundwater Analytical Data - February and March 2020
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - A-3, A, B, B' and R6 CCR Landfill

Analyte	YGWC-33S	YGWC-36	YGWC-36	YGWC-38	YGWC-38	YGWC-41	YGWC-41	YGWC-42	YGWC-42	
	3/25/2020	2/14/2020	3/25/2020	2/14/2020	3/25/2020	2/14/2020	3/25/2020	2/14/2020	3/25/2020	
Appendix III	pH	3.86	5.71	5.49	4.84	4.89	4.84	4.87	5.80	5.53
	Boron	5.3	--	0.11	--	9.3	--	7.9	--	15.5
	Calcium	97.8	--	10.6	--	124	--	29.6	--	107
	Chloride	4.2	--	6.7	--	4.0	--	2.7	--	3.2
	Fluoride	0.36	--	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Sulfate	475	--	61.2	--	483	--	214	--	642
	Total Dissolved Solids	839	--	184	--	883	--	428	--	1200
Appendix IV	Antimony	< 0.00027	0.0027 J	0.0011 J	0.00031 J	0.00063 J	< 0.00027	< 0.00027	< 0.00027	< 0.00027
	Arsenic	0.0030 J	0.0026 J	< 0.00035	0.0021 J	0.00068 J	0.0014 J	0.0010 J	0.0033 J	0.0013 J
	Barium	0.012	0.092	0.026	0.019	0.018	0.024	0.021	0.031	0.030
	Beryllium	0.017	0.00019 J	0.00022 J	0.0042	0.0038	0.0026 J	0.0026 J	< 0.000074	< 0.000074
	Cadmium	0.0020 J	0.00017 J	0.00019 J	0.0021 J	0.0018 J	0.00020 J	0.00018 J	0.00025 J	0.00021 J
	Chromium	0.0012 J	< 0.00039	0.00074 J	0.0023 J	0.00065 J	< 0.00039	0.00039 J	< 0.00039	0.0013 J
	Cobalt	0.020	0.0025 J	0.00038 J	< 0.00030	< 0.00030	< 0.00030	< 0.00030	0.0019 J	0.0018 J
	Lead	0.00083 J	0.00016 J	0.00010 J	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	0.000047 J
	Lithium	0.029 J	0.0024 J	0.0032 J	0.0076 J	0.0081 J	0.0029 J	0.0029 J	0.038	0.045
	Mercury	--	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014	--
	Molybdenum	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095
	Combined Radium - 226/228	1.44	1.06 U	1.22 U	1.12 U	0.321 U	1.16	0.568 U	1.56	1.17 U
	Selenium	0.022	0.0020 J	0.0024 J	0.11	0.099	0.059	0.057	0.040	0.046
	Thallium	0.00015 J	0.00010 J	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052

Table 5 - Groundwater Analytical Data - February and March 2020
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - A-3, A, B, B' and R6 CCR Landfill

Analyte	YGWC-43	YGWC-43	YGWC-49	YGWC-49	
	2/17/2020	3/25/2020	2/17/2020	3/25/2020	
Appendix III	pH	5.93	5.79	5.82	5.69
	Boron	--	2.4	--	0.012 J
	Calcium	--	12.1	--	13.2
	Chloride	--	1.8	--	4.1
	Fluoride	0.15 J	0.073 J	< 0.050	< 0.050
	Sulfate	--	164	--	76.1
	Total Dissolved Solids	--	352	--	130
Appendix IV	Antimony	< 0.00027	0.00031 J	< 0.00027	0.00053 J
	Arsenic	< 0.00035	0.00070 J	0.0028 J	0.00086 J
	Barium	0.037	0.033	0.071	0.071
	Beryllium	0.00034 J	0.00034 J	0.00011 J	0.00013 J
	Cadmium	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	< 0.00039	< 0.00039	0.0020 J	0.0019 J
	Cobalt	0.00088 J	0.0016 J	< 0.00030	< 0.00030
	Lead	< 0.000046	0.000075 J	0.000071 J	0.000059 J
	Lithium	0.015 J	0.016 J	0.0032 J	0.0037 J
	Mercury	< 0.00014	--	< 0.00014	--
	Molybdenum	< 0.00095	0.0015 J	< 0.00095	< 0.00095
	Combined Radium - 226/228	4.19	3.04	1.52	1.2 U
	Selenium	< 0.0013	< 0.0013	0.0068 J	0.0085 J
Thallium	< 0.000052	< 0.000052	< 0.000052	< 0.000052	

Notes:

1. Analytical results are reported in milligrams per liter except for combined radium results, which are reported in picoCuries per liter and pH in standard units.
 2. Appendix III = Indicator parameters evaluated during Detection Monitoring.
 3. Appendix IV = Parameters evaluated during Assessment Monitoring.
- Not analyzed for this constituent.
< Analyte was not detected above the laboratory method detection limit (MDL).
NA = Not applicable; analyte does not have an MCL, but will be further evaluated statistically, as required by the USEPA Coal Combustion Residuals rule.

Laboratory Qualifiers:

- B = Analyte was detected in associated method blank.
D6 = The precision between the sample and sample duplicate exceeded laboratory control limits.
J = Estimated concentration above the method detection limit and below the reporting limit.
U - the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not

**Table 6 - Background Levels and Groundwater Protection Standards
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Plant Yates - AP-3, A, B, B' and R6 CCR Landfill**

Constituent	Units	Background	Federal GWPS	State GWPS
March 2020 (AP-3, A, B, B', R6 Landfill)				
Antimony	mg/L	0.0035	0.006	0.006
Arsenic	mg/L	0.005	0.010	0.010
Barium	mg/L	0.067	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.0025	0.005	0.005
Chromium	mg/L	0.010	0.100	0.100
Cobalt	mg/L	0.013	0.013	0.013
Fluoride	mg/L	0.320	4	4
Lead	mg/L	0.005	0.015	0.005
Lithium	mg/L	0.030	0.040	0.030
Mercury	mg/L	0.0005	0.002	0.002
Molybdenum	mg/L	0.010	0.100	0.010
Selenium	mg/L	0.010	0.050	0.050
Thallium	mg/L	0.001	0.002	0.002
Combined Radium - 226/228	pCi/L	6.92	6.92	6.92
October 2019 (R6 Landfill)				
Antimony	mg/L	0.003	0.006	0.006
Arsenic	mg/L	0.005	0.010	0.010
Barium	mg/L	0.042	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.0001	0.005	0.005
Chromium	mg/L	0.010	0.100	0.100
Cobalt	mg/L	0.013	0.013	0.013
Fluoride	mg/L	0.300	4	4
Lead	mg/L	0.005	0.015	0.005
Lithium	mg/L	0.050	0.040	0.030
Mercury	mg/L	0.0005	0.002	0.002
Molybdenum	mg/L	0.010	0.100	0.010
Selenium	mg/L	0.010	0.050	0.050
Thallium	mg/L	0.001	0.002	0.002
Combined Radium - 226/228	pCi/L	6.92	6.92	6.92

Notes:

1. Site background: Tolerance limits calculated from pooled upgradient well data. October 2019 background value presented for R6 Landfill.
2. Federal GWPS = Groundwater Protection Standard per 40 CFR §257.95(h).
3. The background tolerance limit (TL) used to evaluate the lithium State GWPS equals the laboratory reporting limit (RL). Per the SAP, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results. Using this approach, the TL equals the highest value reported, which is the laboratory RL.

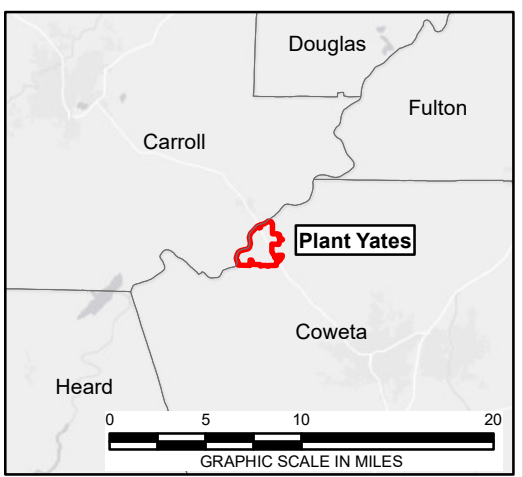
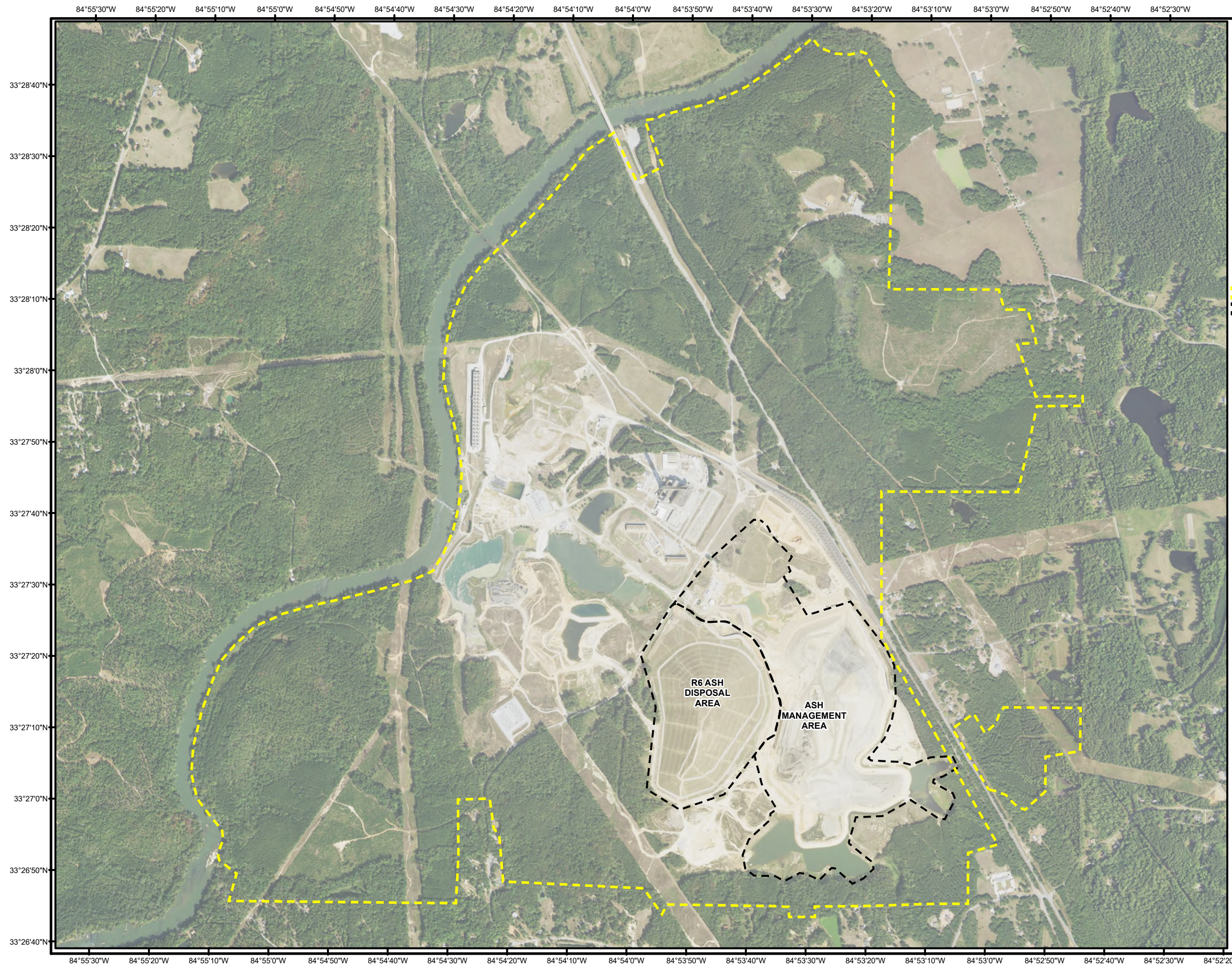
Acronyms and Abbreviations:



mg/L = milligrams per liter
pCi/L = picocuries per liter

FIGURES

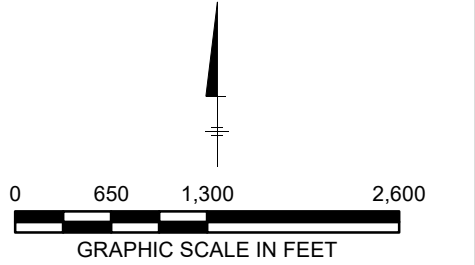


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LEGEND
 APPROXIMATE PROPERTY BOUNDARY
 PERMITTED UNIT BOUNDARY

NOTE:
AERIAL IMAGE SOURCE: NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.

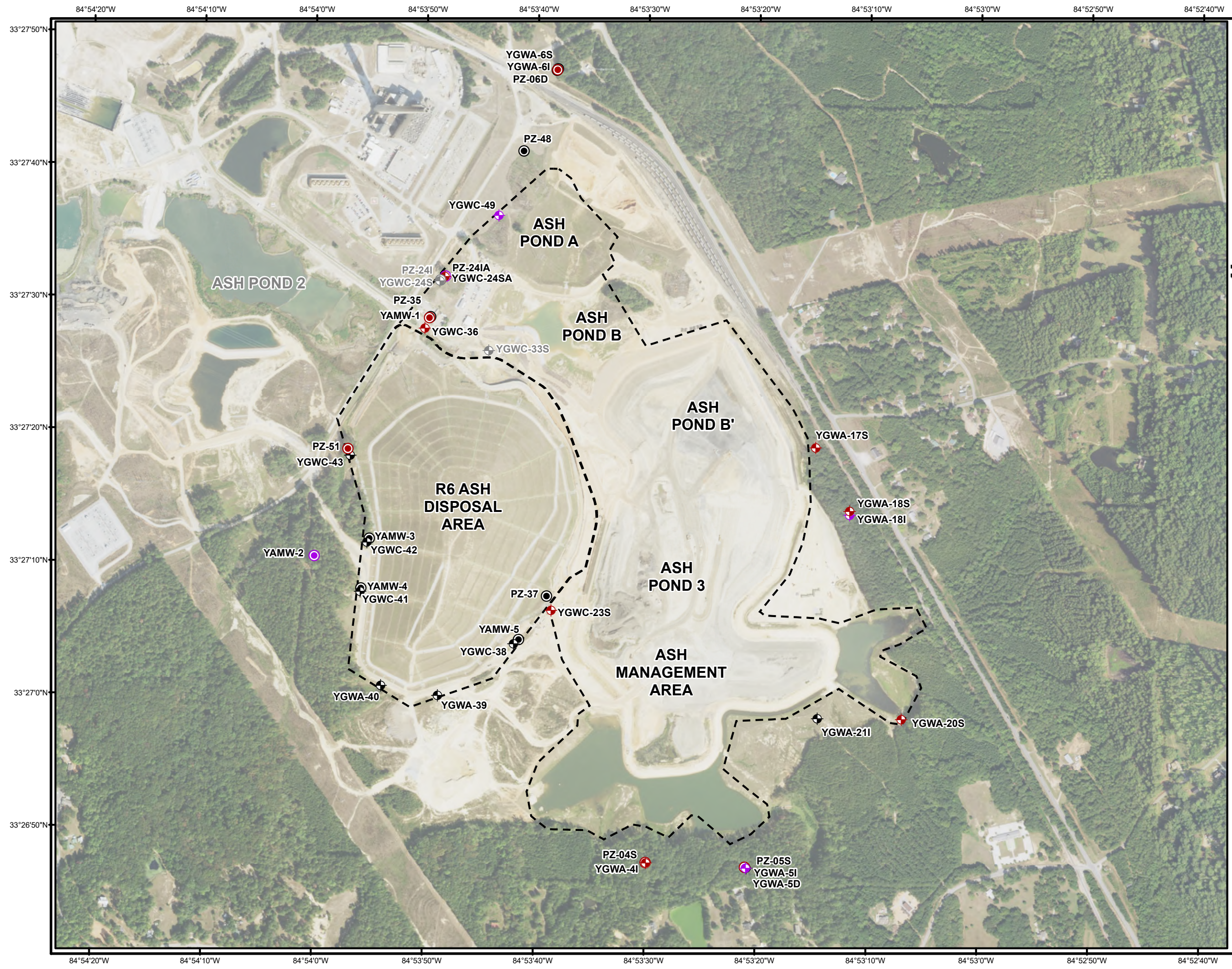


COORDINATE SYSTEM: NAD 1983 STATEPLANE
GEORGIA WEST FIPS 1002 FEET

 **Georgia Power**
PLANT YATES
2020 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

SITE LOCATION MAP

 Design & Consultancy
for natural and
built assets **FIGURE 1**

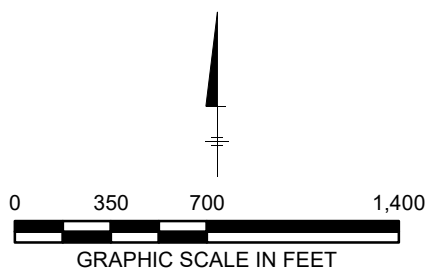


LEGEND

- SAPROLITE NETWORK MONITORING WELL LOCATION
- TRANSITION NETWORK MONITORING WELL LOCATION
- BEDROCK NETWORK MONITORING WELL LOCATION
- SAPROLITE NON-NETWORK WELL/PIEZOMETER
- TRANSITION NON-NETWORK WELL/PIEZOMETER
- BEDROCK NON-NETWORK WELL/PIEZOMETER
- ABANDONED MONITORING WELL
- ABANDONED NON-NETWORK WELL/PIEZOMETER
- PERMITTED UNIT BOUNDARY

NOTE:

1. YGWC-33S WAS ABANDONED IN JUNE 2020.
2. YGWC-24SA WAS INSTALLED AS REPLACEMENT WELL FOR YGWC-24S IN JUNE 2020.
3. PZ-24IA WAS INSTALLED AS REPLACEMENT WELL FOR PZ-24I IN JUNE 2020.
4. AERIAL IMAGE SOURCE: NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.



COORDINATE SYSTEM: NAD 1983 STATEPLANE
GEORGIA WEST FIPS 1002 FEET

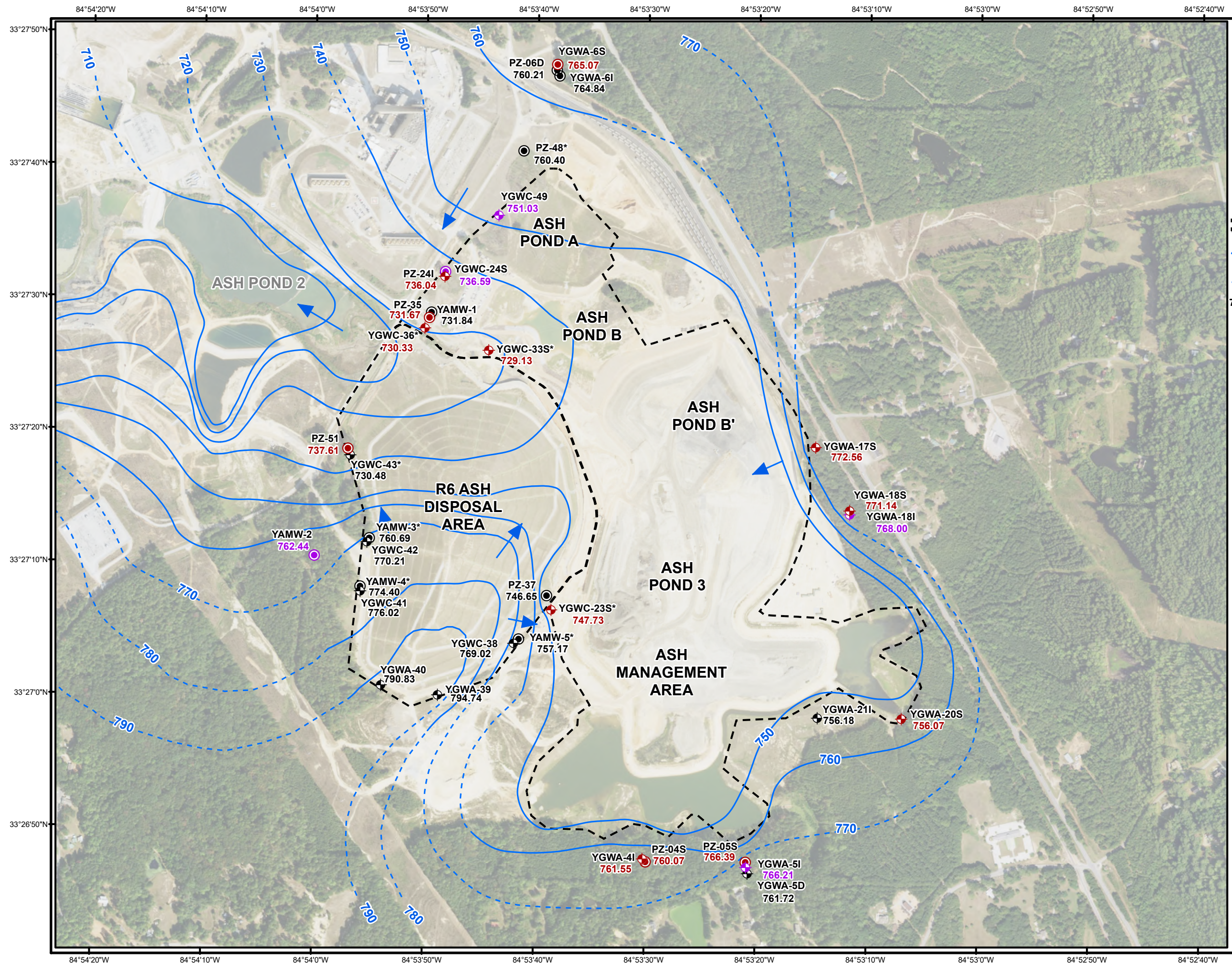
Georgia Power
PLANT YATES
**SEMI-ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT – 1H2020**

WELL LOCATION MAP

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FIGURE
2

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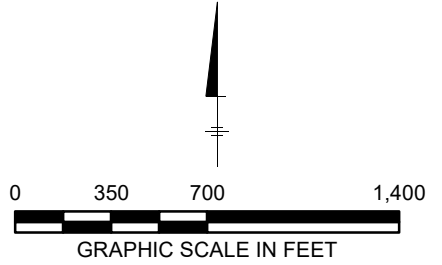


LEGEND

- SAPROLITE NETWORK MONITORING WELL LOCATION
- TRANSITION NETWORK MONITORING WELL LOCATION
- BEDROCK NETWORK MONITORING WELL LOCATION
- SAPROLITE NON-NETWORK WELL/PIEZOMETER
- TRANSITION NON-NETWORK WELL/PIEZOMETER
- BEDROCK NON-NETWORK WELL/PIEZOMETER
- PERMITTED UNIT BOUNDARY
- APPROXIMATE POTENTIOMETRIC CONTOUR (FEET) DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- 773.31** GROUNDWATER ELEVATION (FEET)

NOTES:

1. * = DEPTH TO WATER RECORDED FROM TRANSDUCER READING ON MARCH 17 AT 12PM.
2. SHALLOW GROUNDWATER ELEVATIONS ARE DERIVED FROM SOIL COMPRISED OF SAPROLITE, RANGING FROM 15 - 60 FEET BELOW GROUND SURFACE.
3. BEDROCK WELLS YGWA-40, YGWA-39, YGWC-38, YGWC-41, YGWC-42 USED FOR CONTOURING. ALL OTHER BEDROCK WELLS NOT USED TO CREATE CONTOURS.
4. SAPROLITE WELL GROUNDWATER ELEVATIONS WERE USED FOR CONTOURING FOR SAPROLITE/TRANSITION ZONE/BEDROCK WELL CLUSTER LOCATIONS.
5. AERIAL IMAGE SOURCE: NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.



COORDINATE SYSTEM: NAD 1983 STATEPLANE
GEORGIA WEST FIPS 1002 FEET

Georgia Power
PLANT YATES
SEMI-ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT - 1H2020

**GROUNDWATER ELEVATION MAP,
FEBRUARY 2020**

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FIGURE
3

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APPENDIX A

Semi-Annual Remedy Selection and Design Progress Report





SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT

Plant Yates – AP-3, A, B, and B'/ R6 CCR Landfill
Newnan, Georgia

August 2020

SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT

Georgia Power Company
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Table 2 Summary of Nature and Extent Delineation Analytical Results
Table 3 Remedy Evaluation Summary

FIGURE

Figure 1 Appendix IV GWPS Exceedances
Figure 2 Cross-Section Location Map
Figure 3 Cross-Section A-A' and B-B'
Figure 4 Cross Section C-C' and D-D'
Figure 5 Selenium Iso-Concentration Map
Figure 6 YGWC-33S Concentration Trends
Figure 7 YGWC-38 Concentration Trends
Figure 8 YGWC-41 Concentration Trends

ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis, Inc.
ABA	acid base accounting
ACC	Atlantic Coast Consulting, Inc.
ACM	Assessment of Corrective Measures
AMA	Ash Management Area
AP-A/B/B'/3	Ash Ponds A, B, B', and 3
bgs	below ground surface
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
COI	constituent of interest
CSM	conceptual site model
EPD	Environmental Protection Division
ft	feet
Georgia Power	Georgia Power Company
GWPS	Groundwater Protection Standard
ISS	In Situ Stabilization/Solidification
MNA	monitored natural attenuation
PRB	permeable reactive barrier
SSI	statistically significant increase
SSL	statistically significant level
TDS	total dissolved solids
USEPA	United States Environmental Protection Agency
XRD	x-ray diffraction

1 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) (CCR Rule or The Rule), and on behalf of the Georgia Power Company (Georgia Power), Arcadis has prepared this Semiannual Remedy Selection and Design Progress Report (Semiannual Progress Report) for Plant Yates, Ash Ponds 3, A, B, and B' (AP-A/B/B'/3) and R6 CCR Landfill (collectively the site) pursuant to 40 CFR § 257.97(a) and Georgia Environmental Protection Division (GAEPD) Rule 391-3-4.10(6)(a). This Semiannual Progress Report was prepared to document activities conducted since submittal of the *Supplemental Semiannual Remedy Selection and Design Progress Report* (Atlantic Coast Consulting, Inc. [ACC] 2020) and the *Assessment of Corrective Measures (ACM) Report* (ACC 2019a). Because the Supplemental Semiannual Report was submitted in January of 2020, future submittal dates for semiannual ACM reports such as this one are aligned with the submittal schedule for routine semiannual reporting for groundwater monitoring and corrective action activities.

To support the ACM and development of the remedy selection, this Semiannual Progress Report summarizes the nature and extent of constituents determined to be present at statistically significant levels (SSLs) exceeding applicable reference groundwater protection standards (GWPS) for Appendix IV CCR constituents. Based on the most recent groundwater monitoring report, SSLs have been determined for the following locations and constituents, as shown on **Figure 1**:

- YGWC-33S (beryllium and cobalt) at AP-A/B/B'/3
- YGWC-38 (beryllium and selenium) at the R6 CCR Landfill
- YGWC-41 (selenium) at the R6 CCR Landfill.

The beryllium and cobalt present at YGWC-33S have been delineated by downgradient wells within the permitted unit boundary. YGWC-33S has subsequently been abandoned and there are no SSLs of beryllium or cobalt in the remaining monitoring well network for AP-A/B/B'/3 requiring corrective action. The evaluation and discussion of potential corrective measures for beryllium and cobalt are provided in this report proactively for possible future exceedances. If future exceedances occur, the corrective actions would be adapted to address them. Pursuant to 40 CFR § 257.97, Georgia Power is evaluating the potential corrective measures presented in the ACM to identify an appropriate remedy or combination of remedies as soon as feasible.

The initial ACM submitted in June 2019 and subsequent updates in December 2019 and January 2020 presented the following corrective measures as potentially feasible for use at the site:

1. Geochemical Manipulation (In-Situ Injection)
2. Hydraulic Containment
3. In Situ Stabilization/Solidification (ISS)
4. Monitored Natural Attenuation (MNA)
5. Subsurface Vertical Barrier Walls

6. Permeable Reactive Barrier
7. Phytoremediation.

This list is further refined in this Semiannual Progress Report based on site data obtained during on-site investigations and further evaluation of existing data.

2 SUMMARY OF WORK COMPLETED

This section summarizes work completed from February through August 2020 to define the nature and extent of CCR constituents present at SSLs exceeding GWPS, activities to close the CCR impoundments and additional activities undertaken to evaluate and screen corrective measures for beryllium, cobalt, and selenium.

2.1 Nature and Extent Delineation

Groundwater monitoring has been performed for AP-A/B/B'/3 since June 2016 and at R6 CCR Landfill since March 2019 pursuant to detection and assessment monitoring programs required by 40 CFR § 257.94 and 40 CFR § 257.95, respectively.

Georgia Power initiated an ACM on January 13, 2019. Statistical analysis of data collected and reported in the semiannual groundwater monitoring reports to date identified beryllium, cobalt, and selenium SSLs at AP-A/B/B'/3-R6.

Data collected from downgradient horizontal and vertical delineation wells (PZ-35 and YAMW-1, respectively) delineate the downgradient extent of beryllium and cobalt SSLs at YGWC-33S (Table 2). YGWC-33S was abandoned in June 2020 because it was installed within the permitted boundary and not suitably located to detect groundwater flow away from the AP-A/B/B'/3 boundary. With the removal of YGWC-33S from the network, the compliance well YGWC-36 fulfills the purpose of a downgradient compliance well along this flowpath. Closure by removal activities in the R6 ditch necessitated abandonment of YGWC-36 on July 20, 2020. A replacement well will be installed prior to the upcoming assessment monitoring event, scheduled for Q3 2020.

Statistical analysis reports of data collected in October 2019 and March 2020 identified SSLs for beryllium in YGWC-38, as well as selenium in wells YGWC-38 and YGWC-41 (**Table 1**). An ACM at R6 was initiated on July 7, 2020. In November 2019, assessment groundwater monitoring well YAMW-4 was constructed to vertically assess YGWC-41. YAMW-2 was constructed to horizontally assess YGWC-41, and YAMW-5 was constructed to vertically assess YGWC-38, while existing downgradient well YGWC-36 provides horizontal delineation. Results from the additional characterization wells are presented in **Table 2**, and results of monitoring network wells are presented in Table 5 of the main body of this report. The selenium SSL at YGWC-41 is horizontally delineated by YAMW-2 and YGWC-42. Selenium is vertically delineated by YAMW-4. Selenium and beryllium SSLs at YGWC-38 were vertically delineated by YAMW-5. Selenium and beryllium are horizontally delineated by YGWC-23S and downgradient monitoring well YGWC-36 on Dyer Road). In response to comments on the 2019 Assessment of Corrective Measures, geologic cross-sections and a beryllium iso-concentration map for AP-3, A, B, and B' were submitted to the Georgia Environmental Protection Division (EPD) on January 15, 2020. **Figures 2 - 4** provide cross-section supplements to that submittal pertinent to the R6 CCR Landfill. An iso-concentration map for selenium is provided in **Figure 5**. Concentrations of beryllium from the March 2020 sampling event are

below the GWPS in all wells at the site; consequently, no iso-concentration map was prepared for beryllium.

Lab reports for data collected from delineation wells are provided in Appendix C of the 2020 First Semiannual Groundwater Monitoring and Corrective Action Report.

2.2 Closure Activities

Source control is being implemented as part of the closure process and not specifically intended as a corrective measure. However, there is a strong potential for source control to limit future impact and improve groundwater quality. The following source control measures are underway or complete for the ash ponds and R6 CCR Landfill:

- Ash Pond A excavation began in October 2014 and was completed in July 2015. Excavated materials were consolidated in the R6 CCR landfill.
- Water management for excavation of Ash Pond B began in January 2018. Excavation of Ash Pond B also began in January 2018 and is ongoing. Most of the ash excavation was completed in September 2019, however, final certification of removal has not been completed for the permitted area.
- R6 CCR landfill capping began in October 2015 and was completed during the 4th quarter of 2016. Final closure certification has not been submitted for the R6 CCR landfill due to final flume tie-in to the surface water drainage ditch currently being constructed along the northern edge of the R6 CCR landfill

Appendix D of the First 2020 Semiannual Groundwater Monitoring and Corrective Action Report contains historical groundwater analytical data, which is summarized here to understand how groundwater conditions are changing in conjunction with closure activities as part of the groundwater remedy.

Appendix III and IV parameters have been monitored in the ash pond downgradient monitoring network since 2017. Observed concentrations of Appendix III parameters (boron, chloride, sulfate, and total dissolved solids (TDS)) have been decreasing at YGWC-33S since water was managed at Ash Pond B in conjunction with excavation beginning in 2018 (**Figure 6**). For example, boron decreased from 15.4 mg/L in April 2019 to 5.3 mg/L in March 2020, indicating attenuation of CCR constituents in groundwater as closure activities progress. The groundwater at YGWC-33S exhibits a low pH, with an overall slightly decreasing trend in pH values ranging from a maximum of 5.07 in 2016 to 3.86 in March 2020. Beryllium was initially 0.012 mg/L in June 2016, increased following the start of water management in 2018 to a maximum of 0.025 mg/L in September 2019, and subsequently has decreased to 0.017 mg/L in March 2020. Cobalt followed a similar pattern. Cobalt was initially 0.0011 mg/L in June 2016, increased following the start of water management in 2018 to a maximum of 0.031 mg/L in April 2019, and subsequently has decreased to 0.02 mg/L in March 2020.

Appendix III and IV parameters have been monitored in the R6 CCR Landfill monitoring network since 2017. In the R6 CCR Landfill area, decreasing concentration trends are observed on the east side of the unit at YGWC-38 (**Figure 7**). At this location, concentrations of boron, sulfate, and TDS have been decreasing through time, with concentrations of chloride and pH values remaining stable. For example, boron concentrations decreased from a maximum of 22.7 mg/L in June of 2018 to 9.3 mg/L in March 2020. The greatest concentration of selenium in the R6 CCR Landfill monitoring network was measured

YGWC-38 with a maximum concentration of 0.265 mg/L in October 2017; however, concentrations decreased to 0.099 mg/L by March 2020. Beryllium has also decreased from a maximum of 0.0059 mg/L in June 2018 to 0.0038 mg/L in March 2020, less than the GWPS of 0.004 mg/L. On the west side of the R6 CCR Landfill, boron, sulfate, and TDS concentrations have declined at YGWC-41 (**Figure 8**). For example, boron decreased from a maximum of 15.2 mg/L in February 2018 to 7.9 mg/L in March 2020. Selenium concentrations are lower at YGWC-41 on the west side of the unit than at YGWC-38 on the east side of the unit. However, the concentrations of selenium are decreasing slowly from a maximum of 0.071 mg/L in February 2018 to 0.057 mg/L in March 2020.

Closure activities at Plant Yates, including management and reduction of ponded water, excavation and consolidation of CCR, and capping, can reduce CCR impacts to groundwater. The removal of ponded water at Ash Pond B and excavation of the material at Ash Ponds A and B removes the source of CCR constituents, which will likely enhance the groundwater quality in the area. Capping of the R6 CCR Landfill and future completion of capping of the consolidated ash pond materials in the AMA also eliminates the infiltration of water through CCR materials to groundwater. Groundwater monitoring data to date indicate a significant reduction in the concentrations of target constituents such as boron, sulfate, beryllium, cobalt, and selenium due to pond closure activities progressing at Plant Yates since 2014. Additional improvements are anticipated as the closure activities are completed and conditions with the closed impoundments are established, although there could be fluctuations in concentrations of CCR constituents over time as the new conditions reach long term equilibrium. To address the potential fluctuations in concentrations of CCR constituents over time, Georgia Power proactively initiated adaptive site management, as outlined in the ACM Report (ACC 2019a). Georgia Power will continue its data collection efforts as necessary to support refinement of the conceptual site model (CSM) and to further evaluate the feasibility of each corrective measure evaluated and retained in this Semiannual Remedy Selection Progress Report.

2.3 Summary of Corrective Measures

The corrective measures proposed in the ACM continue to be evaluated to address initially identified SSL for beryllium and subsequently identified SSLs for cobalt and selenium. In the 2019 ACM, each individual corrective measure was evaluated relative to criteria specified in 40 CFR § 257.96(c) and 40 CFR § 257.97(b). This section provides further evaluation of the available technologies for the site in Section 2.3.1 and provides a screening and list of retained technologies based on additional evaluation of existing data. Sections 2.3.2 and 2.3.3 provide an assessment of the retained technologies for cobalt and selenium SSLs, which are being evaluated for the first time in this report. The corrective measures proposed in the ACM were evaluated to address the SSLs of beryllium and selenium in groundwater at and downgradient of the compliance boundary and potential future exceedances of cobalt in the remaining compliance monitoring network.

2.3.1 Additional Screening of Corrective Measures

Building on the evaluation of potential corrective measures in the ACM, the options were further evaluated based on site-specific hydrogeological information and the criteria of ease of implementation, performance, and reliability. The evaluation and a screening of options are summarized in **Table 3** and discussed in this section.

Geochemical Manipulation (In-situ Injection)

The placement of chemical reactants within areas of high constituent concentrations to immobilize dissolved-phase concentrations through precipitation, oxidation/reduction, or sorption can be an effective approach to reducing downgradient migration of dissolved constituents. One of the keys for effective implementation, performance, and reliability is the ability to distribute reagents into the formation to create a reactive zone in which target constituents such as beryllium, selenium, and cobalt react with injected reagents and form relatively insoluble complexes in the subsurface. The partially weathered rock transition zone is more transmissive than the overlying saprolite and the underlying bedrock. For these reasons, reagent distribution is particularly favorable in the transition zone but can also be successful in the overlying saprolite and, to a lesser extent, bedrock. Geochemical manipulation is an implementable, potentially effective and reliable option retained for further consideration. Progress and plans for additional data collection to evaluate this option are provided in Section 3.

Hydraulic Containment

Hydraulic containment involves extracting groundwater from wells or collection trenches to depress the water table and locally control the flow of groundwater. The proposed technology for a pump-and-treat system would include the installation of vertical and/or angled groundwater extraction wells downgradient of the source area. Groundwater extraction wells are feasible to install and can be designed and screened in the unconsolidated saprolite, transition zone, and fractured bedrock materials at the site for effective hydraulic capture. Groundwater extraction wells installed in bedrock can alternatively be completed as open-hole borings to maximize groundwater removal from multiple water-bearing fracture zones at varying depths. Due to the feasibility and effectiveness of groundwater extraction in the saprolite, transition zone, and fractured bedrock at the site, pump and treat is retained for further evaluation.

In-Situ Stabilization/Solidification

The ISS technology can be used to immobilize compounds in unconsolidated wet or dry media using reagents to produce a stable, solidified mass. ISS restricts constituent migration by encapsulating the waste within a low-permeability, monolithic structure. ISS is accomplished by mixing soil with a binding agent (i.e., Portland cement and other admixtures) that is homogenized by mechanical mixing processes. ISS does not destroy constituents present in soil, but incorporates them into a dense, homogeneous, low-porosity structure that greatly reduces their mobility.

ISS could be applied to aquifer matrix in groundwater flow zones to reduce CCR constituent mobility; however, it is less applicable than other technologies evaluated. Given the relative lack of applicability for groundwater in comparison to the other technologies, ISS was not retained for further consideration.

Monitored Natural Attenuation

MNA has been identified as the reliance on natural attenuation processes, within the context of a controlled and monitored site clean-up approach, to achieve site-specific remediation objectives within a reasonable timeframe (Office of Solid Waste and Emergency Response 1999, Ford et. al 2007). The natural processes at work include a variety of physical, chemical, and/or biological processes that, under

favorable conditions, act to reduce the mass, toxicity, mobility, volume, or concentration of constituents in soil and/or groundwater.

In the groundwater beneath and downgradient of AP-A/B/B'/3, constituent trend analysis and geochemical data along the groundwater flow path indicate that the occurrence of beryllium is naturally attenuating. The well yielding SSLs of beryllium and cobalt, YGWC-33S, also yields low pH ranging from 3.27 to 5.07 with an average of 4.18. Downgradient at YGWC-36, PZ-35, and YAMW-1, the pH is higher and ranges from 5.2 to 6.3, indicating the acidity in the water at YGWC-33S is titrated by natural buffering capacity of the aquifer as groundwater migrates downgradient of YGWC-33S. This increase in pH also limits the solubility of beryllium, as beryllium hydroxide species are relatively insoluble at the pH of ambient groundwater above 4.8. The increase in pH also limits the solubility of cobalt, which as a cationic species tends to increase in sorption with increasing pH (McLaren 1986).

In the groundwater beneath and downgradient of the R6 CCR Landfill, geochemical data indicate favorable conditions for attenuation of both selenium and beryllium. Attenuation mechanisms for selenium include sorption of selenite and selenate onto geologic media including iron and aluminum oxides and kaolinite, and reduction by reactive minerals, such as green rust, to relatively insoluble elemental selenium and metal selenides (Su et al. 2007). Sorption strength increases under acidic conditions for both of the anionic selenate and selenite species (Zachara et al. 1994). The pH of the groundwater under and downgradient of the R6 CCR Landfill averages 5.5, which is acidic enough to promote sorption of anionic selenium species, while high enough to limit solubility of beryllium by formation of beryllium hydroxide. The attenuation of selenium and beryllium SSLs to below GWPS with distance (see section 2.1) indicates attenuation is occurring.

Based on the data to date, this technology is anticipated to be effective, reliable, and readily implementable. Therefore, MNA was retained for further evaluation. Plans for additional data collection to further evaluate this option are provided in Section 3.

Subsurface Vertical Barrier Walls

Physical barriers include vertical walls (e.g., grout injection, slurry walls, sheet piles) used to physically control groundwater flow through isolation or redirection, typically around or upgradient of a source area. The design and technique used to construct a barrier wall typically depend on the length of the barrier, the depth to a competent confining layer or bedrock, and cost considerations. Sheet piling, trenching, and vertical drilling are the most common methods for barrier construction. Sheet piling and trenching are typically limited to depths of approximately 50 feet below ground surface (ft bgs), and drilling techniques can achieve depths greater than 50 ft bgs. Construction of a vertical barrier would involve drilling to competent bedrock and injecting bentonite or grout into fractured bedrock, the transition zone, and saprolite flow zones.

Keying the vertical barrier into bedrock may be difficult to achieve consistently due to the complex Piedmont geology underlying the site. Competent bedrock depths typically range from 60 to 80 ft bgs at the site. Depth to competent bedrock significantly varies on a small-scale (feet to tens of feet) spatially depending on the weathering characteristics of the transition zone. Installation of an effective barrier to depths greater than 60 ft is technically feasible but would possibly encounter challenges during installation. For these reasons, the barrier may not be implementable, effective, or reliable. Accordingly, the vertical barrier technology was not retained for further consideration.

Permeable Reactive Barrier

Construction of permeable reactive barriers (PRBs) involves emplacement of reactive media below the ground surface for the purpose of intercepting and treating groundwater containing dissolved constituents of interest (COIs). The PRB media is designed to be more hydraulically conductive than the saturated media surrounding the PRB so that groundwater will flow through the PRB media with little resistance. The depth and breadth of PRBs are oriented perpendicular to groundwater flow direction so that the PRB will intercept groundwater targeted for treatment. Design of the PRB thickness considers groundwater velocity and the need to provide sufficient groundwater residence and contact time for constituents to react with PRB media.

PRBs can be installed as permanent or semi-permanent treatment units. The PRB reactive media in a permanent treatment unit is designed to remain emplaced over the needed timeframe, whereas the reactive media in a semi-permanent treatment unit is designed to be replaced periodically once it is spent. Two of the most common PRB designs are the continuous wall, which involves the installation of a trench downgradient of a source area upgradient of a receptor, and the “funnel and gate,” which involves construction of two vertical barriers that redirect groundwater flow towards the PRB.

The hydrogeology at the site presents several challenges to implementation of PRBs. Like the vertical barriers, keying the PRB into a low-permeability unit such as competent bedrock is challenging due to the complexity of the Piedmont geology, limiting the feasibility of constructing a PRB along the entire length and depth of the affected areas. Groundwater flow conditions, particularly for the R6 CCR Landfill, diverge with flow to the west and north on the west side of the unit near YGWC-41 and to the east on the eastern side of the unit near YGWC-38. The placement of an efficient PRB to intercept groundwater is difficult given the divergence of flow directions. The implementation of PRBs can also be challenged by biofouling and mineral precipitation, which reduce the effectiveness of media over time and can increase the amount of maintenance needed for media changeouts. For these reasons, PRB is not likely implementable, effective, or reliable and this corrective measure was not retained.

Phytoremediation

Phytoremediation is the direct use of various living plants as a means of hydraulic control or containment, immobilization of constituents, and/or uptake/degradation of constituents found in shallow groundwater or, if engineered, using TreeWells® in intermediate depth groundwater. This technique is often more effective when constituents are at relatively low to moderate concentrations over a large area and at depths that are accessible by plant roots. The natural growth rate of selected plant species and growing seasons can be limiting factors for the effectiveness of this technique because the technology is only effective during the active growing season of the plant. Long-term maintenance, including fertilizing, regular monitoring, and harvesting, are typically needed.

At the R6 CCR Landfill, in the vicinity of YGWC-41 and YGWC-38, phytoremediation can be effective for addressing selenium in groundwater through adsorption into plant mass or volatilization following uptake and conversion to organic species (Banuelos et al. 2002). With regards to implementation, the depth to water is approximately 30 feet, which is deeper than the typical plant root zone, but within the range of depths for which TreeWells® are applicable. However, TreeWell® installation for selenium at the R6 CCR Landfill is not readily implementable to intercept impacted groundwater. Selenium and beryllium are currently less than GWPS downgradient of the R6 CCR Landfill, but if concentrations increased to SSLs,

phytoremediation may be viable downgradient of the unit. Phytoremediation for the R6 CCR Landfill was retained for consideration if future SSLs are detected in the downgradient compliance monitoring well network.

Depth to water in the ash pond area of YGWC-33S where beryllium and cobalt are present is approximately 15 ft bgs. This depth would also likely require the use of TreeWells®, which could be combined with treatment media to immobilize beryllium and cobalt. However, neither cobalt nor beryllium are present at SSLs at the remaining monitoring wells downgradient of YGWC-33S, which would drive implementation. Phytoremediation is not warranted now but retained for further evaluation of beryllium and cobalt if downgradient wells yield SSLs in the future.

Summary

In summary, the further evaluation of the implementability, effectiveness, and reliability of the potential corrective measures in light of the site-specific hydrogeology narrowed the likely potential corrective measures to:

- Geochemical Manipulation – In-situ Treatment
- Hydraulic Containment
- MNA
- Phytoremediation (not currently applicable but retained if needed for future compliance well SSLs downgradient of AP-A/B/B'3 or R6 CCR Landfill).

These potential corrective measures, in conjunction with the source control measures in progress, are retained for further consideration and evaluation in the remedy selection process. The retained corrective measures are evaluated in Sections 2.3.2 and 2.3.3 for implementability, performance, and reliability for cobalt and selenium, which were not previously evaluated. The potential secondary impacts, beginning and completion time, institutional requirements, and other environmental and public health requirement criteria are anticipated to be the same for selenium and cobalt as those previously evaluated for beryllium.

2.3.2 Assessment of Corrective Measures for Cobalt

Cobalt was present at an SSL above the GWPS at YGWC-33S. YGWC-33S has subsequently been abandoned and there are no SSLs of cobalt in the remaining monitoring well network for AP-A/B/B'3 requiring corrective action. The evaluation and discussion of potential corrective measures for beryllium and cobalt are provided in this section in proactive planning for possible future exceedances.

Cobalt is a transition metal and typically exists aqueously in the oxidation state +II as a cation. Cobalt sorbs to iron, manganese, and aluminum oxides, aluminosilicates, carbonate minerals, and organic material at near neutral pH. Cobalt sorption decreases with decreasing pH (McLaren et al. 1986). The presence of cobalt at increased concentrations at YGWC-33S coincides with lowest pH observed at the site. Under alkaline conditions, cobalt may form insoluble hydroxides and carbonates. Under reducing conditions, cobalt may form insoluble complexes with sulfide. These mechanisms of adsorption and precipitation can be leveraged for removal of cobalt from groundwater. The retained corrective measure

options discussed in Section 2.3.1 are also potentially implementable, effective, and reliable for cobalt as follows:

- **Geochemical Manipulation:** geochemical manipulation to achieve cobalt immobilization is possible. pH adjustment through the addition of base is a candidate chemistry and would work to increase the pH to the ambient aquifer range (generally between 5.5 to 7) to increase sorption. Further increase in pH into the range of greater than 9 to 10 could precipitate cobalt as hydroxide species but would require maintenance of the elevated pH for reliability.
- **Hydraulic Containment:** cobalt is amenable to groundwater extraction given moderate mobility and treatment via adsorptive or cation exchange technologies.
- **MNA:** sorption onto iron, manganese, and aluminum oxides is likely an effective and reliable natural attenuation mechanism at the site, enhanced by neutralization of the acidity in the vicinity of YGWC-33S by natural buffering capacity in the aquifer minerals.
- **Phytoremediation:** phytoremediation maybe be viable via use of uptake by plants, incorporation of reactive media into a TreeWell® system, or to achieve hydraulic control without the need for an above-ground water treatment system and infrastructure.

The retained technologies, in situ chemical immobilization, MNA, hydraulic containment, and phytoremediation are applicable for cobalt, if action is needed for potential future SSLs in the remaining downgradient compliance network.

2.3.3 Assessment of Corrective Measures for Selenium

SSLs for selenium have been measured at YGWC-38 and YGWC-41 (**Figure 1**).

Selenium is a redox reactive element present in the aquifer system primarily as selenite (SeO_3^{2-}), selenate (SeO_4^{2-}), elemental $\text{Se}(0)$, or selenide. Selenium occurs in CCR material as selenium salts, selenite (SeO_3^{2-}) and selenate (SeO_4^{2-}) (Zachara et al. 1994). The following discussion of the factors influencing the behavior of selenium was modified from Zachara et al. (1994). The oxidation state of selenium affects solubility and mobility. Elemental selenium and metal selenides are relatively insoluble. Selenite and selenate are relatively soluble, and mobility is affected by sorption to iron and aluminum oxides and kaolinite. Selenite sorbs more strongly than selenate. In the presence of sulfate, selenate is more mobile and less likely to attenuate due to competition for sorption. This chemistry of selenium and how it remains soluble or is removed from groundwater can be leveraged for removal of selenium from groundwater and highlights the importance of understanding the chemistry of selenium at Plant Yates for the corrective measures evaluation.

The retained corrective measure options are also potentially implementable, effective, and reliable for selenium as follows:

- **Geochemical Manipulation:** chemistry to manipulate to achieve selenium immobilization is available via in situ reduction or placement of sorbents such as iron oxides. Bench and pilot studies would be needed to evaluate site-specific effectiveness and reliability.
- **Hydraulic Containment:** selenium is amenable to groundwater extraction given moderate mobility and treatment via biological reductive and ion exchange technologies.

- MNA: attenuation mechanisms for selenium include sorption of selenite and selenate onto geologic media, including iron and aluminum oxides and kaolinite, and reduction by reactive minerals, such as green rust, to relatively insoluble elemental selenium and metal selenides (Su et al. 2007).
- Phytoremediation: mechanisms for phytoremediation include adsorption into plant mass or volatilization following uptake and conversion to organic species (Banuelos et al. 2002) or incorporation of reactive media into a TreeWell® system.

In situ chemical immobilization, MNA, groundwater treatment, and phytoremediation were evaluated to determine a potential effective corrective action for selenium. Based on the observed low or decreasing selenium concentrations observed at YGWC-38 and YGWC-41, possible naturally occurring mechanisms for the decrease in concentration are taking place. **Table 3** summarizes the evaluation of each corrective action for the mitigation of selenium concentrations above the GWPS.

2.4 Field Investigation and Data Collection

Data collection and evaluation of samples collected before January 2020 are reported in the *Supplemental Semiannual Remedy Selection and Design Progress Report* (ACC 2020a). In June 2020, groundwater and soil samples were collected to support the remedy selection process within specific areas of the AP-A/B/B'/3 (specifically, within the vicinity of YGWC-33S). A groundwater sample from YGWC-33S was collected before abandonment of the monitoring location. In addition, borehole materials were collected from the newly installed monitoring location YGWC-24S (replacement). The purpose of additional sample collection and analysis of soil and groundwater for remedy selection is discussed in Section 3.

3 PLANNED ACTIVITIES AND SCHEDULE

As part of the ongoing closure of Ash Pond 3, A, B, and B', water management has been initiated. Georgia Power proactively initiated adaptive site management, as outlined in the ACM Report (ACC 2019a), to support the remedial strategy and address potential changes in site conditions as appropriate. The adaptive site management approach may be adjusted over the site's life cycle as new site information and technologies become available. To this end, Georgia Power will continue its data collection efforts as necessary to support refinement of the CSM and to further evaluate the feasibility of each corrective measure retained in this Semiannual Remedy Selection Progress Report. Once sufficient data become available to determine the best corrective measures or possible combination of corrective measures that would provide an effective groundwater remedy, necessary steps will be taken to implement a remedy for the AP-A/B/B'/3 and R6 Landfill in accordance with 40 CFR § 257.98.

To achieve this goal and further the understanding of site conditions to support selection of the remedy from among the retained corrective measures, the following activities, organized by general site area, are recommended for 2020:

- Ash Pond and Surrounding Area: Groundwater monitoring of the remaining compliance well network will continue. There are no current SSLs in this monitoring network, but if SSLs do arise, corrective measures will be taken.
- R6 CCR landfill:

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- Continued routine groundwater sampling at Appendix III and Appendix IV constituent delineation locations to analyze and evaluate trends for effectiveness of source control and plume stability to support the MNA evaluation.
- Selenium speciation in groundwater to evaluate mechanisms of natural attenuation and further evaluate reaction chemistries available for geochemical manipulation.
- XRD analysis of borehole solids to potentially identify sorptive and reactive minerals. This information will be used to evaluate the mechanism of natural attenuation.
- Bench-scale sorption testing to evaluate mechanism, capacity, and stability of the sorption attenuation mechanism for selenium.
- Evaluation of the flowrate and treatment system requirements needed for pump and treat based on existing site data.

Georgia Power will include future semiannual Remedy Selection Progress Reports in routine groundwater monitoring reports to document groundwater conditions, results associated with additional data gathering, and the progress in selecting and designing the remedy in accordance with 40 CFR § 257.97(a). Record keeping, notifications, and publicly accessible internet site requirements for the semiannual Remedy Selection Progress Reports will be provided in accordance with 40 CFR § 257.105(h)(12), 257.106(h)(9), and 257.107(h)(9), respectively.

4 REFERENCES

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TABLES



Table 1.
Appendix IV Statistically Significant Levels
First 2020 Semiannual Remedy Selection and Design Progress Report
Georgia Power Company
Plant Yates AP-3, A, B, B' and R6 CCR Landfill

Constituent	Well	Upper Confidence Limit (mg/L)	Lower Confidence Limit (mg/L)	GWPS
Beryllium	YGWC-33S	0.195	0.015	0.004
	YGWC-38	0.006	0.005	
Cobalt	YGWC-33S	0.026	0.015	0.013
Selenium	YGWC-38	0.251	0.155	0.05
	YGWC-41	0.068	0.053	

Notes:

GWPS- groundwater protection standard

Table 2.
Summary of Nature and Extent Delineation Analytical Results
First 2020 Semiannual Remedy Selection and Design Progress Report
Georgia Power Company
Plant Yates AP-3, A, B, B' and R6 CCR Landfill

Analyte	PZ-35	PZ-35	PZ-35	PZ-35	YAMW-1	YAMW-1	YAMW-1	YAMW-1	YAMW-2	YAMW-3	YAMW-3	YAMW-4	YAMW-5	YAMW-5	
	8/30/2018	10/16/2018	9/26/2019	3/25/2020	10/16/2018	9/26/2019	1/3/2020	3/25/2020	1/15/2020	1/16/2020	2/11/2020	1/16/2020	1/15/2020	2/11/2020	
Appendix III	Boron	0.04	0.031 J	< 0.04	0.071 J	0.2	0.092	NA	0.018 J	0.031 J	6.8	4.5	1.9	8.7	7.8
	Calcium	NA	6.5	4.7	7.9	14.5 J	9.3	NA	4.5	NA	NA	NA	NA	NA	NA
	Chloride	NA	8.5	7.5	6.8	12.1	6.4	NA	7.7	NA	NA	NA	NA	NA	NA
	Fluoride	NA	< 0.3	< 0.1	< 0.050	< 0.3	< 0.1	NA	< 0.050	NA	NA	NA	NA	NA	NA
	Sulfate	NA	34.2	14.3	36.1	83.7	46.6	NA	11.7	NA	NA	NA	NA	NA	NA
	pH	NA	NA	NA	5.65	NA	NA	5.78	6.13	6.25	6.67	6.62	6.47	5.64	5.37
	TDS	NA	123	NA	NA	209	NA	NA	139	NA	NA	NA	NA	NA	NA
Appendix IV	Antimony	NA	NA	< 0.005	< 0.00027	NA	< 0.005	NA	< 0.00027	NA	NA	NA	NA	NA	NA
	Arsenic	NA	0.00069 J	< 0.0025	NA	< 0.005	< 0.0025	NA	< 0.00035	NA	NA	NA	NA	NA	NA
	Barium	NA	0.063	0.039	0.039	0.048	0.047	NA	0.040	NA	NA	NA	NA	NA	NA
	Beryllium	0.00052 J	0.00036 J	< 0.001	< 0.000074	< 0.003	< 0.001	NA	0.00037 J	NA	NA	NA	NA	0.00017 J	NA
	Cadmium	NA	< 0.001	< 0.0005	0.00016 J	0.00014 J	< 0.0005	NA	< 0.00011	NA	NA	NA	NA	NA	NA
	Chromium	NA	NA	NA	0.0012 J	NA	NA	NA	0.00058 J	NA	NA	NA	NA	NA	NA
	Cobalt	NA	< 0.01	< 0.005	0.0059	0.032	0.015	< 0.00030	< 0.00030	NA	NA	NA	NA	NA	NA
	Lead	NA	NA	< 0.0015	< 0.000046	NA	< 0.0015	NA	< 0.000046	NA	NA	NA	NA	NA	NA
	Lithium	NA	0.0011 J	< 0.03	0.011 J	0.0052 J	< 0.03	NA	0.0011 J	NA	NA	NA	NA	NA	NA
	Molybdenum	NA	NA	NA	0.0019 J	NA	NA	NA	< 0.00095	NA	NA	NA	NA	NA	NA
	Combined Radium - 226/228	NA	0.363 U	NA	0.197 U	0.384 U	NA	NA	0.525 U	NA	NA	NA	NA	NA	NA
	Selenium	NA	< 0.01	< 0.0025	< 0.0013	0.0019 J	< 0.0025	NA	< 0.0013	< 0.0013	< 0.0013	NA	0.0018 J	0.045	NA
	Thallium	NA	NA	< 0.001	< 0.000052	NA	< 0.001	NA	< 0.000052	NA	NA	NA	NA	NA	NA

Notes:

- Analytical results are reported in milligrams per liter (mg/L). Combined radium results are reported in picocuries per liter (pCi/L).
 - < indicates the analyte was not detected above the laboratory method detection limit (MDL).
 - J values indicate 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.
 - Concentrations detected above the MDL are in **bold**.
 - U - 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.
- produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
- NA - Not Analyzed
- TDS - Total dissolved solids

Table 3.
Remedy Evaluation Summary
First Supplemental Semiannual Remedy Selection and Design Progress Report - 2020
Georgia Power Company
Plant Yates AP-3, A, B, B' and R6 CCR Landfill

Corrective Measure	Geochemical Manipulation (In Situ Injection)	Hydraulic Containment	In-Situ Stabilization/Solidification (ISS)	Monitored Natural Attenuation	Subsurface Vertical Barrier Walls	Permeable Reactive Barrier	Phytoremediation
Description	Injection of a chemical or organic substrate to alter geochemical conditions to those more favorable for stabilization of beryllium, cobalt, and/or selenium.	Combines a groundwater extraction system with a surface treatment system to remove target analytes from the subsurface and/or to control/prevent constituent migration.	In-situ solidification is the process by which constituent mobility in a solid matrix is decreased through physical and/or chemical means. Grout or other chemical additives are mixed with aquifer materials to reduce permeability. ISS could be applied to the aquifer matrix in groundwater flow zones but is less applicable than other technologies evaluated.	A remedial solution that takes advantage of natural attenuation processes to attenuate constituents in soil and groundwater. This option can meet the GWPS given sufficient time and favorable conditions.	Used to physically control the migration of impacted groundwater flow through isolation or redirection, typically around or upgradient of a source area.	A permeable reactive barrier is a zone of reactive material that extends below the water table to intercept and treat groundwater.	Phytoremediation is the direct use of various living plants as a means of hydraulic control or containment, immobilization of constituents, and/or uptake/degradation of constituents in shallow groundwater or, if engineered, using TreeWells® for intermediate depth groundwater. This technology can meet the GWPS for low level metal concentrations present in shallow groundwater.
40 CFR 257.96(c)(1)							
Ease of Implementation	This process is not substantially limited by implementation. The hydrogeology of the site is amenable to reagent injection and distribution. Bench testing and pilot testing can be used to optimize implementation.	Relative ease in implementation compared to other technologies.	ISS technology would be difficult to impractical to implement at the scale of the AMA and R6 landfill. The implementation would also be complicated on R6 landfill where the cap is in place.	This process is not limited by implementation.	-Installing into competent bedrock may be challenging due to depth, the presence of fractures, and the groundwater flow directions at the site.	Installing into competent bedrock may be challenging due to depth and the presence of fractures. Implementation is also challenging due to the groundwater flow directions at the site.	The depth of the treatment zone is limited to depth of root zone when relying on plants alone. When using TreeWell® system, deeper target depths, i.e. 30 feet or more, are achievable. Site ground water elevations are typically 10 feet to 30 feet below ground surface.
Performance	The geochemical manipulation processes identified have the potential to alter conditions and immobilize Be, Co and Se rapidly, but require ongoing monitoring to ensure conditions remain favorable.	Hydraulic containment is an effective corrective measure for dissolved constituents provided regular maintenance is performed throughout the operational life. Not typically immediately effective for trace level metals. Rebounding can occur as water levels return to normal once the pumping system is turned off post-remediation. Generally, requires disposal of treated water and sludges.	Performance would need to be assessed through bench or pilot testing. Likely need to be used in conjunction with an additional technology for groundwater. Technology anticipated to be less effective for groundwater than other options evaluated.	This process provides ongoing effectiveness and is well documented as an effective measure for remediating groundwater	Performance may be limited due to site geology.	The effectiveness of this technology may be limited by underflow and reactive lifespan and is only effective for specific constituents. Marginally effective over long periods of time without replacement of PRB material.	May be directly effective by accumulation or uptake of some metals or hydraulic control, however phytoaccumulation is directly related to the plant species. Constituents may need to be addressed by a method that does not involve direct uptake of impacted groundwater (i.e. traditional phytoremediation). An alternative method such as a TreeWell® system may need to be considered.
Potential Impacts	Low potential for impacts: health and safety concerns during injections associated with equipment, injection pressure management and reagent handling, minimal risk of cross media contamination, exposure potential limited to groundwater sampling	Low potential for impacts: health and safety concerns during construction and O&M, injection pressure management and reagent handling, minimal risk of cross media contamination, exposure potential limited to groundwater sampling	Low potential for impacts: No health and safety concerns during construction, minimal risk of cross media contamination, exposure potential limited to groundwater sampling	Low potential for impacts: No health and safety concerns during construction, minimal risk of cross media contamination, exposure potential limited to groundwater sampling	Low potential for impacts: health and safety during construction, minimal risk of cross media contamination, exposure post-construction limited to groundwater sampling	Low potential for impacts: health and safety during construction, minimal risk of cross media contamination, exposure post-construction limited to groundwater sampling	Low potential for impacts: health and safety during construction, minimal risk of cross media contamination, exposure post-construction limited to groundwater sampling

Table 3.
Remedy Evaluation Summary
First Supplemental Semiannual Remedy Selection and Design Progress Report - 2020
Georgia Power Company
Plant Yates AP-3, A, B, B' and R6 CCR Landfill

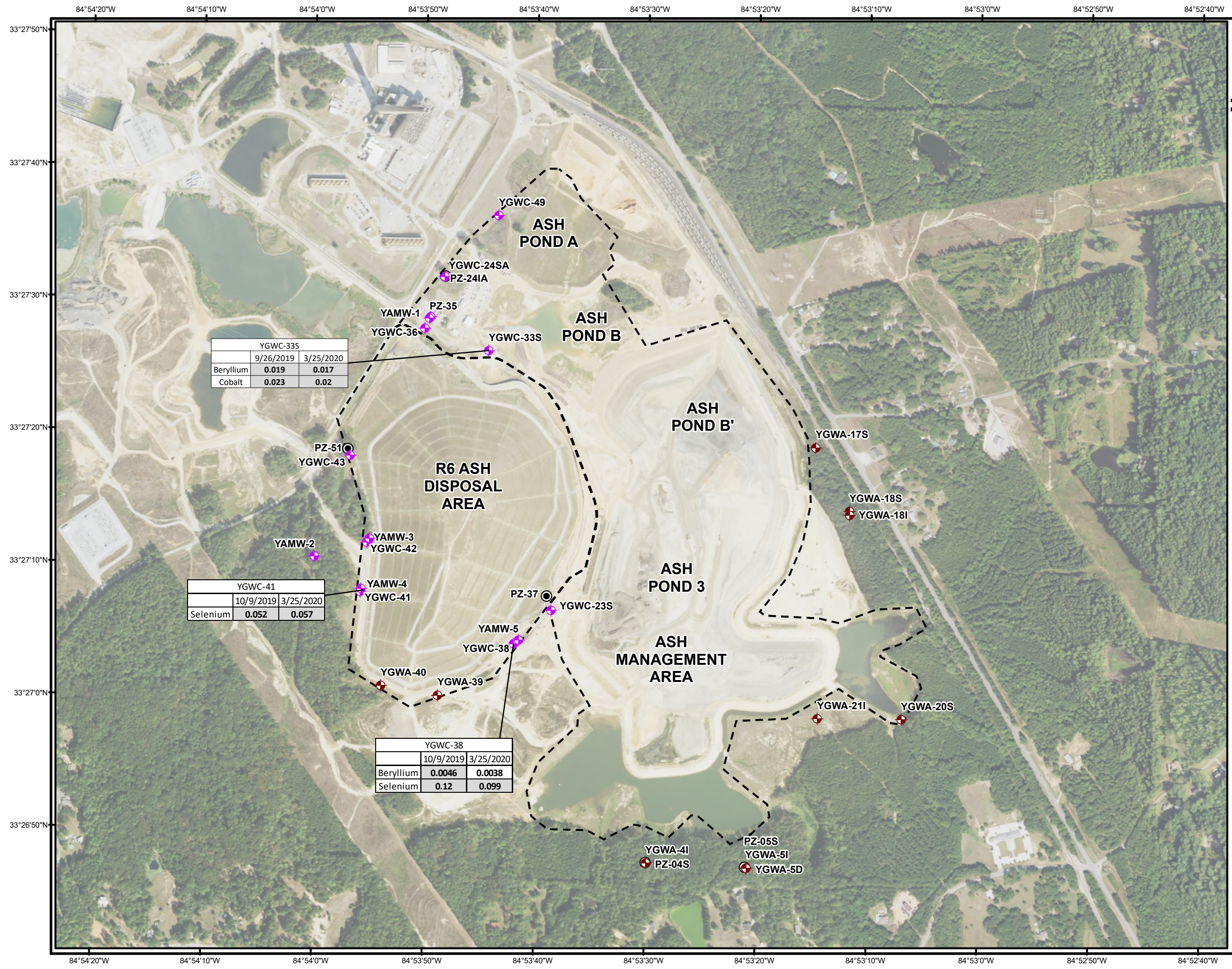
Corrective Measure	Geochemical Manipulation (In Situ Injection)	Hydraulic Containment	In-Situ Stabilization/Solidification (ISS)	Monitored Natural Attenuation	Subsurface Vertical Barrier Walls	Permeable Reactive Barrier	Phytoremediation
Reliability	This process will likely have overall reliability in achieving GWPS goals when adequate volume and subsurface distribution are achieved. Ongoing monitoring is necessary to ensure favorable conditions are maintained once achieved.	This technology provides moderate to high reliability based on extraction well up-time and maintenance for the treatment system.	Reliable immobilization over time with proper implementation.	This process will likely have overall reliability in achieving GWPS goals where impacted area remains internal to the site and is adequately monitored.	The reliability of this technology is limited at depth and by the ability to manage changes in the flow direction and hydraulic head of groundwater.	This technology may not provide reliability in the site-specific lithology due to difficulty in interception groundwater flow through fractured bedrock.	The presence of impacted groundwater below typical root zones would need to be addressed for phytoremediation to be a reliable technology for hydraulic control. Reliable plant species for selenium uptake are more established than for beryllium and cobalt.
40 CFR 257.96(c)(2)							
Begin/Complete	Can begin immediately upon completion of pilot testing and/or bench scale testing, which may take up to 24 months. Long-term monitoring and reporting likely required.	Time needed to model and design may take up to 24 months; variable time for construction depending on scale, generally can be accomplished in 6 months.	Time needed to model and design may take up to 24 months; variable time for construction depending on scale, generally can be accomplished relatively quickly between 6 and 12 months.	Can begin immediately. Long-term monitoring and reporting likely required.	Time needed to model and design may take up to 24 months. Variable time for construction depending on scale, generally can be accomplished relatively quickly between 6 and 12 months.	Time needed to model and design may take up to 24 months; variable time for construction depending on scale, generally can be accomplished in 6 to 12 months.	Time needed to model and design may take up to 6 months. Pilot testing may be required, which could take up to three years. Depending on the number of required units, the installation effort is expected to last several weeks. Full hydraulic capture/control is expected approximately three years after planting.
40 CFR 257.96(c)(3)							
Institutional Requirements	Deed restrictions may be necessary until in-situ treatment has achieved GWPS. A new UIC permit (for in-situ injections) would be required to implement this corrective measure. No other institutional requirements are expected at this time.	Depending on the effluent management strategy, modifications to the existing NPDES permit may be required, or obtaining a new underground injection control (UIC) permit may be needed if groundwater reinjection is chosen. In addition, deed restrictions may be required if groundwater conditions are above regulatory standards for unrestricted use.	Deed restrictions may be necessary for groundwater areas downgradient of the stabilized and/or solidified areas. No other institutional requirements are expected at this time.	MNA may require the implementation of institutional controls, such as deed restrictions, to preclude potential exposure to groundwater within the footprint of impacted groundwater until GWPS are achieved.	Deed restrictions may be necessary for groundwater areas downgradient of the barrier wall until remedial goals are met. No other institutional requirements are expected at this time.	Deed restrictions may be necessary for groundwater areas upgradient of the PRB (if not installed along the waste boundary). No other institutional requirements are expected at this time.	Deed restrictions may be necessary for groundwater areas upgradient of the phytoremediation area or TreeWell® system. No other institutional requirements are expected at this time.
Other Env or Public Health Requirements	None expected at this point. Based on downgradient sampling results near adjacent waterbodies, there currently appear to be no potential receptors downgradient of the units.	Based on downgradient sampling results near adjacent waterbodies, there currently are no complete receptor pathways downgradient of the units. Above-ground treatment components may need to be present for an extended period, and generating residuals requiring management and disposal.	None expected at this point. Based on downgradient sampling results near adjacent waterbodies, there currently appear to be no potential receptors downgradient of the unit. Following implementation of ISS, this source control remedy is passive, does not create carbon emissions, and preserves groundwater resources.	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding community. Based on downgradient sampling results near adjacent waterbodies, there currently are no complete receptor pathways downgradient of the units.	Based on downgradient sampling results near adjacent waterbodies, there currently appears to be no potential receptors downgradient of the unit. Due to the potential need for groundwater extraction associated with barrier walls, above-ground treatment components may need to be present for an extended period, creating carbon emissions and generating residuals requiring management and disposal	None expected at this point. Based on downgradient sampling results near adjacent waterbodies, there currently are no complete receptor pathways downgradient of the unit. Following installation, the remedy is passive.	None expected at this point. Based on downgradient sampling results near adjacent waterbodies, there currently are no complete receptor pathways downgradient of the units. Innovative and green technology may be positively received by various stakeholders. Following installation, the remedy is passive and does not require external energy.

Table 3.
Remedy Evaluation Summary
First Supplemental Semiannual Remedy Selection and Design Progress Report - 2020
Georgia Power Company
Plant Yates AP-3, A, B, B' and R6 CCR Landfill

Corrective Measure	Geochemical Manipulation (In Situ Injection)	Hydraulic Containment	In-Situ Stabilization/Solidification (ISS)	Monitored Natural Attenuation	Subsurface Vertical Barrier Walls	Permeable Reactive Barrier	Phytoremediation
Relative Costs and Screening							
Relative Costs	Moderate costs are associated with this technology.	High costs are associated with this technology (O&M and groundwater disposal).	High costs are associated with this technology.	Relatively lower capital costs are associated with this technology.	High capital costs are associated with this technology.	High capital costs are associated with this technology.	Relatively lower costs are associated with this technology. May require periodic harvesting and disposal of plant species.
Retaining Technology for Further Evaluation?	Yes	Yes	No. Not feasible or advantageous compared to other options for groundwater.	Yes	No. Site specific hydrogeology limits implementability, performance and effectiveness.	No. Site specific hydrogeology limits implementability, performance and effectiveness.	Yes

FIGURES





LEGEND

- DOWNGRADIENT MONITORING WELL
- UPGRADIENT MONITORING WELL
- PIEZOMETER
- PERMITTED UNIT BOUNDARY

Analyte	GWPS (Federal and State)	
Beryllium	0.004	
Cobalt	0.013	
Selenium	0.05	

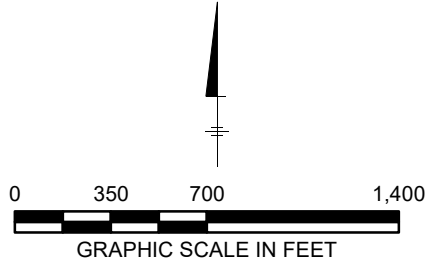
NOTE:

- ALL RESULTS PRESENTED IN MILLIGRAMS PER LITER (mg/L).
- SHADED VALUES INDICATE EXCEEDANCE OF GROUNDWATER PROTECTION STANDARD (GWPS).
- AERIAL IMAGE SOURCE: NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.

YGWC-33S		
	9/26/2019	3/25/2020
Beryllium	0.019	0.017
Cobalt	0.023	0.02

YGWC-41		
	10/9/2019	3/25/2020
Selenium	0.052	0.057

YGWC-38		
	10/9/2019	3/25/2020
Beryllium	0.0046	0.0038
Selenium	0.12	0.099



COORDINATE SYSTEM: NAD 1983 STATEPLANE
GEORGIA WEST FIPS 1002 FEET

Georgia Power
PLANT YATES
FIRST SEMI-ANNUAL REMEDY SELECTION
AND DESIGN PROGRESS REPORT - 2020

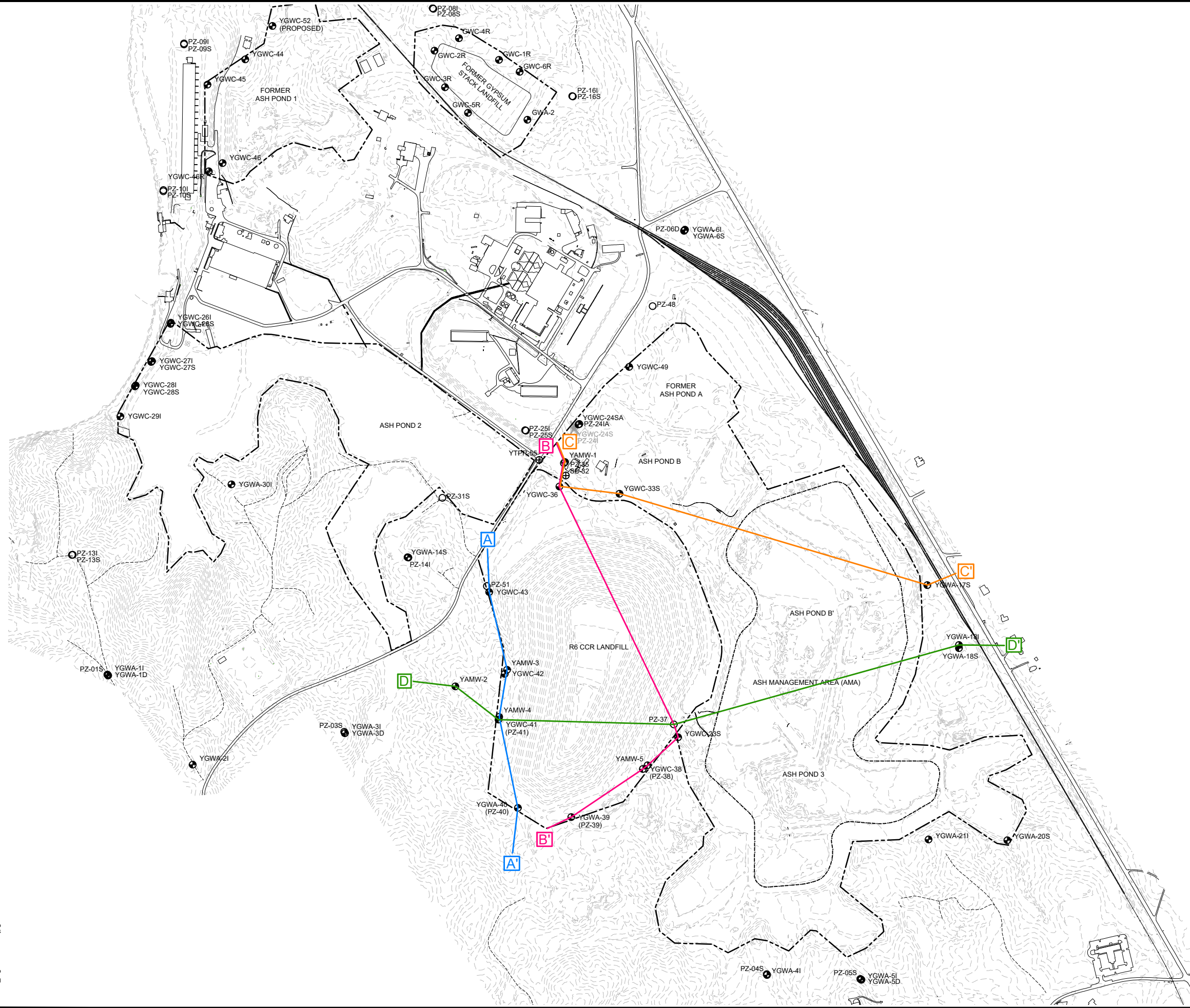
APPENDIX IV GWPS EXCEEDANCES

ARCADIS Design & Consultancy for natural and built assets

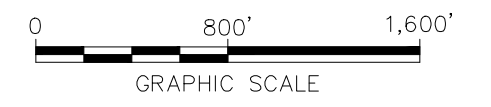
FIGURE **1**


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- LEGEND:**
- EXISTING GRADE
 - GROUNDWATER MONITORING WELL
 - PEIZOMETER
 - ⊕ TEST BORING
 - ⊗ ABANDONED WELL
 - A — CROSS-SECTION
 - BOUNDARY PER D&O PLAN
 - EXTENT OF AMA FINAL COVER





Georgia Power

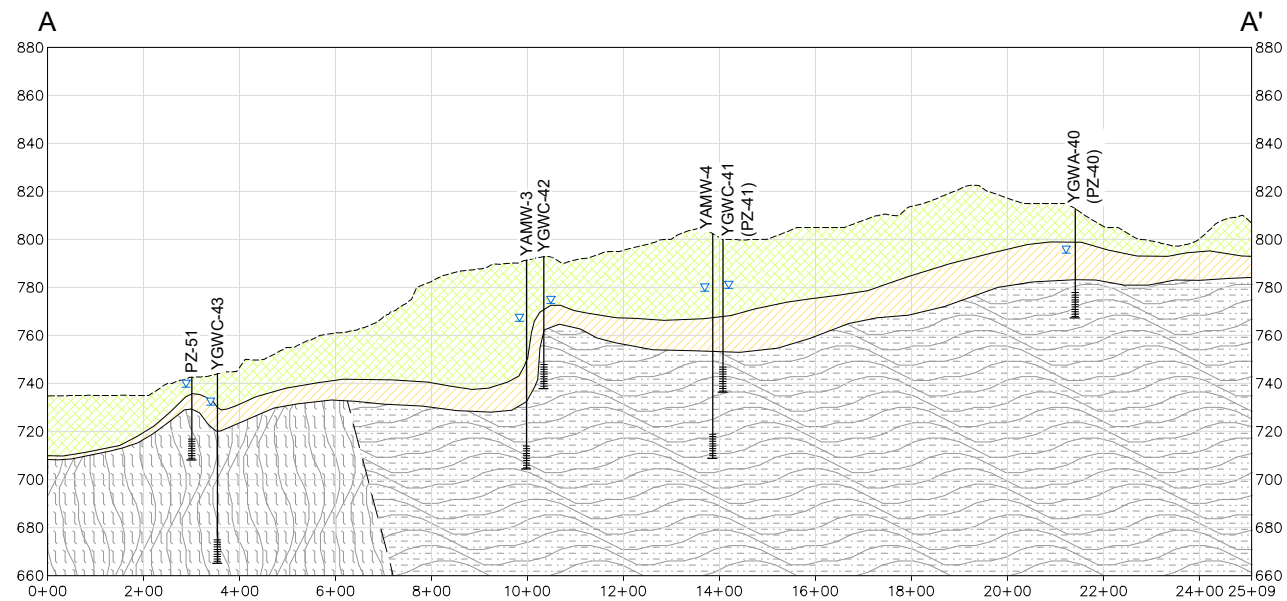
CROSS-SECTION LOCATION MAP



ARCADIS Design & Consultancy for natural and built assets

FIGURE A
2

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LEGEND:

- WATER ELEVATION (MARCH 2020)
- WELL SCREEN

SAPROLITE:

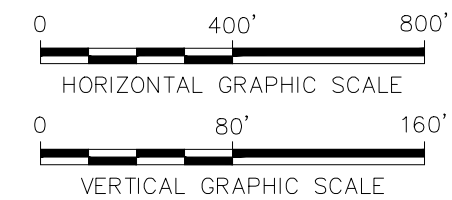
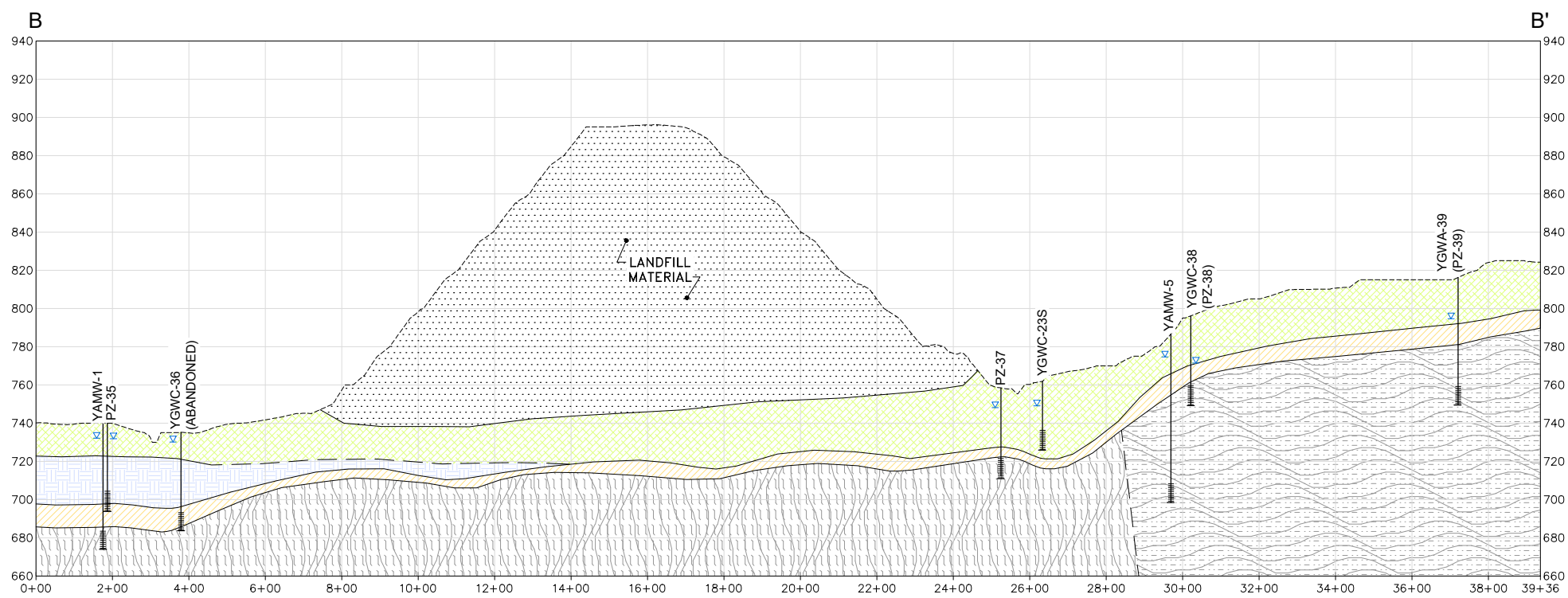
- SILTY SAND – LIGHT BROWN TO TAN FIRE-MEDIUM GRAINED SAND WITH SILT. LOOSE
- CLAYEY SAND – MOTTLED TO BROWN, FINE TO MEDIUM GRAINED SAND WITH CLAY. LOOSE.


TRANSITION ZONE:

- HIGHLY WEATHERED AND HIGHLY FRACTURED BIOTITE GNEISS, GRANITIC GNEISS, AND MICA SCHIST. FINE TO COARSE SAND AND GRAVEL PRESENT

BEDROCK:


- BEDROCK (UNDIFFERENTIATED) – UNDIFFERENTIATED BIOTITE GNEISS, GRANITIC GNEISS, AND MICA SCHIST. MODERATELY TO INTENSELY FOLIATED
- BIOTITE GNEISS – BIOTITE AND MUSCOVITE GNEISS. MODERATELY TO INTENSELY FOLIATED





Georgia Power

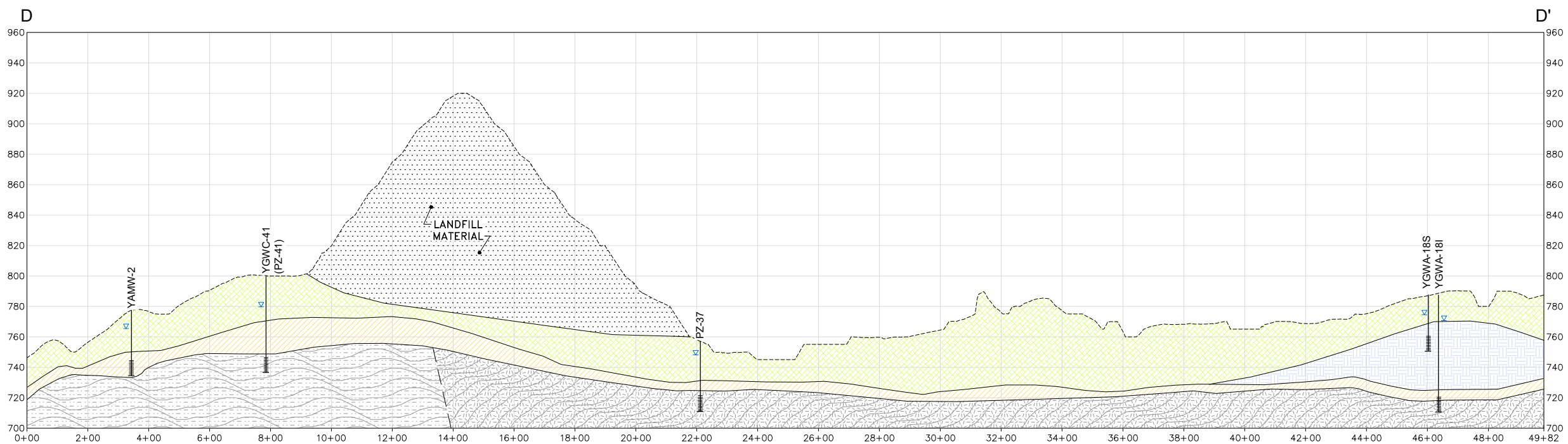
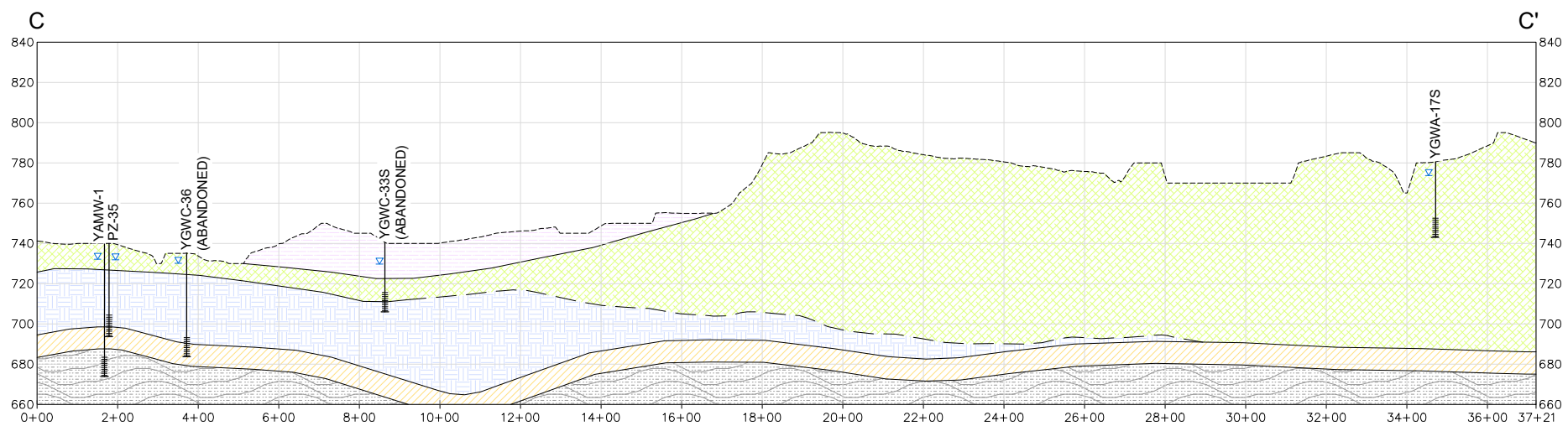
CROSS-SECTIONS



ARCADIS Design & Consultancy
for natural and built assets

FIGURE
3

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LEGEND:

- WATER ELEVATION (MARCH 2020)
- WELL SCREEN

SAPROLITE:

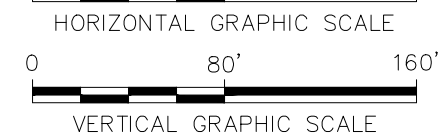
- SANDY SILT- LIGHT BROWN TO BROWN SANDY SILT. LOW PLASTICITY
- SILTY SAND - LIGHT BROWN TO TAN FINE-MEDIUM GRAINED SAND WITH SILT. LOOSE
- CLAYEY SAND - MOTTLED TO BROWN, FINE TO MEDIUM GRAINED SAND WITH CLAY. LOOSE.

TRANSITION_ZONE:

- HIGHLY WEATHERED AND HIGHLY FRACTURED BIOTITE GNEISS, GRANITIC GNEISS, AND MICA SCHIST. FINE TO COARSE SAND AND GRAVEL PRESENT

BEDROCK:

- GRANITIC GNEISS -GRAY TO WHITE, BIOTITE, MUSCOVITE, QUARTZ, PLAGIOCLASE GNEISS. MODERATELY TO INTENSELY FOLIATED
- BIOTITE GNEISS - BIOTITE AND MUSCOVITE GNEISS. MODERATELY TO INTENSELY FOLIATED



CROSS-SECTIONS

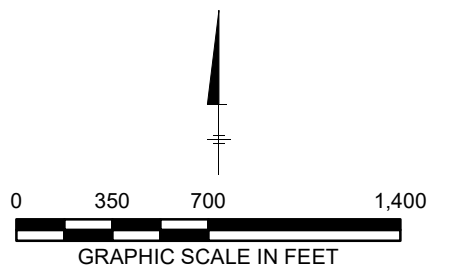


LEGEND

- ACTIVE MONITORING WELL LOCATION
- NON-NETWORK WELL/PIEZOMETER
- PERMITTED UNIT BOUNDARY
- SELENIUM ISOCONTOUR LINE (DASHED WHERE INFERRED)
- SELENIUM GWPS VALUE = 0.050 mg/L
- APPROXIMATE POTENTIOMETRIC CONTOUR (FEET)
- 0.019** SELENIUM CONCENTRATION VALUES (mg/L)

NOTES:

1. RESULTS ARE PROVIDED IN MILLIGRAMS PER LITER (mg/L)
2. J = ESTIMATED VALUE
3. * = WELL ABANDONED; A REPLACEMENT WELL FOR YGWC-36 WILL BE INSTALLED.
4. SAMPLES WERE COLLECTED ON MARCH 18-20 AND MARCH 24-26, 2020 EXCEPT WHERE NOTED.
5. A SURVEY OF POTENTIAL DRINKING WATER SUPPLY WELLS WAS PERFORMED WITHIN A 0.5 MILE RADIUS OF THE PLANT. ALL OF THE WELLS WERE LOCATED HYDRAULICALLY UPGRADIENT OF THE PLANT. SELENIUM IS DELINEATED TO BELOW THE GWPS ON THE PLANT PROPERTY.
6. AERIAL IMAGE SOURCE: NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.



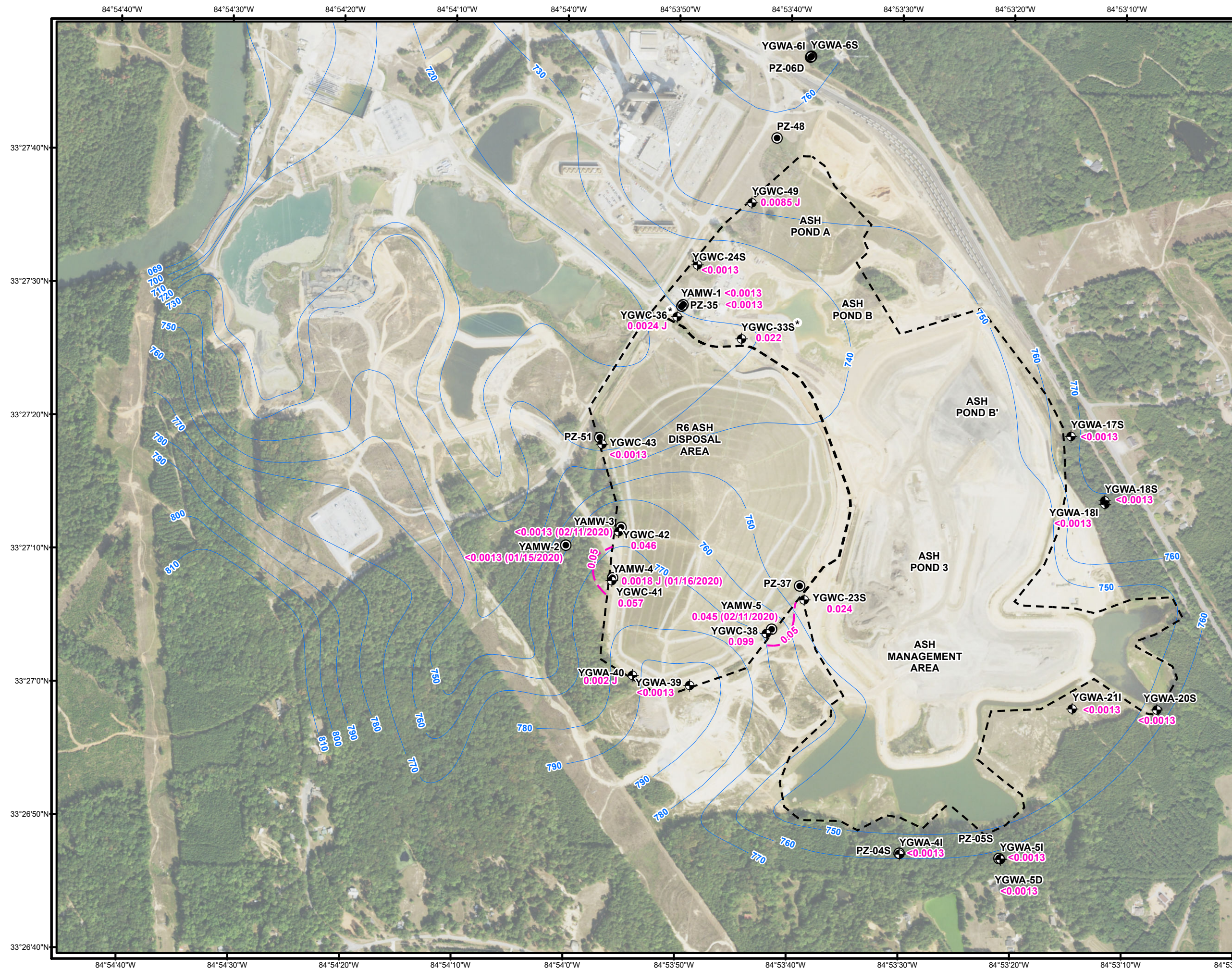
COORDINATE SYSTEM: NAD 1983 STATEPLANE
GEORGIA WEST FIPS 1002 FEET



**SELENIUM
ISO-CONCENTRATION MAP**

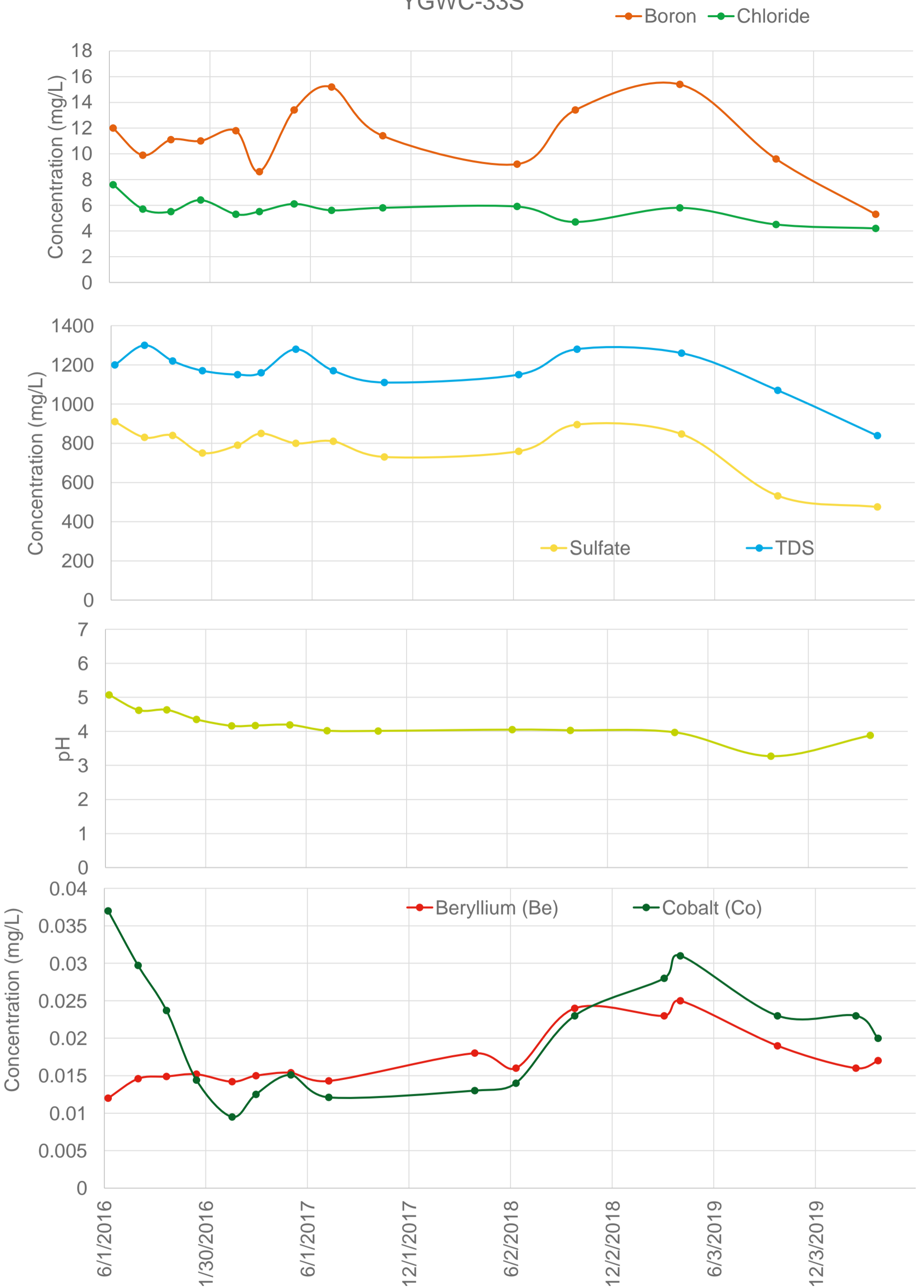


FIGURE
5



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YGWC-33S

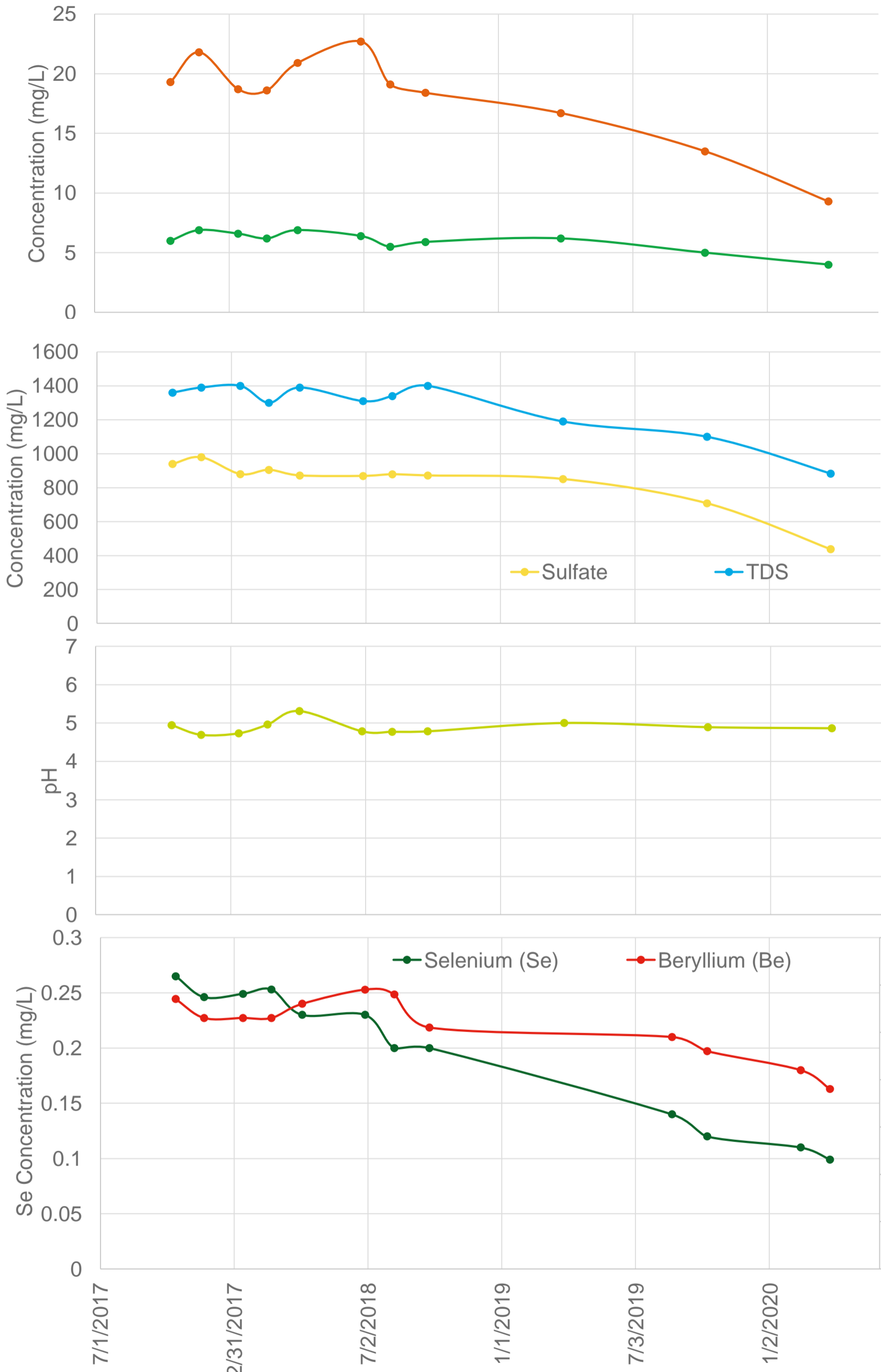


FIRST SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT - 2020

YGWC-33S CONCENTRATION TRENDS

YGWC-38

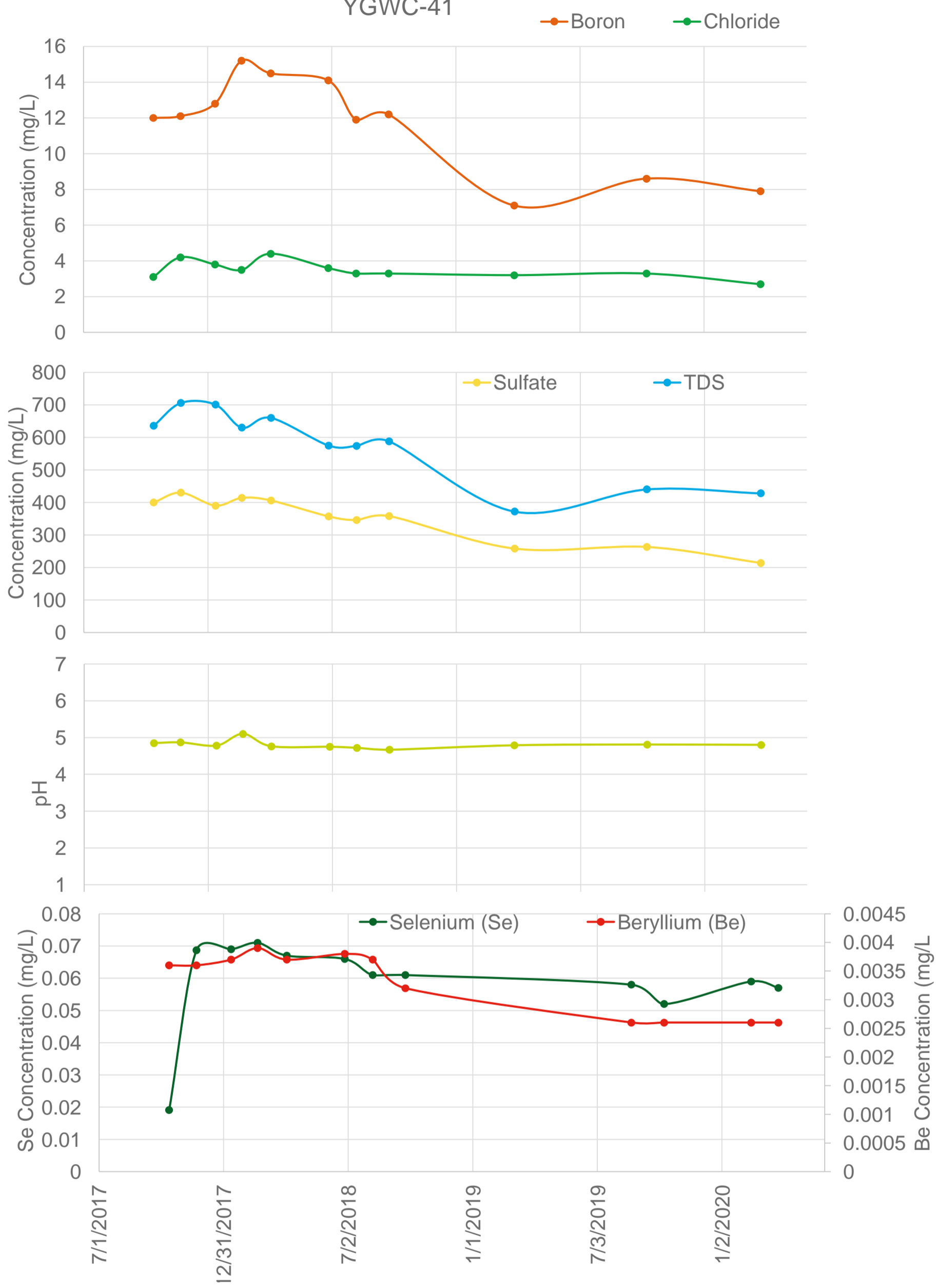
—●— Boron —●— Chloride



FIRST SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT - 2020

YGWC-38 CONCENTRATION TRENDS

YGWC-41



APPENDIX B

Field Sampling Forms (February and March 2020)



February 2020

Scan Event



Low-Flow Test Report:

Test Date / Time: 2/12/2020 1:02:54 PM

Project: Plant Yates - AP 3

Operator Name: O. Fuquea

Location Name: YGWA-4I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 39.7 ft Total Depth: 49.7 ft Initial Depth to Water: 22.56 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 45 ft Estimated Total Volume Pumped: 4.9 L Flow Cell Volume: 90 ml Final Flow Rate: 110 ml/min Final Draw Down: 41.3 in	Instrument Used: Aqua TROLL 400 Serial Number: 714344
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/12/2020 1:02 PM	00:00	6.33 pH	17.09 °C	134.46 µS/cm	4.18 mg/L		84.9 mV	22.56 ft	110.00 ml/min
2/12/2020 1:07 PM	05:00	6.30 pH	16.55 °C	139.74 µS/cm	1.76 mg/L	0.78 NTU	67.5 mV	23.60 ft	110.00 ml/min
2/12/2020 1:12 PM	10:00	6.28 pH	16.51 °C	138.19 µS/cm	1.22 mg/L	0.90 NTU	61.2 mV	24.60 ft	110.00 ml/min
2/12/2020 1:17 PM	15:00	6.28 pH	16.43 °C	137.60 µS/cm	1.13 mg/L	1.06 NTU	57.8 mV	25.20 ft	110.00 ml/min
2/12/2020 1:22 PM	20:00	6.28 pH	16.40 °C	137.71 µS/cm	1.15 mg/L	0.92 NTU	55.7 mV	25.40 ft	110.00 ml/min
2/12/2020 1:27 PM	25:00	6.25 pH	16.35 °C	134.30 µS/cm	1.33 mg/L	0.81 NTU	54.6 mV	25.70 ft	110.00 ml/min
2/12/2020 1:32 PM	30:00	6.21 pH	16.36 °C	129.99 µS/cm	1.59 mg/L	0.59 NTU	54.6 mV	25.80 ft	110.00 ml/min
2/12/2020 1:37 PM	35:00	6.17 pH	16.33 °C	126.51 µS/cm	1.84 mg/L	1.43 NTU	55.3 mV	25.90 ft	110.00 ml/min
2/12/2020 1:42 PM	40:00	6.16 pH	16.47 °C	124.91 µS/cm	1.96 mg/L	0.85 NTU	55.8 mV	26.00 ft	110.00 ml/min
2/12/2020 1:47 PM	45:00	6.15 pH	16.51 °C	124.23 µS/cm	2.01 mg/L	0.66 NTU	56.2 mV	26.00 ft	110.00 ml/min

Samples

Sample ID:	Description:
YGWA-4I	Collected at 1348. 67F overcast.

Low-Flow Test Report:

Test Date / Time: 2/12/2020 10:01:40 AM

Project: Plant Yates - AP 3

Operator Name: O. Fuquea

Location Name: YGWA-5D Well Diameter: 2 in Casing Type: PVC Screen Length: 50 ft Top of Screen: 81 ft Total Depth: 131.6 ft Initial Depth to Water: 22.13 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 116 ft Estimated Total Volume Pumped: 5.2 L Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.27 in	Instrument Used: Aqua TROLL 400 Serial Number: 714344
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/12/2020 10:01 AM	00:00	7.33 pH	13.86 °C	205.84 µS/cm	8.11 mg/L		92.0 mV	22.13 ft	150.00 ml/min
2/12/2020 10:06 AM	05:00	7.19 pH	15.22 °C	189.99 µS/cm	0.93 mg/L	1.16 NTU	-15.7 mV	22.20 ft	150.00 ml/min
2/12/2020 10:11 AM	10:00	7.42 pH	15.48 °C	189.90 µS/cm	0.29 mg/L	1.34 NTU	-72.0 mV	22.30 ft	150.00 ml/min
2/12/2020 10:16 AM	15:00	7.62 pH	15.66 °C	215.13 µS/cm	0.25 mg/L	1.40 NTU	-46.5 mV	22.40 ft	150.00 ml/min
2/12/2020 10:21 AM	20:00	7.63 pH	15.73 °C	211.53 µS/cm	0.21 mg/L	1.44 NTU	-48.1 mV	22.40 ft	150.00 ml/min
2/12/2020 10:26 AM	25:00	7.56 pH	15.79 °C	200.50 µS/cm	0.20 mg/L	0.99 NTU	-44.5 mV	22.40 ft	150.00 ml/min
2/12/2020 10:31 AM	30:00	7.53 pH	15.79 °C	195.78 µS/cm	0.20 mg/L	0.87 NTU	-42.0 mV	22.40 ft	150.00 ml/min
2/12/2020 10:36 AM	35:00	7.52 pH	15.78 °C	193.90 µS/cm	0.19 mg/L	0.69 NTU	-40.5 mV	22.40 ft	150.00 ml/min

Samples

Sample ID:	Description:
YGWA-5D	Collected at 1038. 55F overcast.

Low-Flow Test Report:

Test Date / Time: 2/12/2020 11:25:09 AM

Project: Plant Yates - AP 3

Operator Name: O. Fuquea

Location Name: YGWA-5I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 48.5 ft Total Depth: 58.5 ft Initial Depth to Water: 18.02 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 53.5 ft Estimated Total Volume Pumped: 6.0 L Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 4 in	Instrument Used: Aqua TROLL 400 Serial Number: 714344
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/12/2020 11:25 AM	00:00	5.90 pH	16.16 °C	79.27 µS/cm	4.98 mg/L		47.8 mV	18.02 ft	200.00 ml/min
2/12/2020 11:30 AM	05:00	5.87 pH	16.36 °C	78.18 µS/cm	5.14 mg/L	1.44 NTU	50.7 mV	18.30 ft	200.00 ml/min
2/12/2020 11:35 AM	10:00	5.85 pH	16.42 °C	78.47 µS/cm	5.24 mg/L	1.24 NTU	54.5 mV	18.40 ft	200.00 ml/min
2/12/2020 11:40 AM	15:00	5.84 pH	16.46 °C	79.59 µS/cm	5.45 mg/L	1.18 NTU	58.2 mV	18.40 ft	200.00 ml/min
2/12/2020 11:45 AM	20:00	5.84 pH	16.51 °C	80.61 µS/cm	5.66 mg/L	0.85 NTU	61.7 mV	18.40 ft	200.00 ml/min
2/12/2020 11:50 AM	25:00	5.83 pH	16.56 °C	81.01 µS/cm	5.77 mg/L	1.96 NTU	64.3 mV	18.40 ft	200.00 ml/min
2/12/2020 11:55 AM	30:00	5.83 pH	16.59 °C	81.04 µS/cm	5.83 mg/L	2.22 NTU	66.0 mV	18.40 ft	200.00 ml/min

Samples

Sample ID:	Description:
YGWA-5I	Collected at 1155. 62F overcast.

Low-Flow Test Report:

Test Date / Time: 2/11/2020 10:44:10 AM

Project: Plant Yates - AP 3

Operator Name: O. Fuquea

Location Name: YGWA-17S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 29.91 ft Total Depth: 39.91 ft Initial Depth to Water: 10.32 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 34.91 ft Estimated Total Volume Pumped: 7.1 L Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 2 in	Instrument Used: Aqua TROLL 400 Serial Number: 714344
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Test Notes:

Starting WL: 10.31

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/11/2020 10:44 AM	00:00	5.58 pH	17.94 °C	76.32 µS/cm	2.85 mg/L		133.1 mV	33.86 ft	200.00 ml/min
2/11/2020 10:49 AM	05:00	5.57 pH	17.89 °C	74.44 µS/cm	1.76 mg/L	4.74 NTU	111.1 mV	11.00 ft	200.00 ml/min
2/11/2020 10:54 AM	10:00	5.57 pH	18.16 °C	75.46 µS/cm	1.65 mg/L	6.56 NTU	103.4 mV	10.60 ft	200.00 ml/min
2/11/2020 10:54 AM	10:35	5.57 pH	18.16 °C	76.11 µS/cm	1.64 mg/L	8.06 NTU	132.7 mV	10.60 ft	200.00 ml/min
2/11/2020 10:59 AM	15:35	5.58 pH	18.08 °C	76.48 µS/cm	1.61 mg/L	6.51 NTU	98.0 mV	10.60 ft	200.00 ml/min
2/11/2020 11:04 AM	20:35	5.59 pH	18.09 °C	78.99 µS/cm	1.45 mg/L	7.94 NTU	94.6 mV	10.60 ft	200.00 ml/min
2/11/2020 11:09 AM	25:35	5.58 pH	18.16 °C	79.19 µS/cm	1.42 mg/L	8.12 NTU	93.1 mV	10.60 ft	200.00 ml/min
2/11/2020 11:14 AM	30:35	5.58 pH	18.19 °C	78.04 µS/cm	1.48 mg/L	5.25 NTU	92.0 mV	10.60 ft	200.00 ml/min
2/11/2020 11:19 AM	35:35	5.58 pH	18.21 °C	78.25 µS/cm	1.52 mg/L	4.76 NTU	133.5 mV	10.60 ft	200.00 ml/min

Samples

Sample ID:	Description:
YGWA-17S	Collected at 1121. 66F Rain.

Low-Flow Test Report:

Test Date / Time: 2/11/2020 1:21:12 PM

Project: Plant Yates - AP 3

Operator Name: O. Fuquea

Location Name: YGWA-18I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 69.76 ft Total Depth: 79.67 ft Initial Depth to Water: 22.41 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 74.67 ft Estimated Total Volume Pumped: 7.0 Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 2 in	Instrument Used: Aqua TROLL 400 Serial Number: 714344
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/11/2020 1:21 PM	00:00	6.37 pH	17.62 °C	96.74 µS/cm	4.13 mg/L		90.3 mV	22.41 ft	200.00 ml/min
2/11/2020 1:26 PM	05:00	6.06 pH	17.22 °C	104.82 µS/cm	2.75 mg/L	2.82 NTU	72.6 mV	22.60 ft	200.00 ml/min
2/11/2020 1:31 PM	10:00	6.07 pH	17.20 °C	106.37 µS/cm	3.08 mg/L	2.21 NTU	72.7 mV	22.60 ft	200.00 ml/min
2/11/2020 1:36 PM	15:00	6.07 pH	17.19 °C	107.06 µS/cm	3.13 mg/L	1.64 NTU	72.5 mV	22.60 ft	200.00 ml/min
2/11/2020 1:41 PM	20:00	6.07 pH	17.14 °C	107.55 µS/cm	3.15 mg/L	1.49 NTU	72.1 mV	22.60 ft	200.00 ml/min
2/11/2020 1:46 PM	25:00	6.07 pH	17.12 °C	108.03 µS/cm	3.20 mg/L	1.76 NTU	72.1 mV	22.60 ft	200.00 ml/min
2/11/2020 1:51 PM	30:00	6.07 pH	17.13 °C	108.22 µS/cm	3.27 mg/L	1.61 NTU	72.2 mV	22.60 ft	200.00 ml/min
2/11/2020 1:56 PM	35:00	6.07 pH	17.13 °C	107.81 µS/cm	3.36 mg/L	1.29 NTU	72.2 mV	22.60 ft	200.00 ml/min

Samples

Sample ID:	Description:
YGWA-18I	Collected at 1356, 71F cloudy.

Low-Flow Test Report:

Test Date / Time: 2/11/2020 12:09:04 PM

Project: Plant Yates - AP 3

Operator Name: O. Fuquea

Location Name: YGWA-18S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 29.86 ft Total Depth: 39.86 ft Initial Depth to Water: 19.36 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 34.86 ft Estimated Total Volume Pumped: 4.5 L Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 12 in	Instrument Used: Aqua TROLL 400 Serial Number: 714344
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Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/11/2020 12:09 PM	00:00	5.51 pH	17.98 °C	56.25 µS/cm	6.09 mg/L		131.3 mV	19.36 ft	150.00 ml/min
2/11/2020 12:14 PM	05:00	5.32 pH	17.88 °C	57.23 µS/cm	2.86 mg/L	1.88 NTU	107.1 mV	20.20 ft	150.00 ml/min
2/11/2020 12:19 PM	10:00	5.31 pH	17.85 °C	57.13 µS/cm	2.35 mg/L	2.39 NTU	100.0 mV	20.30 ft	150.00 ml/min
2/11/2020 12:24 PM	15:00	5.30 pH	17.80 °C	57.27 µS/cm	2.00 mg/L	2.11 NTU	96.1 mV	20.30 ft	150.00 ml/min
2/11/2020 12:29 PM	20:00	5.30 pH	17.71 °C	57.30 µS/cm	1.89 mg/L	2.63 NTU	94.3 mV	20.40 ft	150.00 ml/min
2/11/2020 12:34 PM	25:00	5.30 pH	17.68 °C	57.33 µS/cm	1.85 mg/L	3.16 NTU	91.9 mV	20.40 ft	150.00 ml/min
2/11/2020 12:39 PM	30:00	5.30 pH	17.72 °C	57.38 µS/cm	1.84 mg/L	2.57 NTU	90.4 mV	20.40 ft	150.00 ml/min

Samples

Sample ID:	Description:
YGWA-18S	Collected at 1239. 71F light rain.

Low-Flow Test Report:

Test Date / Time: 2/12/2020 1:16:33 PM

Project: Plant Yates - AP3

Operator Name: Hunter Auld

Location Name: YGWA-20S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 19 ft Total Depth: 29.71 ft Initial Depth to Water: 10.75 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 6.3 liter Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 11.4 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1345 on 2-12-20.

Weather Conditions:

Cloudy, 60s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/12/2020 1:16 PM	00:00	6.03 pH	17.63 °C	45.88 µS/cm	7.00 mg/L		74.6 mV	10.75 ft	180.00 ml/min
2/12/2020 1:21 PM	05:00	6.02 pH	17.28 °C	46.14 µS/cm	7.00 mg/L	3.90 NTU	82.6 mV	11.60 ft	180.00 ml/min
2/12/2020 1:26 PM	10:00	6.01 pH	17.18 °C	46.06 µS/cm	6.99 mg/L	3.80 NTU	87.9 mV	11.60 ft	180.00 ml/min
2/12/2020 1:31 PM	15:00	6.01 pH	17.11 °C	46.01 µS/cm	6.99 mg/L	3.10 NTU	92.5 mV	11.60 ft	180.00 ml/min
2/12/2020 1:36 PM	20:00	6.00 pH	17.15 °C	46.26 µS/cm	6.92 mg/L	3.20 NTU	96.3 mV	11.70 ft	180.00 ml/min
2/12/2020 1:41 PM	25:00	6.00 pH	17.16 °C	45.84 µS/cm	6.88 mg/L	2.80 NTU	99.2 mV	11.70 ft	180.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/12/2020 2:16:48 PM

Project: Plant Yates - AP3

Operator Name: Hunter Auld

Location Name: YGWA-211 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 70 ft Total Depth: 80.07 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 75 ft Estimated Total Volume Pumped: 4.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 140 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1445 on 2-12-20. Extra rad here. Transducer in well.

Weather Conditions:

Cloudy, 60s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/12/2020 2:16 PM	00:00	7.06 pH	18.70 °C	114.37 µS/cm	6.52 mg/L		96.6 mV		140.00 ml/min
2/12/2020 2:21 PM	05:00	6.59 pH	18.23 °C	162.96 µS/cm	0.80 mg/L	1.20 NTU	36.4 mV		140.00 ml/min
2/12/2020 2:26 PM	10:00	6.90 pH	18.20 °C	180.84 µS/cm	0.37 mg/L	0.70 NTU	-33.4 mV		140.00 ml/min
2/12/2020 2:31 PM	15:00	7.04 pH	18.13 °C	184.48 µS/cm	0.28 mg/L	0.75 NTU	-71.2 mV		140.00 ml/min
2/12/2020 2:36 PM	20:00	7.11 pH	18.12 °C	186.93 µS/cm	0.21 mg/L	0.80 NTU	-96.5 mV		140.00 ml/min
2/12/2020 2:41 PM	25:00	7.13 pH	18.29 °C	181.90 µS/cm	0.18 mg/L	0.75 NTU	-109.0 mV		140.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/12/2020 11:44:45 AM

Project: Plant Yates - R6

Operator Name: Hunter Auld

Location Name: YGWA-39 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 58 ft Total Depth: 68.5 ft Initial Depth to Water: 23.45 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 63 ft Estimated Total Volume Pumped: 10 liter Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 4.2 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1220 on 2-12-20.

Weather Conditions:

Cloudy, 60s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/12/2020 11:44 AM	00:00	6.34 pH	17.19 °C	83.38 µS/cm	3.55 mg/L		117.6 mV	23.45 ft	250.00 ml/min
2/12/2020 11:49 AM	05:00	5.98 pH	17.86 °C	108.50 µS/cm	0.78 mg/L	0.80 NTU	91.2 mV	23.70 ft	250.00 ml/min
2/12/2020 11:53 AM	08:52	5.99 pH	17.95 °C	109.63 µS/cm	0.42 mg/L	0.80 NTU	84.0 mV	23.70 ft	250.00 ml/min
2/12/2020 11:58 AM	13:52	5.99 pH	17.99 °C	106.41 µS/cm	0.32 mg/L	0.70 NTU	79.4 mV	23.70 ft	250.00 ml/min
2/12/2020 12:03 PM	18:52	5.99 pH	17.98 °C	101.61 µS/cm	0.19 mg/L	0.60 NTU	76.8 mV	23.80 ft	250.00 ml/min
2/12/2020 12:08 PM	23:52	5.98 pH	18.00 °C	98.86 µS/cm	0.15 mg/L	0.60 NTU	75.5 mV	23.80 ft	250.00 ml/min
2/12/2020 12:13 PM	28:52	5.97 pH	17.98 °C	96.22 µS/cm	0.14 mg/L	0.60 NTU	75.0 mV	23.80 ft	250.00 ml/min
2/12/2020 12:18 PM	33:52	5.97 pH	17.99 °C	94.54 µS/cm	0.14 mg/L	0.70 NTU	74.8 mV	23.80 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/12/2020 10:14:58 AM

Project: Plant Yates - R6

Operator Name: Hunter Auld

Location Name: YGWA-40 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 38 ft Total Depth: 48.35 ft Initial Depth to Water: 24.1 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 43 ft Estimated Total Volume Pumped: 4.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 4.8 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1042 on 2-12-20.

Weather Conditions:

Cloudy, 60s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/12/2020 10:14 AM	00:00	5.31 pH	16.70 °C	89.99 µS/cm	5.99 mg/L		156.2 mV	24.10 ft	100.00 ml/min
2/12/2020 10:19 AM	05:00	5.30 pH	17.12 °C	82.47 µS/cm	5.56 mg/L	0.90 NTU	171.3 mV	24.40 ft	100.00 ml/min
2/12/2020 10:24 AM	10:00	5.30 pH	17.15 °C	82.36 µS/cm	5.54 mg/L	0.70 NTU	133.4 mV	24.40 ft	100.00 ml/min
2/12/2020 10:29 AM	15:00	5.30 pH	17.19 °C	82.92 µS/cm	5.52 mg/L	0.70 NTU	132.5 mV	24.40 ft	100.00 ml/min
2/12/2020 10:34 AM	20:00	5.30 pH	17.19 °C	83.42 µS/cm	5.53 mg/L	0.65 NTU	132.1 mV	24.50 ft	100.00 ml/min
2/12/2020 10:39 AM	25:00	5.30 pH	17.20 °C	83.28 µS/cm	5.53 mg/L	0.50 NTU	131.2 mV	24.50 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/17/2020 12:51:11 PM

Project: Plant Yates

Operator Name: C Parker

Location Name: YGWC-23S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 29.2 ft Total Depth: 39.18 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 34.2 ft Estimated Total Volume Pumped: 5.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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Test Notes:

Sampled at 13:20. Cloudy 50s. Transducer in well - can not get DTW.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 0.5	+/- 100	
2/17/2020 12:51 PM	00:00	5.87 pH	16.97 °C	118.61 µS/cm	8.35 mg/L	3.60 NTU	100.6 mV	150.00 ml/min
2/17/2020 12:56 PM	05:00	5.85 pH	17.00 °C	120.55 µS/cm	8.24 mg/L	4.13 NTU	89.3 mV	200.00 ml/min
2/17/2020 1:01 PM	10:00	5.85 pH	17.04 °C	119.34 µS/cm	8.19 mg/L	3.98 NTU	84.8 mV	200.00 ml/min
2/17/2020 1:06 PM	15:00	5.84 pH	17.01 °C	119.14 µS/cm	8.25 mg/L	4.17 NTU	83.6 mV	200.00 ml/min
2/17/2020 1:11 PM	20:00	5.84 pH	17.09 °C	118.31 µS/cm	8.23 mg/L	2.97 NTU	82.3 mV	200.00 ml/min
2/17/2020 1:16 PM	25:00	5.84 pH	17.09 °C	117.78 µS/cm	8.23 mg/L	2.07 NTU	81.2 mV	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/13/2020 2:26:04 PM

Project: Plant Yates - AP 3

Operator Name: Hunter Auld

Location Name: YGWC-24S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 47 ft Total Depth: 57.01 ft Initial Depth to Water: 27.53 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 52 ft Estimated Total Volume Pumped: 6 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 8.04 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1453 on 2-13-20. Dup-2 here.

Weather Conditions:

Cloudy, 50s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/13/2020 2:26 PM	00:00	5.86 pH	17.46 °C	48.20 µS/cm	6.36 mg/L		87.3 mV	27.53 ft	200.00 ml/min
2/13/2020 2:31 PM	05:00	5.70 pH	17.50 °C	46.89 µS/cm	6.20 mg/L	0.60 NTU	90.4 mV	28.20 ft	200.00 ml/min
2/13/2020 2:36 PM	10:00	5.67 pH	17.37 °C	47.18 µS/cm	6.18 mg/L	0.50 NTU	136.4 mV	28.20 ft	200.00 ml/min
2/13/2020 2:41 PM	15:00	5.67 pH	17.28 °C	46.96 µS/cm	6.25 mg/L	0.50 NTU	95.0 mV	28.20 ft	200.00 ml/min
2/13/2020 2:46 PM	20:00	5.69 pH	17.21 °C	46.82 µS/cm	6.28 mg/L	0.50 NTU	96.0 mV	28.20 ft	200.00 ml/min
2/13/2020 2:51 PM	25:00	5.69 pH	17.15 °C	47.49 µS/cm	6.40 mg/L	0.50 NTU	96.8 mV	28.20 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/14/2020 11:12:56 AM

Project: Plant Yates - AP 3

Operator Name: Hunter Auld

Location Name: YGWC-33S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 28.7 ft Total Depth: 38.73 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 33 ft Estimated Total Volume Pumped: 6 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1140 on 2-14-20. Transducer in well.

Weather Conditions:

Sunny, 40s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/14/2020 11:12 AM	00:00	3.82 pH	14.45 °C	964.03 µS/cm	7.20 mg/L		159.3 mV		200.00 ml/min
2/14/2020 11:17 AM	05:00	3.75 pH	17.28 °C	889.94 µS/cm	1.41 mg/L	1.80 NTU	169.4 mV		200.00 ml/min
2/14/2020 11:22 AM	10:00	3.76 pH	18.02 °C	879.22 µS/cm	0.89 mg/L	2.50 NTU	286.3 mV		200.00 ml/min
2/14/2020 11:27 AM	15:00	3.76 pH	17.99 °C	871.15 µS/cm	0.41 mg/L	2.70 NTU	295.0 mV		200.00 ml/min
2/14/2020 11:32 AM	20:00	3.76 pH	18.08 °C	867.23 µS/cm	0.25 mg/L	2.20 NTU	175.6 mV		200.00 ml/min
2/14/2020 11:37 AM	25:00	3.76 pH	18.19 °C	867.95 µS/cm	0.21 mg/L	1.80 NTU	174.5 mV		200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/14/2020 11:19:57 AM

Project: Plant Yates - AMA / R6

Operator Name: Anna Schnittker

Location Name: YGWC-36 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 50 ft Total Depth: 60 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 55 ft Estimated Total Volume Pumped: 5.4 L Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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Test Notes:

Sample time: 1155

Weather Conditions:

Sunny 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/14/2020 11:19 AM	00:00	5.88 pH	17.76 °C	207.70 µS/cm	4.73 mg/L	2.10 NTU	53.4 mV		180.00 ml/min
2/14/2020 11:24 AM	05:00	5.79 pH	16.83 °C	192.30 µS/cm	4.30 mg/L	1.70 NTU	28.1 mV		180.00 ml/min
2/14/2020 11:29 AM	10:00	5.72 pH	16.65 °C	170.57 µS/cm	4.32 mg/L	1.40 NTU	27.0 mV		180.00 ml/min
2/14/2020 11:34 AM	15:00	5.71 pH	16.75 °C	167.92 µS/cm	4.18 mg/L	1.30 NTU	12.5 mV		180.00 ml/min
2/14/2020 11:39 AM	19:12	5.71 pH	16.76 °C	167.67 µS/cm	4.02 mg/L	1.30 NTU	49.0 mV		180.00 ml/min
2/14/2020 11:40 AM	20:03	5.71 pH	16.78 °C	167.65 µS/cm	4.00 mg/L	1.40 NTU	29.9 mV		180.00 ml/min
2/14/2020 11:45 AM	25:03	5.71 pH	16.83 °C	166.48 µS/cm	3.82 mg/L	1.50 NTU	79.7 mV		180.00 ml/min
2/14/2020 11:50 AM	30:03	5.71 pH	17.07 °C	166.66 µS/cm	3.71 mg/L	1.40 NTU	80.5 mV		180.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/14/2020 12:57:02 PM

Project: Plant Yates - AP 3

Operator Name: Hunter Auld

Location Name: YGWC-38 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 40 ft Total Depth: 50.12 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 45 ft Estimated Total Volume Pumped: 3.9 liter Flow Cell Volume: 90 ml Final Flow Rate: 130 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1325 on 2-14-20. Transducer in well.

Weather Conditions:

Sunny, 40s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/14/2020 12:57 PM	00:00	5.10 pH	15.85 °C	1,000.6 µS/cm	5.21 mg/L		158.0 mV		130.00 ml/min
2/14/2020 1:02 PM	05:00	4.86 pH	16.02 °C	926.33 µS/cm	2.94 mg/L	1.20 NTU	136.1 mV		130.00 ml/min
2/14/2020 1:07 PM	10:00	4.84 pH	16.05 °C	919.72 µS/cm	2.74 mg/L	1.80 NTU	207.6 mV		130.00 ml/min
2/14/2020 1:12 PM	15:00	4.83 pH	15.98 °C	916.75 µS/cm	2.63 mg/L	1.00 NTU	123.8 mV		130.00 ml/min
2/14/2020 1:17 PM	20:00	4.84 pH	15.98 °C	921.39 µS/cm	2.66 mg/L	0.80 NTU	190.5 mV		130.00 ml/min
2/14/2020 1:22 PM	25:00	4.84 pH	16.35 °C	919.89 µS/cm	2.66 mg/L	0.90 NTU	186.6 mV		130.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/14/2020 9:33:36 AM

Project: Plant Yates - R6

Operator Name: Hunter Auld

Location Name: YGWC-41 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 57 ft Total Depth: 67.7 ft Initial Depth to Water: 27.73 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 62 ft Estimated Total Volume Pumped: 7 liter Flow Cell Volume: 90 ml Final Flow Rate: 140 ml/min Final Draw Down: 9.2 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sampled at 1000 on 2-14-20.

Weather Conditions:

Sunny, 40s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/14/2020 9:33 AM	00:00	4.87 pH	13.82 °C	490.48 µS/cm	3.64 mg/L		167.2 mV	27.73 ft	140.00 ml/min
2/14/2020 9:38 AM	05:00	4.84 pH	15.31 °C	467.10 µS/cm	2.99 mg/L	0.80 NTU	195.6 mV	28.50 ft	140.00 ml/min
2/14/2020 9:43 AM	10:00	4.83 pH	15.29 °C	476.67 µS/cm	2.70 mg/L	0.40 NTU	117.4 mV	28.50 ft	140.00 ml/min
2/14/2020 9:48 AM	15:00	4.83 pH	15.46 °C	476.58 µS/cm	2.75 mg/L	0.50 NTU	114.7 mV	28.50 ft	140.00 ml/min
2/14/2020 9:53 AM	20:00	4.83 pH	16.33 °C	475.00 µS/cm	2.67 mg/L	0.50 NTU	112.9 mV	28.50 ft	140.00 ml/min
2/14/2020 9:58 AM	25:00	4.84 pH	16.16 °C	474.79 µS/cm	2.67 mg/L	0.50 NTU	110.4 mV	28.50 ft	140.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/14/2020 9:49:40 AM

Project: Plant Yates - AMA / R6

Operator Name: Anna Schnittker

Location Name: YGWC-42 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 50 ft Total Depth: 60 ft Initial Depth to Water: 27.35 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 55 ft Estimated Total Volume Pumped: 5.3 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 35 in	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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Test Notes:

Sample time: 1030

Weather Conditions:

Sunny 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/14/2020 9:49 AM	00:00	5.85 pH	16.31 °C	1,182.3 µS/cm	0.83 mg/L	1.80 NTU	77.7 mV	28.0 ft	150.00 ml/min
2/14/2020 9:54 AM	05:00	5.85 pH	15.55 °C	1,190.2 µS/cm	0.75 mg/L	1.70 NTU	101.8 mV	29.0 ft	150.00 ml/min
2/14/2020 9:59 AM	10:00	5.83 pH	15.34 °C	1,218.6 µS/cm	0.80 mg/L	1.30 NTU	98.0 mV	30.30 ft	150.00 ml/min
2/14/2020 10:04 AM	15:00	5.84 pH	15.21 °C	1,215.4 µS/cm	0.76 mg/L	0.70 NTU	38.0 mV	30.30 ft	150.00 ml/min
2/14/2020 10:05 AM	15:24	5.84 pH	15.20 °C	1,213.9 µS/cm	0.75 mg/L	0.60 NTU	67.1 mV	30.30 ft	150.00 ml/min
2/14/2020 10:10 AM	20:24	5.83 pH	15.02 °C	1,229.8 µS/cm	0.77 mg/L	0.70 NTU	27.5 mV	30.30 ft	150.00 ml/min
2/14/2020 10:15 AM	25:24	5.82 pH	14.94 °C	1,239.1 µS/cm	0.82 mg/L	0.70 NTU	74.6 mV	30.30 ft	150.00 ml/min
2/14/2020 10:20 AM	30:24	5.80 pH	14.76 °C	1,253.9 µS/cm	0.88 mg/L	0.80 NTU	73.2 mV	30.30 ft	150.00 ml/min
2/14/2020 10:25 AM	35:24	5.80 pH	14.80 °C	1,261.2 µS/cm	0.90 mg/L	0.70 NTU	16.7 mV	30.30 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/17/2020 11:30:52 AM

Project: Plant Yates

Operator Name: C Parker

Location Name: YGWC-43 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 70 ft Total Depth: 80 ft Initial Depth to Water: 14.45 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 75 ft Estimated Total Volume Pumped: 7 liter Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 2 in	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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Test Notes:

Sampled at 12:00. Cloudy 50s. EB-2 here at 11:50- tubing.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 0.5	+/- 100	+/- 10	
2/17/2020 11:30 AM	00:00	5.82 pH	16.26 °C	518.37 µS/cm	0.26 mg/L	3.49 NTU	-0.8 mV	14.45 ft	150.00 ml/min
2/17/2020 11:35 AM	05:00	5.87 pH	16.51 °C	505.49 µS/cm	0.19 mg/L	2.91 NTU	-4.0 mV	14.60 ft	220.00 ml/min
2/17/2020 11:40 AM	10:00	5.90 pH	16.58 °C	497.16 µS/cm	0.15 mg/L	3.06 NTU	-11.2 mV	14.60 ft	220.00 ml/min
2/17/2020 11:45 AM	15:00	5.92 pH	16.63 °C	495.52 µS/cm	0.14 mg/L	2.36 NTU	-13.8 mV	14.60 ft	220.00 ml/min
2/17/2020 11:50 AM	20:00	5.92 pH	16.64 °C	497.98 µS/cm	0.14 mg/L	2.11 NTU	-13.0 mV	14.70 ft	220.00 ml/min
2/17/2020 11:55 AM	25:00	5.93 pH	16.69 °C	497.98 µS/cm	0.15 mg/L	1.35 NTU	-11.3 mV	14.70 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 2/17/2020 1:55:26 PM

Project: Plant Yates

Operator Name: C Parker

Location Name: YGWC-49 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 69 ft Total Depth: 79 ft Initial Depth to Water: 31.42 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 74 m Estimated Total Volume Pumped: 5.1 liter Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 6 in	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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Test Notes:

Sampled at 14:30. Cloudy 50s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 0.5	+/- 100	+/- 5	
2/17/2020 1:55 PM	00:00	6.19 pH	16.06 °C	238.75 µS/cm	3.05 mg/L	8.09 NTU	29.9 mV	31.42 ft	150.00 ml/min
2/17/2020 1:59 PM	04:32	5.90 pH	16.73 °C	239.46 µS/cm	4.03 mg/L	7.45 NTU	82.2 mV	31.70 ft	160.00 ml/min
2/17/2020 2:04 PM	09:32	5.85 pH	16.91 °C	238.89 µS/cm	3.26 mg/L	4.59 NTU	61.3 mV	31.70 ft	160.00 ml/min
2/17/2020 2:09 PM	14:32	5.83 pH	16.99 °C	237.16 µS/cm	2.82 mg/L	4.40 NTU	95.7 mV	31.80 ft	160.00 ml/min
2/17/2020 2:14 PM	19:32	5.83 pH	17.00 °C	237.23 µS/cm	2.62 mg/L	4.16 NTU	61.1 mV	31.80 ft	160.00 ml/min
2/17/2020 2:19 PM	24:32	5.82 pH	17.00 °C	237.04 µS/cm	2.52 mg/L	4.04 NTU	94.1 mV	31.90 ft	160.00 ml/min
2/17/2020 2:24 PM	29:32	5.82 pH	16.95 °C	237.52 µS/cm	2.47 mg/L	3.76 NTU	60.1 mV	31.90 ft	160.00 ml/min

Samples

Sample ID:	Description:
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March 2020



Product Name: Low-Flow System

Date: 2020-03-25 10:27:25

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
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 18.66 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.8629838 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 4.75 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		+/- 0.3	+/- 25
Last 5	10:06:45	1500.04	15.97	6.36	166.78	3.34	19.70	1.67	89.93
Last 5	10:11:45	1800.04	16.02	6.30	167.04	3.23	19.70	1.52	86.45
Last 5	10:16:45	2100.04	15.97	6.30	166.19	3.19	19.70	1.42	84.18
Last 5	10:21:45	2400.04	15.97	6.28	166.33	2.02	19.70	1.35	82.38
Last 5	10:26:45	2700.04	16.07	6.26	166.16	1.98	19.70	1.31	80.86
Variance 0			-0.05	-0.01	-0.85			-0.10	-2.28
Variance 1			-0.00	-0.02	0.15			-0.07	-1.80
Variance 2			0.10	-0.02	-0.18			-0.05	-1.51

Notes

Sampled at 10:26. Sunny, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-24 12:05:34

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 111 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 21.95 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.461453 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 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	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	11:44:42	1500.04	17.35	7.38	214.95	5.18	22.30	0.53	-29.56
Last 5	11:49:42	1800.04	17.31	7.37	212.14	3.55	22.30	0.42	-23.83
Last 5	11:54:42	2100.04	17.31	7.36	210.51	3.13	22.30	0.33	-20.77
Last 5	11:59:42	2400.04	17.27	7.35	209.51	2.74	22.30	0.29	-18.22
Last 5	12:04:42	2700.04	17.18	7.34	209.01	2.83	22.30	0.28	-16.14
Variance 0			0.00	-0.01	-1.64			-0.09	3.05
Variance 1			-0.05	-0.01	-0.99			-0.04	2.55
Variance 2			-0.09	-0.01	-0.51			-0.01	2.08

Notes

Sampled at 12:04. Cloudy, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-24 14:15:48

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 58.50 ft

Pump placement from TOC 53.50 ft

Well Information:

Well ID YGWA-5I
Well diameter 2 in
Well Total Depth 58.50 ft
Screen Length 10 ft
Depth to Water 14.95 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9546848 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 14.25 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			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	13:54:45	3612.04	17.04	5.82	86.95	8.47	15.00	5.89	86.74
Last 5	13:59:45	3912.05	17.05	5.82	86.83	6.35	15.00	5.91	86.55
Last 5	14:04:45	4212.05	17.05	5.82	87.34	6.67	15.00	5.91	87.55
Last 5	14:09:45	4512.05	17.11	5.82	86.73	6.13	15.00	5.89	87.62
Last 5	14:14:45	4812.05	17.22	5.81	86.86	4.90	15.00	5.90	88.48
Variance 0			-0.00	-0.01	0.51			0.00	0.99
Variance 1			0.06	0.01	-0.61			-0.02	0.08
Variance 2			0.11	-0.01	0.13			0.01	0.86

Notes

Sampled at 14:14. Sunny. 70s

Grab Samples

Low-Flow Test Report:

Test Date / Time: 3/24/2020 9:51:53 AM

Project: Plant Yates - AP 3

Operator Name: Anna Schnittker

Location Name: YGWA-17S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30 ft Total Depth: 39.91 ft Initial Depth to Water: 9.94 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 35 ft Estimated Total Volume Pumped: 7.8 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 6 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

Sample time: 10:40

Weather: raining 60s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
3/24/2020 9:51 AM	00:00	5.50 pH	17.05 °C	66.27 µS/cm	3.17 mg/L		97.9 mV	9.94 ft	200.00 ml/min
3/24/2020 9:56 AM	05:00	5.51 pH	17.15 °C	67.67 µS/cm	2.56 mg/L	9.80 NTU	96.8 mV	10.40 ft	200.00 ml/min
3/24/2020 10:02 AM	10:29	5.53 pH	17.19 °C	68.50 µS/cm	2.37 mg/L	8.70 NTU	95.5 mV	10.40 ft	200.00 ml/min
3/24/2020 10:03 AM	11:40	5.54 pH	17.23 °C	67.95 µS/cm	2.37 mg/L	8.20 NTU	95.1 mV	10.40 ft	200.00 ml/min
3/24/2020 10:08 AM	16:40	5.55 pH	17.12 °C	68.31 µS/cm	2.36 mg/L	7.00 NTU	95.2 mV	10.40 ft	200.00 ml/min
3/24/2020 10:11 AM	19:18	5.53 pH	17.10 °C	68.30 µS/cm	2.34 mg/L	7.00 NTU	96.3 mV	10.40 ft	200.00 ml/min
3/24/2020 10:16 AM	24:18	5.56 pH	17.10 °C	68.99 µS/cm	2.30 mg/L	7.00 NTU	95.1 mV	10.40 ft	200.00 ml/min
3/24/2020 10:21 AM	29:18	5.55 pH	17.15 °C	69.07 µS/cm	2.33 mg/L	6.00 NTU	95.6 mV	10.40 ft	200.00 ml/min
3/24/2020 10:26 AM	34:18	5.57 pH	17.19 °C	69.70 µS/cm	2.34 mg/L	5.70 NTU	96.3 mV	10.40 ft	200.00 ml/min
3/24/2020 10:31 AM	39:18	5.57 pH	17.28 °C	69.25 µS/cm	2.34 mg/L	4.60 NTU	95.5 mV	10.40 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 3/24/2020 11:36:15 AM

Project: Plant Yates - AP 3

Operator Name: Anna Schnittker

Location Name: YGWA-18I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 70 ft Total Depth: 79.67 ft Initial Depth to Water: 19.8 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 75 ft Estimated Total Volume Pumped: 5.7 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 6 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

SAMPLE TIME: 12:10

Weather: Cloudy 60s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
3/24/2020 11:36 AM	00:00	6.07 pH	17.01 °C	93.10 µS/cm	3.56 mg/L		119.6 mV	19.80 ft	200.00 ml/min
3/24/2020 11:41 AM	05:00	5.98 pH	16.84 °C	94.28 µS/cm	3.53 mg/L	6.60 NTU	115.2 mV	20.30 ft	200.00 ml/min
3/24/2020 11:46 AM	10:00	5.97 pH	16.88 °C	94.13 µS/cm	3.55 mg/L	5.80 NTU	114.6 mV	20.30 ft	200.00 ml/min
3/24/2020 11:49 AM	13:40	5.97 pH	16.85 °C	94.10 µS/cm	3.56 mg/L	5.40 NTU	114.2 mV	20.30 ft	200.00 ml/min
3/24/2020 11:54 AM	18:40	5.98 pH	16.83 °C	95.03 µS/cm	3.61 mg/L	4.00 NTU	111.5 mV	20.30 ft	200.00 ml/min
3/24/2020 11:59 AM	23:40	5.96 pH	16.83 °C	95.29 µS/cm	3.66 mg/L	3.70 NTU	112.1 mV	20.30 ft	200.00 ml/min
3/24/2020 12:04 PM	28:40	5.98 pH	16.83 °C	95.12 µS/cm	3.67 mg/L	3.50 NTU	110.6 mV	20.30 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 3/24/2020 1:04:13 PM

Project: Plant Yates - AP 3

Operator Name: Anna Schnittker

Location Name: YGWA-18S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30 ft Total Depth: 39.86 ft Initial Depth to Water: 16.08 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 35 ft Estimated Total Volume Pumped: 12 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 9 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

SAMPLE TIME: 14:30

Weather: Cloudy 60s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
3/24/2020 1:04 PM	00:00	5.46 pH	18.44 °C	51.89 µS/cm	5.72 mg/L		116.6 mV	16.08 ft	150.00 ml/min
3/24/2020 1:09 PM	05:00	5.37 pH	17.72 °C	50.52 µS/cm	4.11 mg/L	15.60 NTU	113.6 mV	16.80 ft	150.00 ml/min
3/24/2020 1:14 PM	10:00	5.35 pH	17.55 °C	50.90 µS/cm	3.94 mg/L	11.80 NTU	113.4 mV	16.80 ft	150.00 ml/min
3/24/2020 1:19 PM	15:00	5.34 pH	17.50 °C	50.82 µS/cm	3.65 mg/L	12.00 NTU	113.0 mV	16.80 ft	150.00 ml/min
3/24/2020 1:24 PM	20:00	5.33 pH	17.82 °C	50.83 µS/cm	3.42 mg/L	11.10 NTU	112.3 mV	16.80 ft	150.00 ml/min
3/24/2020 1:29 PM	25:00	5.32 pH	18.79 °C	50.69 µS/cm	3.28 mg/L	9.20 NTU	111.2 mV	16.80 ft	150.00 ml/min
3/24/2020 1:34 PM	30:00	5.32 pH	18.84 °C	50.59 µS/cm	3.20 mg/L	8.50 NTU	110.7 mV	16.80 ft	150.00 ml/min
3/24/2020 1:39 PM	35:00	5.33 pH	18.46 °C	50.66 µS/cm	3.16 mg/L	8.30 NTU	110.4 mV	16.80 ft	150.00 ml/min
3/24/2020 1:44 PM	40:00	5.32 pH	19.15 °C	50.77 µS/cm	3.12 mg/L	7.60 NTU	109.7 mV	16.80 ft	150.00 ml/min
3/24/2020 1:49 PM	45:00	5.33 pH	18.39 °C	50.55 µS/cm	3.06 mg/L	6.60 NTU	109.8 mV	16.80 ft	150.00 ml/min
3/24/2020 1:54 PM	50:00	5.33 pH	17.97 °C	50.76 µS/cm	3.06 mg/L	6.30 NTU	109.7 mV	16.80 ft	150.00 ml/min
3/24/2020 1:59 PM	55:00	5.33 pH	17.85 °C	50.84 µS/cm	3.03 mg/L	5.80 NTU	109.5 mV	16.80 ft	150.00 ml/min
3/24/2020 2:04 PM	01:00:00	5.32 pH	18.50 °C	51.26 µS/cm	3.00 mg/L	5.20 NTU	110.6 mV	16.80 ft	150.00 ml/min
3/24/2020 2:09 PM	01:05:00	5.33 pH	19.02 °C	50.65 µS/cm	2.97 mg/L	5.10 NTU	108.6 mV	16.80 ft	150.00 ml/min
3/24/2020 2:14 PM	01:10:00	5.32 pH	18.86 °C	50.77 µS/cm	2.96 mg/L	5.40 NTU	108.6 mV	16.80 ft	150.00 ml/min

3/24/2020 2:19 PM	01:15:00	5.31 pH	18.71 °C	50.96 µS/cm	2.98 mg/L	5.10 NTU	108.2 mV	16.80 ft	150.00 ml/min
3/24/2020 2:24 PM	01:20:00	5.33 pH	18.54 °C	50.88 µS/cm	2.98 mg/L	3.80 NTU	108.0 mV	16.80 ft	150.00 ml/min

Samples

Sample ID:	Description:
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Product Name: Low-Flow System

Date: 2020-03-24 11:41:16

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 25 ft

Well Information:

Well ID YGWA-20S
Well diameter 2 in
Well Total Depth 29.71 ft
Screen Length 10 ft
Depth to Water 11.01 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 14 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	11:20:06	3900.00	16.75	5.85	58.44	7.10	12.06	7.20	87.12
Last 5	11:25:06	4200.00	16.82	5.85	58.34	6.60	12.11	7.20	88.37
Last 5	11:30:06	4500.00	16.82	5.86	58.29	5.80	12.15	7.19	89.35
Last 5	11:35:08	4802.00	16.82	5.86	58.28	5.10	12.19	7.15	90.75
Last 5	11:40:08	5102.00	16.83	5.86	58.22	4.40	12.24	7.21	92.00
Variance 0			0.00	0.01	-0.05			-0.01	0.98
Variance 1			-0.01	-0.00	-0.01			-0.04	1.39
Variance 2			0.01	0.00	-0.07			0.05	1.25

Notes

Sampled at 1140. Cloudy 66 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-24 12:56:14

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 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 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4470738 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	12:35:13	900.02	17.66	6.20	221.82	1.38	--	0.63	82.16
Last 5	12:40:13	1200.02	17.81	6.27	209.21	1.22	--	0.51	68.54
Last 5	12:45:13	1500.02	17.88	6.32	196.15	1.17	--	0.47	60.32
Last 5	12:50:13	1800.02	18.16	6.33	189.64	1.08	--	0.41	54.85
Last 5	12:55:13	2100.02	18.10	6.35	187.66	0.97	--	0.28	50.37
Variance 0			0.08	0.05	-13.06			-0.04	-8.22
Variance 1			0.28	0.02	-6.50			-0.06	-5.47
Variance 2			-0.06	0.01	-1.98			-0.13	-4.48

Notes

Sampled at 1255. Cloudy 68 degrees; Transducer in well - can not measure WL

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 10:06:21

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 69 ft

Pump placement from TOC 64 ft

Well Information:

Well ID YGWA-39
Well diameter 2 in
Well Total Depth 68.50 ft
Screen Length 10 ft
Depth to Water 21.31 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3979762 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	09:45:07	600.03	18.00	5.80	132.49	7.23	21.63	0.17	94.64
Last 5	09:50:07	900.02	18.03	5.77	131.15	4.44	21.69	0.10	92.12
Last 5	09:55:07	1200.02	18.00	5.78	126.58	2.82	21.77	0.10	90.92
Last 5	10:00:07	1500.02	18.00	5.78	124.39	2.56	21.83	0.10	90.26
Last 5	10:05:07	1800.02	17.90	5.78	123.21	2.22	21.90	0.10	90.05
Variance 0			-0.03	0.00	-4.56			-0.00	-1.20
Variance 1			0.00	0.00	-2.19			-0.00	-0.66
Variance 2			-0.10	-0.00	-1.18			0.00	-0.22

Notes

Sampled at 1005. Mostly cloudy 63 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-24 14:27:16

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 49 ft

Pump placement from TOC 44 ft

Well Information:

Well ID YGWA-40
Well diameter 2 in
Well Total Depth 48.35 ft
Screen Length 10 ft
Depth to Water 21.73 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3087077 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	14:06:32	600.02	18.62	5.47	103.26	5.54	22.45	5.93	56.66
Last 5	14:11:32	900.02	18.66	5.39	102.54	4.53	22.58	5.75	66.86
Last 5	14:16:32	1200.02	18.71	5.34	104.15	3.39	22.65	5.67	76.76
Last 5	14:21:32	1500.02	18.86	5.31	105.41	2.85	22.78	5.60	85.80
Last 5	14:26:32	1800.01	18.43	5.29	106.57	2.55	22.83	5.64	93.76
Variance 0			0.06	-0.05	1.61			-0.08	9.90
Variance 1			0.15	-0.04	1.26			-0.07	9.04
Variance 2			-0.43	-0.02	1.16			0.04	7.96

Notes

Sampled at 1426. Cloudy 72 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 11:03:50

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 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 ft

Pumping Information:

Final Pumping Rate 225 mL/min
Total System Volume 0.2640735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	10:43:20	600.03	17.95	5.70	123.27	4.44	--	7.68	153.33
Last 5	10:48:20	900.02	18.01	5.69	123.68	3.02	--	7.68	212.37
Last 5	10:53:20	1200.02	18.07	5.70	123.69	2.75	--	7.68	372.64
Last 5	10:58:20	1500.02	18.17	5.69	122.96	2.49	--	7.69	448.30
Last 5	11:03:20	1800.02	18.17	5.69	123.17	1.55	--	7.69	504.49
Variance 0			0.06	0.00	0.01			-0.00	160.27
Variance 1			0.10	-0.00	-0.73			0.01	75.66
Variance 2			0.00	-0.00	0.21			0.01	56.19

Notes

Sampled at 1103. Sunny 61 degrees; Transducer in well - can not measure WL

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 12:19:24

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 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 26.14 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.34444151 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 7 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	11:58:05	600.02	19.41	5.62	61.33	4.31	26.60	5.98	425.52
Last 5	12:03:05	900.02	19.45	5.59	61.06	3.84	26.66	5.91	437.87
Last 5	12:08:05	1200.02	19.58	5.57	60.72	3.65	26.74	5.81	452.56
Last 5	12:13:05	1500.02	19.59	5.57	60.61	2.10	26.80	5.79	470.14
Last 5	12:18:05	1800.02	19.62	5.57	60.92	1.65	26.88	5.78	493.84
Variance 0			0.12	-0.01	-0.34			-0.10	14.68
Variance 1			0.02	-0.00	-0.11			-0.02	17.58
Variance 2			0.02	-0.00	0.30			-0.01	23.70

Notes

Sampled at 1218. Sunny 70 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 12:47:57

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 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 200 mL/min
Total System Volume 0.2640735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	12:27:22	600.02	18.79	3.94	1046.09	1.70	--	1.16	142.67
Last 5	12:32:22	900.02	18.87	3.87	1040.14	1.55	--	0.93	173.80
Last 5	12:37:22	1200.02	18.85	3.86	1036.71	1.27	--	0.63	200.31
Last 5	12:42:22	1500.02	18.97	3.86	1033.72	1.23	--	0.43	223.15
Last 5	12:47:22	1800.02	19.06	3.86	1032.22	1.08	--	0.33	243.20
Variance 0			-0.02	-0.01	-3.44			-0.30	26.51
Variance 1			0.13	-0.00	-2.98			-0.20	22.83
Variance 2			0.08	-0.00	-1.50			-0.10	20.06

Notes

Sampled at 1247. Partly cloudy 71 degrees; Transducer in well - can not measure WL

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 12:46:24

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
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 60.00 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.9691639 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 14.5 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		+/- 0.3	+/- 25
Last 5	12:25:13	3600.04	18.96	5.49	227.69	1.13	--	2.35	696.21
Last 5	12:30:13	3900.05	19.06	5.48	228.68	1.27	--	2.36	716.32
Last 5	12:35:13	4200.05	19.01	5.49	228.57	1.49	--	2.35	720.30
Last 5	12:40:13	4500.05	19.05	5.46	229.17	1.12	--	2.37	726.80
Last 5	12:45:13	4800.05	19.07	5.49	229.26	1.08	--	2.38	729.23
Variance 0			-0.05	0.00	-0.11			-0.00	3.98
Variance 1			0.04	-0.02	0.60			0.01	6.50
Variance 2			0.02	0.03	0.09			0.01	2.43

Notes

Sampled at 12:45 on 3/25/20. Sunny, 80's. Transducer in well. Unable to get WL.

Grab Samples

Low-Flow Test Report:

Test Date / Time: 3/25/2020 2:50:09 PM

Project: Plant Yates - AP 3

Operator Name: Anna Schnittker

Location Name: YGWC-38 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 40 ft Total Depth: 50.12 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 45 ft Estimated Total Volume Pumped: 3.9 liter Flow Cell Volume: 90 ml Final Flow Rate: 130 ml/min	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

SAMPLE TIME: 15:25

Weather: Sunny 70s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
3/25/2020 2:50 PM	00:00	5.22 pH	34.13 °C	906.26 µS/cm	4.87 mg/L		154.3 mV		130.00 ml/min
3/25/2020 2:55 PM	05:00	4.94 pH	21.55 °C	920.89 µS/cm	3.45 mg/L	1.10 NTU	163.9 mV		130.00 ml/min
3/25/2020 3:00 PM	10:00	4.90 pH	20.25 °C	910.07 µS/cm	3.14 mg/L	1.10 NTU	152.9 mV		130.00 ml/min
3/25/2020 3:05 PM	15:00	4.89 pH	19.93 °C	911.34 µS/cm	3.05 mg/L	1.00 NTU	150.7 mV		130.00 ml/min
3/25/2020 3:10 PM	20:00	4.88 pH	19.89 °C	919.27 µS/cm	3.14 mg/L	1.00 NTU	157.2 mV		130.00 ml/min
3/25/2020 3:15 PM	25:00	4.88 pH	19.78 °C	930.22 µS/cm	2.96 mg/L	0.90 NTU	147.8 mV		130.00 ml/min
3/25/2020 3:20 PM	30:00	4.89 pH	19.99 °C	934.69 µS/cm	2.86 mg/L	0.60 NTU	146.3 mV		130.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 3/25/2020 1:19:54 PM

Project: Plant Yates - AP 3

Operator Name: Anna Schnittker

Location Name: YGWC-41 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 57 ft Total Depth: 67.7 ft Initial Depth to Water: 23.84 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 62 ft Estimated Total Volume Pumped: 4.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 140 ml/min Final Draw Down: 11 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

SAMPLE TIME: 14:00

Weather: sunny 70s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
3/25/2020 1:19 PM	00:00	4.90 pH	21.29 °C	484.35 µS/cm	3.55 mg/L		134.5 mV	23.84 ft	140.00 ml/min
3/25/2020 1:24 PM	05:00	4.88 pH	20.40 °C	478.92 µS/cm	3.42 mg/L	1.30 NTU	134.6 mV	24.7 ft	140.00 ml/min
3/25/2020 1:29 PM	10:00	4.87 pH	20.33 °C	476.72 µS/cm	3.30 mg/L	1.20 NTU	134.2 mV	24.7 ft	140.00 ml/min
3/25/2020 1:34 PM	15:00	4.87 pH	20.45 °C	479.69 µS/cm	3.37 mg/L	1.30 NTU	134.0 mV	24.7 ft	140.00 ml/min
3/25/2020 1:39 PM	20:00	4.87 pH	20.44 °C	478.70 µS/cm	3.47 mg/L	1.20 NTU	140.1 mV	24.7ft	140.00 ml/min
3/25/2020 1:44 PM	25:00	4.87 pH	20.31 °C	478.76 µS/cm	3.48 mg/L	0.90 NTU	140.4 mV	24.7 ft	140.00 ml/min
3/25/2020 1:49 PM	30:00	4.87 pH	20.26 °C	477.52 µS/cm	3.61 mg/L	0.80 NTU	140.5 mV	24.7 ft	140.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 3/25/2020 9:54:29 AM

Project: Plant Yates - AP 3

Operator Name: Anna Schnittker

Location Name: YGWC-42 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 50 ft Total Depth: 60 ft Initial Depth to Water: 24.1 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 55 ft Estimated Total Volume Pumped: 7.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 30 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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Test Notes:

SAMPLE TIME: 10:50

Weather: Sunny 60s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
3/25/2020 9:54 AM	00:00	5.65 pH	19.06 °C	1,181.3 µS/cm	4.83 mg/L		169.5 mV	24.10 ft	150.00 ml/min
3/25/2020 9:59 AM	05:00	5.62 pH	17.84 °C	1,154.5 µS/cm	1.16 mg/L	40.10 NTU	148.5 mV	26.60 ft	150.00 ml/min
3/25/2020 10:04 AM	10:00	5.62 pH	17.73 °C	1,154.2 µS/cm	0.73 mg/L	34.60 NTU	159.3 mV	26.60 ft	150.00 ml/min
3/25/2020 10:09 AM	15:00	5.61 pH	17.82 °C	1,137.0 µS/cm	0.55 mg/L	27.70 NTU	147.3 mV	26.60 ft	150.00 ml/min
3/25/2020 10:14 AM	20:00	5.60 pH	17.90 °C	1,134.6 µS/cm	0.52 mg/L	15.80 NTU	146.3 mV	26.60 ft	150.00 ml/min
3/25/2020 10:19 AM	25:00	5.58 pH	17.94 °C	1,137.5 µS/cm	0.55 mg/L	9.30 NTU	145.2 mV	26.60 ft	150.00 ml/min
3/25/2020 10:24 AM	30:00	5.56 pH	18.08 °C	1,146.2 µS/cm	0.64 mg/L	7.80 NTU	144.0 mV	26.60 ft	150.00 ml/min
3/25/2020 10:29 AM	35:00	5.55 pH	18.25 °C	1,156.0 µS/cm	0.73 mg/L	5.10 NTU	142.8 mV	26.60 ft	150.00 ml/min
3/25/2020 10:34 AM	40:00	5.54 pH	18.25 °C	1,165.5 µS/cm	0.80 mg/L	4.50 NTU	141.9 mV	26.60 ft	150.00 ml/min
3/25/2020 10:39 AM	45:00	5.54 pH	18.52 °C	1,171.7 µS/cm	0.82 mg/L	4.00 NTU	140.9 mV	26.60 ft	150.00 ml/min
3/25/2020 10:44 AM	50:00	5.53 pH	18.46 °C	1,179.1 µS/cm	0.88 mg/L	3.90 NTU	140.0 mV	26.60 ft	150.00 ml/min

Samples

Sample ID:	Description:
------------	--------------

Product Name: Low-Flow System

Date: 2020-03-25 11:23:47

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80.00 ft
Screen Length 10 ft
Depth to Water 13.85 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4470738 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	11:03:04	900.03	17.83	5.75	470.72	11.70	14.06	0.27	83.10
Last 5	11:08:04	1200.02	17.94	5.77	472.60	7.29	14.12	0.13	79.41
Last 5	11:13:04	1500.02	17.98	5.78	473.85	5.05	14.19	0.10	76.50
Last 5	11:18:04	1800.02	18.06	5.79	474.68	4.23	14.25	0.10	73.80
Last 5	11:23:04	2100.02	18.12	5.79	475.71	3.99	14.31	0.10	71.55
Variance 0			0.05	0.01	1.24			-0.03	-2.91
Variance 1			0.08	0.00	0.83			-0.00	-2.70
Variance 2			0.06	0.01	1.03			0.00	-2.25

Notes

Sampled at 1123. Partly cloudy 67 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 14:18:35

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name Plant Yates R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 79 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79.00 ft
Screen Length 10 ft
Depth to Water 29.08 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4426104 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11 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			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 25
Last 5	13:57:52	600.02	19.58	5.72	248.30	7.67	29.65	2.77	225.91
Last 5	14:02:52	900.02	19.68	5.71	246.88	4.89	29.71	2.56	227.58
Last 5	14:07:52	1200.02	19.69	5.70	246.75	3.14	29.79	2.34	229.73
Last 5	14:12:52	1500.02	19.81	5.69	247.53	2.58	29.86	2.29	232.59
Last 5	14:17:52	1800.02	19.76	5.69	248.09	2.26	29.95	2.28	235.92
Variance 0			0.01	-0.01	-0.13			-0.22	2.15
Variance 1			0.12	-0.01	0.78			-0.05	2.86
Variance 2			-0.05	-0.00	0.56			-0.01	3.33

Notes

Sampled at 1417. Sunny 74 degrees

Grab Samples

APPENDIX C

Analytical Lab Data and Validation Reports (February and March 2020)



February 2020

Scan Event



LEVEL 2A LABORATORY DATA VALIDATIONS

Plant Yates AMA/R6

Scan Event February 2020

Georgia Power Company – Plant Yates AMA/R6

Quality Control Review of Analytical Data – February 2020

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Atlanta, Asheville, and Pittsburgh for groundwater samples collected at Plant Yates AMA/R6 between February 11, 2020 and February 17, 2020. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)¹ and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)². The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains-of-custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

DATA QUALITY OBJECTIVES

- Laboratory Precision:** Laboratory goals for precision were met, with the exception of Radium-226 on YGWA-18I (2628973003) as described in the qualifications section below.
- Field Precision:** Field goals for precision were met, with the exceptions of Arsenic and Chromium on YGWA-18I (2628973003) and DUP-1 (2628973008) and Barium on YGWC-24S (2628973013) and DUP-2 (2628973014) as described in the qualifications section below.
- Accuracy:** Laboratory goals for accuracy were met, with the exceptions of Fluoride on YGWA-20S (2628973010) and YGWC-38 (2628973021) as described in the qualifications section below.
- Detection Limits:** Project goals for detection limits were met.
- Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.
- Holding Times:** Holding time requirements were met.

QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

- J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample
- ND:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples YGWA-18I (2628973003) and DUP-1 (268973008) were qualified as estimated (J) for Arsenic and Chromium as the respective field relative percent differences (RPDs) exceeded QC criteria (39.32% and 28.57% above limit of 25).
- Samples YGWC-24S (2628973013) and DUP-2 (2628973014) were qualified as estimated (J) for Barium as the field RPD exceeded QC criteria (140.74% above limit of 25).
- Sample YGWA-20S (2628973010) was qualified as estimated (J) for Fluoride as the associated matrix spike (MS) recovery was below the QC criteria (89% below the range of 90-110).
- Sample YGWC-38 (2628973021) was qualified as estimated (J) for Fluoride as the associated MS and matrix spike duplicate (MSD) recoveries were above the QC criteria (118 % and 115% above the range of 90-110).
- Sample YGWA-18I (2628973003) was qualified as estimated (J) for Radium-226 as the laboratory RPD exceeded QC criteria (84.62% above limit of 25).
- Certain arsenic results in SDG 2628973 were qualified as non-detect (ND) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the method detection limit (MDL) was raised to the sample result as part of the qualification process.
- Certain Radium results in SDG 2628973 were qualified as non-detect (ND) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the minimum detectable concentration (MDC) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from the Plant Yates AMA/R6 sampled between February 11, 2020 and February 17, 2020 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

REFERENCES

¹USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

²USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – Plant Yates AMA/R6

Sample Summary Table – February 2020

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses		
						Metals (6020B, 7470A)	Anions (300.0)	Radium-226/-228 (9315, 9320)
28973	YGWA-18S	2/11/2020	2628973001	GW		X	X	X
28973	YGWA-17S	2/11/2020	2628973002	GW		X	X	X
28973	YGWA-18I	2/11/2020	2628973003	GW		X	X	X
28973	YGWA-5D	2/12/2020	2628973004	GW		X	X	X
28973	YGWA-40	2/12/2020	2628973005	GW		X	X	X
28973	YGWA-5I	2/12/2020	2628973001	GW		X	X	X
28973	FB-1-2-12-20	2/12/2020	2628973007	WQ	FB	X	X	X
28973	DUP-1	2/11/2020	2628973008	GW	FD (YGWA-18I)	X	X	X
28973	YGWA-4I	2/12/2020	2628973009	GW		X	X	X
28973	YGWA-20S	2/12/2020	2628973010	GW		X	X	X
28973	YGWA-39	2/12/2020	2628973011	GW		X	X	X
28973	YGWA-21I	2/12/2020	2628973012	GW		X	X	X
28973	YGWC-24S	2/13/2020	2628973013	GW		X	X	X
28973	DUP-2	2/13/2020	2628973014	GW	FD (YGWC-24S)	X	X	X
28973	EB-1-2-14-20	2/14/2020	2628973015	WQ	EB	X	X	X
28973	YGWC-41	2/14/2020	2628973016	GW		X	X	X
28973	YGWC-33S	2/14/2020	2628973017	GW		X	X	X
28973	YGWC-36	2/14/2020	2628973018	WQ		X	X	X
28973	YGWC-42	2/14/2020	2628973019	GW		X	X	X
28973	FB-2-2-14-20	2/14/2020	2628973020	WQ	FB	X	X	X
28973	YGWC-38	2/14/2020	2628973021	GW		X	X	X
28973	YGWC-43	2/17/2020	2628973022	GW		X	X	X
28973	EB-2-2-17-20	2/17/2020	2628973023	WQ	EB	X	X	X
28973	YGWC-23S	2/17/2020	2628973024	GW		X	X	X
28973	YGWC-49	2/17/2020	2628973025	GW		X	X	X

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

WQ – Water Quality Control

TABLE 2

Georgia Power Company – Plant Yates AMA/R6

Qualifier Summary Table – February 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
28973	YGWA-18I	Arsenic			J	RPD exceeds field goal
28973	DUP-1	Arsenic			J	RPD exceeds field goal
28973	YGWA-18I	Chromium			J	RPD exceeds field goal
28973	DUP-1	Chromium			J	RPD exceeds field goal
28973	YGWC-24S	Barium			J	RPD exceeds field goal
28973	DUP-2	Barium			J	RPD exceeds field goal
28973	YGWA-20S	Fluoride			J	MSD recovery below QC criteria
28973	YGWC-38	Fluoride			J	MS/MSD recoveries above QC criteria
28973	YGWA-18S	Arsenic		0.0026	ND	Blank detection
28973	YGWA-17S	Arsenic		0.0022	ND	Blank detection
28973	YGWA-18I	Arsenic		0.0014	ND	Blank detection
28973	YGWA-5D	Arsenic		0.0046	ND	Blank detection
28973	YGWA-40	Arsenic		0.0034	ND	Blank detection
28973	YGWA-5I	Arsenic		0.0020	ND	Blank detection
28973	YGWA-18I	Radium-226			J	RPD exceeds laboratory goal
28973	YGWA-18S	Radium-226		0.389	ND	Blank detection
28973	YGWA-18S	Radium-228		0.599	ND	Blank detection
28973	YGWA-17S	Radium-226		0.343	ND	Blank detection
28973	YGWA-17S	Radium-228		0.612	ND	Blank detection
28973	YGWA-18I	Radium-226		0.487	ND	Blank detection
28973	YGWA-18I	Radium-228		0.763	ND	Blank detection
28973	YGWA-5D	Radium-226		0.346	ND	Blank detection
28973	YGWA-5D	Radium-228		0.677	ND	Blank detection
28973	YGWA-40	Radium-226		0.419	ND	Blank detection
28973	YGWA-40	Radium-228		0.650	ND	Blank detection
28973	YGWA-5I	Radium-226		0.458	ND	Blank detection
28973	YGWA-5I	Radium-228		0.664	ND	Blank detection
28973	YGWA-4I	Radium-226		0.270	ND	Blank detection
28973	YGWA-4I	Radium-228		0.732	ND	Blank detection

Abbreviations:

MDC – Minimum Detectable Concentration
MS/MSD – Matrix Spike / Matrix Spike Duplicate
MDL – Method Detection Limit
RL – Reporting Limit
RPD – Relative Percent Difference
SDG – Sample Delivery Group

Qualifiers:

J – Estimated Result
ND – Non-Detect Result

TABLE 2 (continued)

Georgia Power Company – Plant Yates AMA/R6

Qualifier Summary Table – February 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
28973	YGWA-20S	Radium-226		0.282	ND	Blank detection
28973	YGWA-20S	Radium-228		1.01	ND	Blank detection
28973	YGWA-39	Radium-226		0.243	ND	Blank detection
28973	YGWA-39	Radium-228		0.825	ND	Blank detection
28973	YGWA-21I	Radium-226		0.339	ND	Blank detection
28973	YGWA-21I	Radium-228		1.05	ND	Blank detection
28973	YGWC-24S	Radium-226		0.239	ND	Blank detection
28973	YGWC-24S	Radium-228		0.891	ND	Blank detection
28973	YGWC-41	Radium-226		0.402	ND	Blank detection
28973	YGWC-41	Radium-228		0.792	ND	Blank detection
28973	YGWC-33S	Radium-226		0.426	ND	Blank detection
28973	YGWC-33S	Radium-228		0.838	ND	Blank detection
28973	YGWC-36	Radium-226		0.358	ND	Blank detection
28973	YGWC-36	Radium-228		0.808	ND	Blank detection
28973	YGWC-42	Radium-226		0.400	ND	Blank detection
28973	YGWC-42	Radium-228		0.707	ND	Blank detection
28973	YGWC-38	Radium-228		0.820	ND	Blank detection
28973	YGWC-43	Radium-226		0.543	ND	Blank detection
28973	YGWC-43	Radium-228		0.793	ND	Blank detection
28973	YGWC-23S	Radium-228		0.841	ND	Blank detection
28973	YGWC-49	Radium-228		0.697	ND	Blank detection

Abbreviations:

MDC – Minimum Detectable Concentration
 MS/MSD – Matrix Spike / Matrix Spike Duplicate
 MDL – Method Detection Limit
 RL – Reporting Limit
 RPD – Relative Percent Difference
 SDG – Sample Delivery Group

Qualifiers:

J – Estimated Result
 ND – Non-Detect Result

March 02, 2020

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

RE: Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 12, 2020 and February 17, 2020. 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,



Kevin Herring
kevin.herring@pacelabs.com
(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Monte Jones, ACC
Kristen Jurinko
Matt Malone, Atlantic Coast Consulting
Betsy McDaniel, Atlantic Coast Consulting
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Ryan Walker



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Pace Analytical Services Atlanta

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2628973001	YGWA-18S	Water	02/11/20 12:39	02/12/20 15:15
2628973002	YGWA-17S	Water	02/11/20 11:21	02/12/20 15:15
2628973003	YGWA-18I	Water	02/11/20 13:56	02/12/20 15:15
2628973004	YGWA-5D	Water	02/12/20 10:38	02/12/20 15:15
2628973005	YGWA-40	Water	02/12/20 10:42	02/12/20 15:15
2628973006	YGWA-5I	Water	02/12/20 11:55	02/12/20 15:15
2628973007	FB-1-2-12-20	Water	02/12/20 10:20	02/12/20 15:15
2628973008	DUP-1	Water	02/11/20 00:00	02/12/20 15:15
2628973009	YGWA-4I	Water	02/12/20 13:48	02/14/20 14:39
2628973010	YGWA-20S	Water	02/12/20 13:45	02/14/20 14:39
2628973011	YGWA-39	Water	02/12/20 12:20	02/14/20 14:39
2628973012	YGWA-21I	Water	02/12/20 14:45	02/14/20 14:39
2628973013	YGWC-24S	Water	02/13/20 14:53	02/14/20 14:39
2628973014	DUP-2	Water	02/13/20 00:00	02/14/20 14:39
2628973015	EB-1-2-14-20	Water	02/14/20 09:45	02/14/20 14:39
2628973016	YGWC-41	Water	02/14/20 10:00	02/14/20 14:39
2628973017	YGWC-33S	Water	02/14/20 11:40	02/14/20 14:39
2628973018	YGWC-36	Water	02/14/20 11:55	02/14/20 14:39
2628973019	YGWC-42	Water	02/14/20 10:30	02/14/20 14:39
2628973020	FB-2-2-14-20	Water	02/14/20 12:00	02/14/20 14:39
2628973021	YGWC-38	Water	02/14/20 13:25	02/17/20 16:37
2628973022	YGWC-43	Water	02/17/20 12:00	02/17/20 16:37
2628973023	EB-2-2-17-20	Water	02/17/20 11:50	02/17/20 16:37
2628973024	YGWC-23S	Water	02/17/20 13:20	02/17/20 16:37
2628973025	YGWC-49	Water	02/17/20 14:30	02/17/20 16:37

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628973001	YGWA-18S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973002	YGWA-17S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973003	YGWA-18I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973004	YGWA-5D	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973005	YGWA-40	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973006	YGWA-5I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973007	FB-1-2-12-20	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973008	DUP-1	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973009	YGWA-4I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973010	YGWA-20S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973011	YGWA-39	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973012	YGWA-21I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628973013	YGWC-24S	EPA 6020B	CSW	12	PASI-GA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628973014	DUP-2	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973015	EB-1-2-14-20	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973016	YGWC-41	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973017	YGWC-33S	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973018	YGWC-36	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973019	YGWC-42	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973020	FB-2-2-14-20	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973021	YGWC-38	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973022	YGWC-43	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973023	EB-2-2-17-20	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973024	YGWC-23S	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628973025	YGWC-49	EPA 7470A	DRB	1	PASI-GA
		EPA 6020B	CSW	12	PASI-GA

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SAMPLE ANALYTE COUNT

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2628973001	YGWA-18S					
	Field pH	5.30	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0026J	mg/L	0.0050	02/20/20 20:37	B
EPA 6020B	Barium	0.019	mg/L	0.010	02/20/20 20:37	
EPA 6020B	Beryllium	0.000076J	mg/L	0.0030	02/20/20 20:37	
EPA 6020B	Chromium	0.00088J	mg/L	0.010	02/20/20 20:37	
EPA 6020B	Lithium	0.0050J	mg/L	0.030	02/20/20 20:37	
2628973002	YGWA-17S					
	Field pH	5.58	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0022J	mg/L	0.0050	02/20/20 20:43	B
EPA 6020B	Barium	0.015	mg/L	0.010	02/20/20 20:43	
EPA 6020B	Beryllium	0.000078J	mg/L	0.0030	02/20/20 20:43	
EPA 6020B	Chromium	0.00087J	mg/L	0.010	02/20/20 20:43	
2628973003	YGWA-18I					
	Field pH	6.07	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0014J	mg/L	0.0050	02/20/20 20:48	B
EPA 6020B	Barium	0.022	mg/L	0.010	02/20/20 20:48	
EPA 6020B	Chromium	0.0010J	mg/L	0.010	02/20/20 20:48	
EPA 6020B	Lithium	0.0033J	mg/L	0.030	02/20/20 20:48	
2628973004	YGWA-5D					
	Field pH	7.52	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0046J	mg/L	0.0050	02/20/20 20:54	B
EPA 6020B	Barium	0.0079J	mg/L	0.010	02/20/20 20:54	
EPA 6020B	Cobalt	0.00037J	mg/L	0.0050	02/20/20 20:54	
EPA 6020B	Lithium	0.0066J	mg/L	0.030	02/20/20 20:54	
EPA 6020B	Molybdenum	0.0011J	mg/L	0.010	02/20/20 20:54	
2628973005	YGWA-40					
	Field pH	5.30	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0034J	mg/L	0.0050	02/20/20 21:00	B
EPA 6020B	Barium	0.035	mg/L	0.010	02/20/20 21:00	
EPA 6020B	Beryllium	0.00018J	mg/L	0.0030	02/20/20 21:00	
EPA 6020B	Chromium	0.00065J	mg/L	0.010	02/20/20 21:00	
EPA 6020B	Selenium	0.0020J	mg/L	0.010	02/20/20 21:00	
2628973006	YGWA-5I					
	Field pH	5.83	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0020J	mg/L	0.0050	02/20/20 21:06	B
EPA 6020B	Barium	0.021	mg/L	0.010	02/20/20 21:06	
EPA 6020B	Chromium	0.00043J	mg/L	0.010	02/20/20 21:06	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	02/20/20 21:06	
2628973007	FB-1-2-12-20					
EPA 6020B	Arsenic	0.0014J	mg/L	0.0050	02/20/20 21:11	B
2628973008	DUP-1					
EPA 6020B	Arsenic	0.00094J	mg/L	0.0050	02/20/20 21:17	B
EPA 6020B	Barium	0.023	mg/L	0.010	02/20/20 21:17	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2628973008	DUP-1					
EPA 6020B	Chromium	0.00075J	mg/L	0.010	02/20/20 21:17	
EPA 6020B	Lithium	0.0033J	mg/L	0.030	02/20/20 21:17	
2628973009	YGWA-4I					
	Field pH	6.15	Std. Units		02/17/20 08:42	
EPA 6020B	Barium	0.012	mg/L	0.010	02/24/20 17:18	
EPA 6020B	Lithium	0.011J	mg/L	0.030	02/24/20 17:18	
2628973010	YGWA-20S					
	Field pH	6.0	Std. Units		02/17/20 08:42	
EPA 6020B	Barium	0.014	mg/L	0.010	02/24/20 18:48	
EPA 6020B	Beryllium	0.000078J	mg/L	0.0030	02/24/20 18:48	
EPA 6020B	Chromium	0.00045J	mg/L	0.010	02/24/20 18:48	
2628973011	YGWA-39					
	Field pH	5.97	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.00058J	mg/L	0.0050	02/24/20 18:54	
EPA 6020B	Barium	0.011	mg/L	0.010	02/24/20 18:54	
EPA 6020B	Cobalt	0.00034J	mg/L	0.0050	02/24/20 18:54	
EPA 6020B	Lithium	0.0041J	mg/L	0.030	02/24/20 18:54	
EPA 6020B	Molybdenum	0.0025J	mg/L	0.010	02/24/20 18:54	
2628973012	YGWA-21I					
	Field pH	7.13	Std. Units		02/17/20 08:42	
EPA 6020B	Antimony	0.0015J	mg/L	0.0030	02/24/20 18:59	
EPA 6020B	Arsenic	0.0025J	mg/L	0.0050	02/24/20 18:59	
EPA 6020B	Barium	0.011	mg/L	0.010	02/24/20 18:59	
EPA 6020B	Cobalt	0.0081	mg/L	0.0050	02/24/20 18:59	
EPA 6020B	Lithium	0.0065J	mg/L	0.030	02/24/20 18:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10J	mg/L	0.30	02/20/20 11:08	
2628973013	YGWC-24S					
	Field pH	5.69	Std. Units		02/17/20 08:42	
EPA 6020B	Barium	0.016	mg/L	0.010	02/24/20 19:05	
EPA 6020B	Beryllium	0.00014J	mg/L	0.0030	02/24/20 19:05	
2628973014	DUP-2					
EPA 6020B	Barium	0.092	mg/L	0.010	02/24/20 19:11	
EPA 6020B	Cobalt	0.0025J	mg/L	0.0050	02/24/20 19:11	
EPA 6020B	Lead	0.000077J	mg/L	0.0050	02/24/20 19:11	
EPA 6020B	Thallium	0.00010J	mg/L	0.0010	02/24/20 19:11	
EPA 300.0 Rev 2.1 1993	Fluoride	0.093J	mg/L	0.30	02/20/20 11:38	
2628973016	YGWC-4I					
	Field pH	4.84	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0014J	mg/L	0.0050	02/26/20 18:31	
EPA 6020B	Barium	0.024	mg/L	0.010	02/26/20 18:31	
EPA 6020B	Beryllium	0.0026J	mg/L	0.0030	02/26/20 18:31	
EPA 6020B	Cadmium	0.00020J	mg/L	0.0025	02/26/20 18:31	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	02/26/20 18:31	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA AND R6 FEB
 Pace Project No.: 2628973

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2628973016	YGWC-41					
EPA 6020B	Selenium	0.059	mg/L	0.010	02/26/20 18:31	
2628973017	YGWC-33S					
	Field pH	3.76	Std. Units		02/17/20 08:42	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	02/26/20 18:54	
EPA 6020B	Arsenic	0.0027J	mg/L	0.0050	02/26/20 18:54	
EPA 6020B	Barium	0.013	mg/L	0.010	02/26/20 18:54	
EPA 6020B	Beryllium	0.016	mg/L	0.0030	02/26/20 18:54	
EPA 6020B	Cadmium	0.0021J	mg/L	0.0025	02/26/20 18:54	
EPA 6020B	Chromium	0.00078J	mg/L	0.010	02/26/20 18:54	
EPA 6020B	Cobalt	0.023	mg/L	0.0050	02/26/20 18:54	
EPA 6020B	Lead	0.0010J	mg/L	0.0050	02/26/20 18:54	
EPA 6020B	Lithium	0.024J	mg/L	0.030	02/26/20 18:54	
EPA 6020B	Selenium	0.015	mg/L	0.010	02/26/20 18:54	
EPA 6020B	Thallium	0.00019J	mg/L	0.0010	02/26/20 18:54	
EPA 300.0 Rev 2.1 1993	Fluoride	0.23J	mg/L	0.30	02/20/20 12:22	
2628973018	YGWC-36					
	Field pH	5.71	Std. Units		02/17/20 08:42	
EPA 6020B	Antimony	0.0027J	mg/L	0.0030	02/26/20 19:00	
EPA 6020B	Arsenic	0.0026J	mg/L	0.0050	02/26/20 19:00	
EPA 6020B	Barium	0.026	mg/L	0.010	02/26/20 19:00	
EPA 6020B	Beryllium	0.00019J	mg/L	0.0030	02/26/20 19:00	
EPA 6020B	Cadmium	0.00017J	mg/L	0.0025	02/26/20 19:00	
EPA 6020B	Cobalt	0.00041J	mg/L	0.0050	02/26/20 19:00	
EPA 6020B	Lead	0.00016J	mg/L	0.0050	02/26/20 19:00	
EPA 6020B	Lithium	0.0024J	mg/L	0.030	02/26/20 19:00	
EPA 6020B	Selenium	0.0020J	mg/L	0.010	02/26/20 19:00	
EPA 6020B	Thallium	0.000057J	mg/L	0.0010	02/26/20 19:00	
2628973019	YGWC-42					
	Field pH	5.80	Std. Units		02/17/20 08:42	
EPA 6020B	Arsenic	0.0033J	mg/L	0.0050	02/26/20 19:05	
EPA 6020B	Barium	0.031	mg/L	0.010	02/26/20 19:05	
EPA 6020B	Cadmium	0.00025J	mg/L	0.0025	02/26/20 19:05	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	02/26/20 19:05	
EPA 6020B	Lithium	0.038	mg/L	0.030	02/26/20 19:05	
EPA 6020B	Selenium	0.040	mg/L	0.010	02/26/20 19:05	
2628973020	FB-2-2-14-20					
EPA 6020B	Arsenic	0.0023J	mg/L	0.0050	02/26/20 19:25	
2628973021	YGWC-38					
	Field pH	4.84	Std. Units		02/27/20 08:48	
EPA 6020B	Antimony	0.00031J	mg/L	0.0030	02/26/20 19:31	
EPA 6020B	Arsenic	0.0021J	mg/L	0.0050	02/26/20 19:31	
EPA 6020B	Barium	0.019	mg/L	0.010	02/26/20 19:31	
EPA 6020B	Beryllium	0.0042	mg/L	0.0030	02/26/20 19:31	
EPA 6020B	Cadmium	0.0021J	mg/L	0.0025	02/26/20 19:31	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2628973021	YGWC-38					
EPA 6020B	Chromium	0.0023J	mg/L	0.010	02/26/20 19:31	
EPA 6020B	Lithium	0.0076J	mg/L	0.030	02/26/20 19:31	
EPA 6020B	Selenium	0.11	mg/L	0.010	02/26/20 19:31	
2628973022	YGWC-43					
	Field pH	5.93	Std. Units		02/27/20 08:48	
EPA 6020B	Barium	0.037	mg/L	0.010	02/26/20 19:36	
EPA 6020B	Beryllium	0.00034J	mg/L	0.0030	02/26/20 19:36	
EPA 6020B	Cobalt	0.00088J	mg/L	0.0050	02/26/20 19:36	
EPA 6020B	Lithium	0.015J	mg/L	0.030	02/26/20 19:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15J	mg/L	0.30	02/26/20 16:39	
2628973024	YGWC-23S					
	Field pH	5.84	Std. Units		02/27/20 08:48	
EPA 6020B	Arsenic	0.0019J	mg/L	0.0050	02/26/20 19:48	
EPA 6020B	Barium	0.024	mg/L	0.010	02/26/20 19:48	
EPA 6020B	Beryllium	0.000081J	mg/L	0.0030	02/26/20 19:48	
EPA 6020B	Chromium	0.00087J	mg/L	0.010	02/26/20 19:48	
EPA 6020B	Lithium	0.0021J	mg/L	0.030	02/26/20 19:48	
EPA 6020B	Selenium	0.020	mg/L	0.010	02/26/20 19:48	
2628973025	YGWC-49					
	Field pH	5.82	Std. Units		02/27/20 08:49	
EPA 6020B	Arsenic	0.0028J	mg/L	0.0050	02/26/20 19:53	
EPA 6020B	Barium	0.071	mg/L	0.010	02/26/20 19:53	
EPA 6020B	Beryllium	0.00011J	mg/L	0.0030	02/26/20 19:53	
EPA 6020B	Chromium	0.0020J	mg/L	0.010	02/26/20 19:53	
EPA 6020B	Lead	0.000071J	mg/L	0.0050	02/26/20 19:53	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	02/26/20 19:53	
EPA 6020B	Selenium	0.0068J	mg/L	0.010	02/26/20 19:53	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-18S		Lab ID: 2628973001		Collected: 02/11/20 12:39		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	5.30	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:37	7440-36-0	
Arsenic	0.0026J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:37	7440-38-2	B
Barium	0.019	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:37	7440-39-3	
Beryllium	0.000076J	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:37	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:37	7440-43-9	
Chromium	0.00088J	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:37	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:37	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:37	7439-92-1	
Lithium	0.0050J	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:37	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:19	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/18/20 14:41	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-17S		Lab ID: 2628973002		Collected: 02/11/20 11:21		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	5.58	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:43	7440-36-0	
Arsenic	0.0022J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:43	7440-38-2	B
Barium	0.015	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:43	7440-39-3	
Beryllium	0.000078J	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:43	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:43	7440-43-9	
Chromium	0.00087J	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:43	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:43	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:43	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:43	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:43	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:21	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/18/20 14:55	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-181		Lab ID: 2628973003		Collected: 02/11/20 13:56		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	6.07	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:48	7440-36-0	
Arsenic	0.0014J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:48	7440-38-2	B
Barium	0.022	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:48	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:48	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:48	7440-43-9	
Chromium	0.0010J	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:48	7439-92-1	
Lithium	0.0033J	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:23	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/18/20 15:10	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-5D		Lab ID: 2628973004		Collected: 02/12/20 10:38		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	7.52	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:54	7440-36-0	
Arsenic	0.0046J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:54	7440-38-2	B
Barium	0.0079J	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:54	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:54	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:54	7440-47-3	
Cobalt	0.00037J	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:54	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:54	7439-92-1	
Lithium	0.0066J	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:54	7439-93-2	
Molybdenum	0.0011J	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:26	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/18/20 15:55	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-40		Lab ID: 2628973005		Collected: 02/12/20 10:42		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	5.30	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 21:00	7440-36-0	
Arsenic	0.0034J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 21:00	7440-38-2	B
Barium	0.035	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 21:00	7440-39-3	
Beryllium	0.00018J	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 21:00	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 21:00	7440-43-9	
Chromium	0.00065J	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 21:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 21:00	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 21:00	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 21:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 21:00	7439-98-7	
Selenium	0.0020J	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 21:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 21:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:28	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/18/20 16:09	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Sample: YGWA-5I		Lab ID: 2628973006		Collected: 02/12/20 11:55		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method:									
Field pH	5.83	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 21:06	7440-36-0	
Arsenic	0.0020J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 21:06	7440-38-2	B
Barium	0.021	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 21:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 21:06	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 21:06	7440-43-9	
Chromium	0.00043J	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 21:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 21:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 21:06	7439-92-1	
Lithium	0.0032J	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 21:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 21:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 21:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 21:06	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:30	7439-97-6	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 08:21	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Sample: FB-1-2-12-20		Lab ID: 2628973007		Collected: 02/12/20 10:20		Received: 02/12/20 15:15		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	0.00027	1	02/19/20 13:38	02/20/20 21:11	7440-36-0		
Arsenic	0.0014J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 21:11	7440-38-2	B	
Barium	ND	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 21:11	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 21:11	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 21:11	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 21:11	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 21:11	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 21:11	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 21:11	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 21:11	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 21:11	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 21:11	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:37	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 08:36	16984-48-8		

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: DUP-1		Lab ID: 2628973008		Collected: 02/11/20 00:00		Received: 02/12/20 15:15		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	0.00027	1	02/19/20 13:38	02/20/20 21:17	7440-36-0	
Arsenic	0.00094J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 21:17	7440-38-2	B
Barium	0.023	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 21:17	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 21:17	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 21:17	7440-43-9	
Chromium	0.00075J	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 21:17	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 21:17	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 21:17	7439-92-1	
Lithium	0.0033J	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 21:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 21:17	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 21:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 21:17	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:40	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 08:50	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-4I		Lab ID: 2628973009		Collected: 02/12/20 13:48		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	6.15	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 17:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 17:18	7440-38-2	
Barium	0.012	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 17:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 17:18	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 17:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 17:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 17:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 17:18	7439-92-1	
Lithium	0.011J	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 17:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 17:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 17:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 17:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:41	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 09:20	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-20S		Lab ID: 2628973010		Collected: 02/12/20 13:45		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method:									
Field pH	6.0	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 18:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 18:48	7440-38-2	
Barium	0.014	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 18:48	7440-39-3	
Beryllium	0.000078J	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 18:48	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 18:48	7440-43-9	
Chromium	0.00045J	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 18:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 18:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 18:48	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 18:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 18:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 18:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 18:48	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:44	7439-97-6	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 10:09	16984-48-8	M1

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-39		Lab ID: 2628973011		Collected: 02/12/20 12:20		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method:									
Field pH	5.97	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 18:54	7440-36-0	
Arsenic	0.00058J	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 18:54	7440-38-2	
Barium	0.011	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 18:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 18:54	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 18:54	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 18:54	7440-47-3	
Cobalt	0.00034J	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 18:54	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 18:54	7439-92-1	
Lithium	0.0041J	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 18:54	7439-93-2	
Molybdenum	0.0025J	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 18:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 18:54	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 10:58	7439-97-6	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 10:53	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWA-211		Lab ID: 2628973012		Collected: 02/12/20 14:45		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	7.13	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	0.0015J	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 18:59	7440-36-0	
Arsenic	0.0025J	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 18:59	7440-38-2	
Barium	0.011	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 18:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 18:59	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 18:59	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 18:59	7440-47-3	
Cobalt	0.0081	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 18:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 18:59	7439-92-1	
Lithium	0.0065J	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 18:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 18:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 18:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 18:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:12	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.10J	mg/L	0.30	0.050	1		02/20/20 11:08	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWC-24S		Lab ID: 2628973013		Collected: 02/13/20 14:53		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	5.69	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 19:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 19:05	7440-38-2	
Barium	0.016	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 19:05	7440-39-3	
Beryllium	0.00014J	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 19:05	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 19:05	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 19:05	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 19:05	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 19:05	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 19:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 19:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 19:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 19:05	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:15	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 11:23	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: DUP-2		Lab ID: 2628973014		Collected: 02/13/20 00:00		Received: 02/14/20 14:39		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	0.00027	1	02/22/20 17:25	02/24/20 19:11	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 19:11	7440-38-2		
Barium	0.092	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 19:11	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 19:11	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 19:11	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 19:11	7440-47-3		
Cobalt	0.0025J	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 19:11	7440-48-4		
Lead	0.000077J	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 19:11	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 19:11	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 19:11	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 19:11	7782-49-2		
Thallium	0.00010J	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 19:11	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:17	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.093J	mg/L	0.30	0.050	1		02/20/20 11:38	16984-48-8		

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: EB-1-2-14-20		Lab ID: 2628973015		Collected: 02/14/20 09:45		Received: 02/14/20 14:39		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	0.00027	1	02/25/20 20:05	02/26/20 18:25	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 18:25	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 18:25	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 18:25	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 18:25	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 18:25	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 18:25	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 18:25	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 18:25	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 18:25	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 18:25	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 18:25	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:19	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 11:53	16984-48-8		

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWC-41		Lab ID: 2628973016		Collected: 02/14/20 10:00		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	4.84	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 18:31	7440-36-0	
Arsenic	0.0014J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 18:31	7440-38-2	
Barium	0.024	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 18:31	7440-39-3	
Beryllium	0.0026J	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 18:31	7440-41-7	
Cadmium	0.00020J	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 18:31	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 18:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 18:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 18:31	7439-92-1	
Lithium	0.0029J	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 18:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 18:31	7439-98-7	
Selenium	0.059	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 18:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 18:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:22	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 12:07	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Sample: YGWC-33S		Lab ID: 2628973017		Collected: 02/14/20 11:40		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	3.76	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	0.0013J	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 18:54	7440-36-0	
Arsenic	0.0027J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 18:54	7440-38-2	
Barium	0.013	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 18:54	7440-39-3	
Beryllium	0.016	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 18:54	7440-41-7	
Cadmium	0.0021J	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 18:54	7440-43-9	
Chromium	0.00078J	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 18:54	7440-47-3	
Cobalt	0.023	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 18:54	7440-48-4	
Lead	0.0010J	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 18:54	7439-92-1	
Lithium	0.024J	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 18:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 18:54	7439-98-7	
Selenium	0.015	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 18:54	7782-49-2	
Thallium	0.00019J	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 18:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:24	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.23J	mg/L	0.30	0.050	1		02/20/20 12:22	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWC-36		Lab ID: 2628973018		Collected: 02/14/20 11:55		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	5.71	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	0.0027J	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 19:00	7440-36-0	
Arsenic	0.0026J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:00	7440-38-2	
Barium	0.026	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:00	7440-39-3	
Beryllium	0.00019J	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:00	7440-41-7	
Cadmium	0.00017J	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:00	7440-47-3	
Cobalt	0.00041J	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:00	7440-48-4	
Lead	0.00016J	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:00	7439-92-1	
Lithium	0.0024J	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:00	7439-98-7	
Selenium	0.0020J	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:00	7782-49-2	
Thallium	0.000057J	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:26	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 13:21	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Sample: YGWC-42		Lab ID: 2628973019		Collected: 02/14/20 10:30		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Field pH	5.80	Std. Units			1		02/17/20 08:42		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 19:05	7440-36-0	
Arsenic	0.0033J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:05	7440-38-2	
Barium	0.031	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:05	7440-41-7	
Cadmium	0.00025J	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:05	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:05	7440-47-3	
Cobalt	0.0019J	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:05	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:05	7439-92-1	
Lithium	0.038	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:05	7439-98-7	
Selenium	0.040	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:05	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:29	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.30	0.050	1		02/20/20 13:36	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: FB-2-2-14-20		Lab ID: 2628973020		Collected: 02/14/20 12:00		Received: 02/14/20 14:39		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	0.00027	1	02/25/20 20:05	02/26/20 19:25	7440-36-0		
Arsenic	0.0023J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:25	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:25	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:25	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:25	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:25	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:25	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:25	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:25	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:25	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:25	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:25	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:36	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 13:08	16984-48-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWC-38		Lab ID: 2628973021		Collected: 02/14/20 13:25		Received: 02/17/20 16:37		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Field pH	4.84	Std. Units			1		02/27/20 08:48		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	0.00031J	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 19:31	7440-36-0	
Arsenic	0.0021J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:31	7440-38-2	
Barium	0.019	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:31	7440-39-3	
Beryllium	0.0042	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:31	7440-41-7	
Cadmium	0.0021J	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:31	7440-43-9	
Chromium	0.0023J	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:31	7439-92-1	
Lithium	0.0076J	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:31	7439-98-7	
Selenium	0.11	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:31	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:45	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.30	0.050	1		02/26/20 15:55	16984-48-8	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWC-43		Lab ID: 2628973022		Collected: 02/17/20 12:00		Received: 02/17/20 16:37		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	5.93	Std. Units			1		02/27/20 08:48		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 19:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:36	7440-38-2	
Barium	0.037	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:36	7440-39-3	
Beryllium	0.00034J	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:36	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:36	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:36	7440-47-3	
Cobalt	0.00088J	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:36	7439-92-1	
Lithium	0.015J	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:48	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.15J	mg/L	0.30	0.050	1		02/26/20 16:39	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: EB-2-2-17-20		Lab ID: 2628973023		Collected: 02/17/20 11:50		Received: 02/17/20 16:37		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	0.00027	1	02/25/20 20:05	02/26/20 19:42	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:42	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:42	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:42	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:42	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:42	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:42	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:42	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:42	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:42	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:42	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:42	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:50	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/26/20 16:53	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Sample: YGWC-23S		Lab ID: 2628973024		Collected: 02/17/20 13:20		Received: 02/17/20 16:37		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Field pH	5.84	Std. Units			1		02/27/20 08:48		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 19:48	7440-36-0	
Arsenic	0.0019J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:48	7440-38-2	
Barium	0.024	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:48	7440-39-3	
Beryllium	0.000081J	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:48	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:48	7440-43-9	
Chromium	0.00087J	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:48	7439-92-1	
Lithium	0.0021J	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:48	7439-98-7	
Selenium	0.020	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:48	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:52	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.30	0.050	1		02/26/20 17:08	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Sample: YGWC-49		Lab ID: 2628973025		Collected: 02/17/20 14:30		Received: 02/17/20 16:37		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Field pH	5.82	Std. Units			1		02/27/20 08:49		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	02/25/20 20:05	02/26/20 19:53	7440-36-0	
Arsenic	0.0028J	mg/L	0.0050	0.00035	1	02/25/20 20:05	02/26/20 19:53	7440-38-2	
Barium	0.071	mg/L	0.010	0.00049	1	02/25/20 20:05	02/26/20 19:53	7440-39-3	
Beryllium	0.00011J	mg/L	0.0030	0.000074	1	02/25/20 20:05	02/26/20 19:53	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/25/20 20:05	02/26/20 19:53	7440-43-9	
Chromium	0.0020J	mg/L	0.010	0.00039	1	02/25/20 20:05	02/26/20 19:53	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/25/20 20:05	02/26/20 19:53	7440-48-4	
Lead	0.000071J	mg/L	0.0050	0.000046	1	02/25/20 20:05	02/26/20 19:53	7439-92-1	
Lithium	0.0032J	mg/L	0.030	0.00078	1	02/25/20 20:05	02/26/20 19:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/25/20 20:05	02/26/20 19:53	7439-98-7	
Selenium	0.0068J	mg/L	0.010	0.0013	1	02/25/20 20:05	02/26/20 19:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/25/20 20:05	02/26/20 19:53	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 14:20	02/25/20 11:55	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.30	0.050	1		02/26/20 17:22	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

QC Batch: 43498 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008

METHOD BLANK: 199117 Matrix: Water
 Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00016J	0.00050	0.00014	02/19/20 16:43	

LABORATORY CONTROL SAMPLE: 199118

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0029	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 199119 199120

Parameter	Units	2628972001 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	0.0025	0.0025	0.0024	0.0025	95	98	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

QC Batch: 43742 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 2628973009, 2628973010

METHOD BLANK: 200407 Matrix: Water

Associated Lab Samples: 2628973009, 2628973010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	02/25/20 09:37	

LABORATORY CONTROL SAMPLE: 200408

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 200409 200410

Parameter	Units	200409		200410		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2628972006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0020	97	82	75-125	17	20

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

QC Batch: 43762 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016, 2628973017, 2628973018, 2628973019, 2628973020, 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

METHOD BLANK: 200481 Matrix: Water
Associated Lab Samples: 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016, 2628973017, 2628973018, 2628973019, 2628973020, 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	02/25/20 10:53	

LABORATORY CONTROL SAMPLE: 200482

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 200483 200484

Parameter	Units	2628973011 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	0.0025	0.0025	0.0020	0.0020	81	82	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

QC Batch: 43544 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008

METHOD BLANK: 199284 Matrix: Water
Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	02/20/20 19:28	
Arsenic	mg/L	0.00079J	0.0050	0.00035	02/20/20 19:28	
Barium	mg/L	ND	0.010	0.00049	02/20/20 19:28	
Beryllium	mg/L	ND	0.0030	0.000074	02/20/20 19:28	
Cadmium	mg/L	ND	0.0025	0.00011	02/20/20 19:28	
Chromium	mg/L	ND	0.010	0.00039	02/20/20 19:28	
Cobalt	mg/L	ND	0.0050	0.00030	02/20/20 19:28	
Lead	mg/L	ND	0.0050	0.000046	02/20/20 19:28	
Lithium	mg/L	ND	0.030	0.00078	02/20/20 19:28	
Molybdenum	mg/L	ND	0.010	0.00095	02/20/20 19:28	
Selenium	mg/L	ND	0.010	0.0013	02/20/20 19:28	
Thallium	mg/L	ND	0.0010	0.000052	02/20/20 19:28	

LABORATORY CONTROL SAMPLE: 199285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.11	108	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 199286 199287

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2628972001 Result	Spike Conc.	Spike Conc.	MSD Result							
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20	
Arsenic	mg/L	0.00050J	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Barium	mg/L	0.0091J	0.1	0.1	0.11	0.11	102	103	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.095	0.090	95	90	75-125	5	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Parameter	Units	199286		199287		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2628972001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Chromium	mg/L	ND	0.1	0.1	0.11	0.11	105	106	75-125	0	20	
Cobalt	mg/L	0.0016J	0.1	0.1	0.11	0.10	104	103	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20	
Lithium	mg/L	0.0023J	0.1	0.1	0.096	0.095	94	92	75-125	1	20	
Molybdenum	mg/L	0.0062J	0.1	0.1	0.11	0.11	107	108	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	2	20	
Thallium	mg/L	0.000055J	0.1	0.1	0.10	0.10	102	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

QC Batch: 43713 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3005A Analysis Description: 6020B MET
 Associated Lab Samples: 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014

METHOD BLANK: 200292 Matrix: Water
 Associated Lab Samples: 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	02/24/20 15:12	
Arsenic	mg/L	ND	0.0050	0.00035	02/24/20 15:12	
Barium	mg/L	ND	0.010	0.00049	02/24/20 15:12	
Beryllium	mg/L	ND	0.0030	0.000074	02/24/20 15:12	
Cadmium	mg/L	ND	0.0025	0.00011	02/24/20 15:12	
Chromium	mg/L	ND	0.010	0.00039	02/24/20 15:12	
Cobalt	mg/L	ND	0.0050	0.00030	02/24/20 15:12	
Lead	mg/L	ND	0.0050	0.000046	02/24/20 15:12	
Lithium	mg/L	ND	0.030	0.00078	02/24/20 15:12	
Molybdenum	mg/L	ND	0.010	0.00095	02/24/20 15:12	
Selenium	mg/L	ND	0.010	0.0013	02/24/20 15:12	
Thallium	mg/L	ND	0.0010	0.000052	02/24/20 15:12	

LABORATORY CONTROL SAMPLE: 200293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 200294 200295

Parameter	Units	200294		200295		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.11	0.11	106	105	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.099	0.097	99	97	75-125	2	20	
Barium	mg/L	0.0070J	0.1	0.11	0.11	103	100	75-125	3	20	
Beryllium	mg/L	0.00019J	0.1	0.11	0.11	105	106	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.10	0.099	101	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Parameter	Units	200294		200295		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2628972007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	2	20	
Cobalt	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	0	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	106	106	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.097	100	95	75-125	5	20	
Thallium	mg/L	0.000089J	0.1	0.1	0.097	0.095	97	95	75-125	2	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

QC Batch: 43868 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2628973015, 2628973016, 2628973017, 2628973018, 2628973019, 2628973020, 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

METHOD BLANK: 200856 Matrix: Water
Associated Lab Samples: 2628973015, 2628973016, 2628973017, 2628973018, 2628973019, 2628973020, 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	02/26/20 18:14	
Arsenic	mg/L	ND	0.0050	0.00035	02/26/20 18:14	
Barium	mg/L	ND	0.010	0.00049	02/26/20 18:14	
Beryllium	mg/L	ND	0.0030	0.000074	02/26/20 18:14	
Cadmium	mg/L	ND	0.0025	0.00011	02/26/20 18:14	
Chromium	mg/L	ND	0.010	0.00039	02/26/20 18:14	
Cobalt	mg/L	ND	0.0050	0.00030	02/26/20 18:14	
Lead	mg/L	ND	0.0050	0.000046	02/26/20 18:14	
Lithium	mg/L	ND	0.030	0.00078	02/26/20 18:14	
Molybdenum	mg/L	ND	0.010	0.00095	02/26/20 18:14	
Selenium	mg/L	ND	0.010	0.0013	02/26/20 18:14	
Thallium	mg/L	ND	0.0010	0.000052	02/26/20 18:14	

LABORATORY CONTROL SAMPLE: 200857

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.095	95	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 200858 200859

Parameter	Units	2628973016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0014J	0.1	0.1	0.11	0.099	105	98	75-125	7	20	
Barium	mg/L	0.024	0.1	0.1	0.14	0.14	118	112	75-125	4	20	
Beryllium	mg/L	0.0026J	0.1	0.1	0.094	0.091	91	88	75-125	4	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Parameter	Units	200858		200859		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Cadmium	mg/L	0.00020J	0.1	0.1	0.11	0.099	105	99	75-125	6	20		
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	106	100	75-125	5	20		
Cobalt	mg/L	ND	0.1	0.1	0.11	0.099	106	99	75-125	6	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.095	102	95	75-125	7	20		
Lithium	mg/L	0.0029J	0.1	0.1	0.090	0.088	87	85	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	113	102	75-125	10	20		
Selenium	mg/L	0.059	0.1	0.1	0.16	0.15	103	93	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.097	103	97	75-125	6	20		

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

QC Batch: 525418 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005

METHOD BLANK: 2808346 Matrix: Water
Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/18/20 08:29	

LABORATORY CONTROL SAMPLE: 2808347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2808348 2808349

Parameter	Units	92464515069 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	0.058J	2.5	2.5	2.5	2.4	97	94	90-110	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2808350 2808351

Parameter	Units	2628972001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	ND	2.5	2.5	2.3	2.3	93	92	90-110	0	10	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

QC Batch: 525820 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2628973006, 2628973007, 2628973008, 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016, 2628973017, 2628973018, 2628973019

METHOD BLANK: 2810550 Matrix: Water
Associated Lab Samples: 2628973006, 2628973007, 2628973008, 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016, 2628973017, 2628973018, 2628973019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/20/20 05:38	

LABORATORY CONTROL SAMPLE: 2810551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2810552 2810553

Parameter	Units	92464515104 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Fluoride	mg/L	0.26	2.5	2.5	2.4	2.4	85	86	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2810554 2810555

Parameter	Units	2628973010 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Fluoride	mg/L	ND	2.5	2.5	2.3	2.2	90	89	90-110	1	10	M1	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

QC Batch: 526047 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2628973020

METHOD BLANK: 2811595 Matrix: Water
Associated Lab Samples: 2628973020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/21/20 12:40	

LABORATORY CONTROL SAMPLE: 2811596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.7	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2811597 2811598

Parameter	Units	2628973020 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	ND	2.5	2.5	2.8	2.6	112	104	90-110	7	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2811599 2811600

Parameter	Units	2628972015 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	108	107	90-110	1	10	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

QC Batch: 527043 Analysis Method: EPA 300.0 Rev 2.1 1993

QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

METHOD BLANK: 2816192 Matrix: Water

Associated Lab Samples: 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/26/20 14:43	

LABORATORY CONTROL SAMPLE: 2816193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2816194 2816195

Parameter	Units	2816194		2816195		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Fluoride	mg/L	ND	2.5	2.5	3.0	2.9	118	115	90-110	3	10 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2816196 2816197

Parameter	Units	2816196		2816197		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Fluoride	mg/L	ND	2.5	2.5	2.8	2.7	111	109	90-110	1	10 M1

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QUALIFIERS

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

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.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-GA Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT YATES AMA AND R6 FEB
Pace Project No.: 2628973

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2628973001	YGWA-18S				
2628973002	YGWA-17S				
2628973003	YGWA-18I				
2628973004	YGWA-5D				
2628973005	YGWA-40				
2628973006	YGWA-5I				
2628973009	YGWA-4I				
2628973010	YGWA-20S				
2628973011	YGWA-39				
2628973012	YGWA-21I				
2628973013	YGWC-24S				
2628973016	YGWC-41				
2628973017	YGWC-33S				
2628973018	YGWC-36				
2628973019	YGWC-42				
2628973021	YGWC-38		43595		
2628973022	YGWC-43		43595		
2628973024	YGWC-23S		43595		
2628973025	YGWC-49		43595		
2628973001	YGWA-18S	EPA 3005A	43544	EPA 6020B	43556
2628973002	YGWA-17S	EPA 3005A	43544	EPA 6020B	43556
2628973003	YGWA-18I	EPA 3005A	43544	EPA 6020B	43556
2628973004	YGWA-5D	EPA 3005A	43544	EPA 6020B	43556
2628973005	YGWA-40	EPA 3005A	43544	EPA 6020B	43556
2628973006	YGWA-5I	EPA 3005A	43544	EPA 6020B	43556
2628973007	FB-1-2-12-20	EPA 3005A	43544	EPA 6020B	43556
2628973008	DUP-1	EPA 3005A	43544	EPA 6020B	43556
2628973009	YGWA-4I	EPA 3005A	43713	EPA 6020B	43729
2628973010	YGWA-20S	EPA 3005A	43713	EPA 6020B	43729
2628973011	YGWA-39	EPA 3005A	43713	EPA 6020B	43729
2628973012	YGWA-21I	EPA 3005A	43713	EPA 6020B	43729
2628973013	YGWC-24S	EPA 3005A	43713	EPA 6020B	43729
2628973014	DUP-2	EPA 3005A	43713	EPA 6020B	43729
2628973015	EB-1-2-14-20	EPA 3005A	43868	EPA 6020B	43877
2628973016	YGWC-41	EPA 3005A	43868	EPA 6020B	43877
2628973017	YGWC-33S	EPA 3005A	43868	EPA 6020B	43877
2628973018	YGWC-36	EPA 3005A	43868	EPA 6020B	43877
2628973019	YGWC-42	EPA 3005A	43868	EPA 6020B	43877
2628973020	FB-2-2-14-20	EPA 3005A	43868	EPA 6020B	43877
2628973021	YGWC-38	EPA 3005A	43868	EPA 6020B	43877
2628973022	YGWC-43	EPA 3005A	43868	EPA 6020B	43877
2628973023	EB-2-2-17-20	EPA 3005A	43868	EPA 6020B	43877
2628973024	YGWC-23S	EPA 3005A	43868	EPA 6020B	43877
2628973025	YGWC-49	EPA 3005A	43868	EPA 6020B	43877
2628973001	YGWA-18S	EPA 7470A	43498	EPA 7470A	43503
2628973002	YGWA-17S	EPA 7470A	43498	EPA 7470A	43503

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2628973003	YGWA-18I	EPA 7470A	43498	EPA 7470A	43503
2628973004	YGWA-5D	EPA 7470A	43498	EPA 7470A	43503
2628973005	YGWA-40	EPA 7470A	43498	EPA 7470A	43503
2628973006	YGWA-5I	EPA 7470A	43498	EPA 7470A	43503
2628973007	FB-1-2-12-20	EPA 7470A	43498	EPA 7470A	43503
2628973008	DUP-1	EPA 7470A	43498	EPA 7470A	43503
2628973009	YGWA-4I	EPA 7470A	43742	EPA 7470A	43802
2628973010	YGWA-20S	EPA 7470A	43742	EPA 7470A	43802
2628973011	YGWA-39	EPA 7470A	43762	EPA 7470A	43803
2628973012	YGWA-21I	EPA 7470A	43762	EPA 7470A	43803
2628973013	YGWC-24S	EPA 7470A	43762	EPA 7470A	43803
2628973014	DUP-2	EPA 7470A	43762	EPA 7470A	43803
2628973015	EB-1-2-14-20	EPA 7470A	43762	EPA 7470A	43803
2628973016	YGWC-41	EPA 7470A	43762	EPA 7470A	43803
2628973017	YGWC-33S	EPA 7470A	43762	EPA 7470A	43803
2628973018	YGWC-36	EPA 7470A	43762	EPA 7470A	43803
2628973019	YGWC-42	EPA 7470A	43762	EPA 7470A	43803
2628973020	FB-2-2-14-20	EPA 7470A	43762	EPA 7470A	43803
2628973021	YGWC-38	EPA 7470A	43762	EPA 7470A	43803
2628973022	YGWC-43	EPA 7470A	43762	EPA 7470A	43803
2628973023	EB-2-2-17-20	EPA 7470A	43762	EPA 7470A	43803
2628973024	YGWC-23S	EPA 7470A	43762	EPA 7470A	43803
2628973025	YGWC-49	EPA 7470A	43762	EPA 7470A	43803
2628973001	YGWA-18S	EPA 300.0 Rev 2.1 1993	525418		
2628973002	YGWA-17S	EPA 300.0 Rev 2.1 1993	525418		
2628973003	YGWA-18I	EPA 300.0 Rev 2.1 1993	525418		
2628973004	YGWA-5D	EPA 300.0 Rev 2.1 1993	525418		
2628973005	YGWA-40	EPA 300.0 Rev 2.1 1993	525418		
2628973006	YGWA-5I	EPA 300.0 Rev 2.1 1993	525820		
2628973007	FB-1-2-12-20	EPA 300.0 Rev 2.1 1993	525820		
2628973008	DUP-1	EPA 300.0 Rev 2.1 1993	525820		
2628973009	YGWA-4I	EPA 300.0 Rev 2.1 1993	525820		
2628973010	YGWA-20S	EPA 300.0 Rev 2.1 1993	525820		
2628973011	YGWA-39	EPA 300.0 Rev 2.1 1993	525820		
2628973012	YGWA-21I	EPA 300.0 Rev 2.1 1993	525820		
2628973013	YGWC-24S	EPA 300.0 Rev 2.1 1993	525820		
2628973014	DUP-2	EPA 300.0 Rev 2.1 1993	525820		
2628973015	EB-1-2-14-20	EPA 300.0 Rev 2.1 1993	525820		
2628973016	YGWC-41	EPA 300.0 Rev 2.1 1993	525820		
2628973017	YGWC-33S	EPA 300.0 Rev 2.1 1993	525820		
2628973018	YGWC-36	EPA 300.0 Rev 2.1 1993	525820		
2628973019	YGWC-42	EPA 300.0 Rev 2.1 1993	525820		
2628973020	FB-2-2-14-20	EPA 300.0 Rev 2.1 1993	526047		
2628973021	YGWC-38	EPA 300.0 Rev 2.1 1993	527043		
2628973022	YGWC-43	EPA 300.0 Rev 2.1 1993	527043		
2628973023	EB-2-2-17-20	EPA 300.0 Rev 2.1 1993	527043		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT YATES AMA AND R6 FEB

Pace Project No.: 2628973

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2628973024	YGWC-23S	EPA 300.0 Rev 2.1 1993	527043		
2628973025	YGWC-49	EPA 300.0 Rev 2.1 1993	527043		

REPORT OF LABORATORY ANALYSIS

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

Client Information: **GA Power**
 Report To: **SCS Contacts**
 Copy To: **ACC Contacts**
 Company Name: **Southern Co.**
 Address: **Atlanta, GA**
 Reference: **Kevin Herring**
 Project Name: **Plant Yates #2 - Feb Event - RG AMA**
 Project Number: **2016-1**
 Requested Analysis Filtered (Y/N): **Y**
 Regulatory Agency: **NPDES** **GROUND WATER** **DRINKING WATER** **OTHER** **COR**
 Site Location: **GA**

Section B
 Required Project Information:
 Report To: **SCS Contacts**
 Copy To: **ACC Contacts**
 Company Name: **Southern Co.**
 Address: **Atlanta, GA**
 Reference: **Kevin Herring**
 Project Name: **Plant Yates #2 - Feb Event - RG AMA**
 Project Number: **2016-1**
 Requested Analysis Filtered (Y/N): **Y**
 Regulatory Agency: **NPDES** **GROUND WATER** **DRINKING WATER** **OTHER** **COR**
 Site Location: **GA**

ITEM #	Valid Matrix Codes Required Client Information	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				DATE	TIME			DATE	TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃				
1	Y6WA-4I	W6	G	2-11-20	1348	4	1	3							X		PH = 6.15	
2	Y6WA-20S	W6	G	2-11-20	1345	4	1	3							X		PH = 6.00	
3	Y6WA-39	W6	G	2-11-20	1220	4	1	3							X		PH = 5.97	
4	Y6WA-21E	W6	G	2-12-20	1445	4	1	3							X		PH = 7.13, extra read	
5	Y6WC-24S	W6	G	2-10-20	1453	4	1	3							X		PH = 5.09, date: 2-13-20	
6	Duo-2	W6	G	2-13-20	—	4	1	3							X			
7	FB-2-14-20	W6	G	2-14-20	0945	4	1	3							X		PH = 4.84	
8	Y6WC-41	W6	G	2-14-20	1000	4	1	3							X		PH = 3.76	
9	Y6WC-33S	W6	G	2-14-20	1140	4	1	3							X		PH = 5.71	
10	Y6WC-30	W6	G	2-14-20	1155	4	1	3							X		PH = 5.80	
11	Y6WC-42	W6	G	2-14-20	1030	4	1	3							X			
12	FB-2-2-14-20	W6	G	2-14-20	1200	4	1	3							X			

Section C
 Invoice Information:
 Attention: **Southern Co.**
 Company Name: **Southern Co.**
 Address: **Atlanta, GA**
 Reference: **Kevin Herring**
 Project Name: **Plant Yates #2 - Feb Event - RG AMA**
 Project Number: **2016-1**
 Requested Analysis Filtered (Y/N): **Y**
 Regulatory Agency: **NPDES** **GROUND WATER** **DRINKING WATER** **OTHER** **COR**
 Site Location: **GA**

Section D
 Valid Matrix Codes
 DRINKING WATER DW
 WASTE WATER WW
 PRODUCT P
 SOIL/SLURRY S
 AIR A
 OTHER OT
 TISSUE TS

Additional Comments:
 Requisitioned by: **[Signature]** Date: **2/14/20**
 Accepted by: **[Signature]** Date: **2/14/20**

Sampler Name and Signature: **[Signature]**
 Print Name of Sampler: **Hyatt Field**
 Signature of Sampler: **[Signature]**
 Date Signed: **2-13-20**

Temp in °C: **8.7**
 Received on Ice (Y/N): **Y**
 Custody Sealed Cooler (Y/N): **N**
 Samples Intact (Y/N): **Y**

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: GA Power Address: Atlanta, GA

Section B Required Project Information: Report To: SCS Contacts Copy To: ACC Contacts

Section C Invoice Information: Attention: Southern Co. Company Name: Address: Pace Guide Reference: Kevin Henning Pace Project Manager: Pace Number #: 2916-1

Page: 1 of

Section D Required Client Information: Email To: SCS Contacts Phone: Fax: Requested Due Date/TIME: 10 Day

Section B Required Project Information: Project Name: Plant Yates AWA and R6 - Feb Event Project Number:

Section C Invoice Information: Address: Pace Guide Reference: Kevin Henning Pace Project Manager: Pace Number #: 2916-1

REGULATORY AGENCY
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER COR

Site Location STATE: GA

ITEM #	Valid Matrix Codes MATERIAL CODE DOMESTIC WATER DW WATER WWT WASTE WATER WW PRODUCT P OIL OIL WIRE WWP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
				DATE	TIME							
1	YGWA-18S	WG	G	2-11-20	1239	4	1	3	X	X	X	Pace Project No./Lab I.D. 2626473 PH: 5.30 PH: 5.58 PH: 6.02 PH: 7.52 PH: 5.30 PH: 5.83
2	YGWA-17S	WG	G	2-11-20	1121	4	1	3	X	X	X	
3	YGWA-18I	WG	G	2-11-20	1356	4	1	3	X	X	X	
4	YGWA-5D	WG	G	2-17-20	1038	4	1	3	X	X	X	
5	YGWA-4D	WG	G	2-17-20	1042	4	1	3	X	X	X	
6	YGWA-5I	WG	G	2-17-20	1055	4	1	3	X	X	X	
7												
8												
9												
10												
11	EG-20 FB-1-2-12-20	WG	G	2-12-20	1020	4	1	3	X	X	X	
12	DIP-1	WG	G	2-11-20	1020	4	1	3	X	X	X	

ADDITIONAL COMMENTS
 Please note dry wells and note when the last sample for the event has been taken.

RELINQUISHED BY / AFFILIATION
 [Signature] DATE: 2-12-20 TIME: 1515

ACCEPTED BY / AFFILIATION
 [Signature] DATE: 2-11-20 TIME: 1515

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: D. ENOCH, H. AULD
 SIGNATURE of SAMPLER: [Signature] DATE SIGNED (MM/DD/YYYY): 2-11-20

Temp in °C
 Received on Ice (Y/N)
 Custody Sealed Cooler (Y/N)
 Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month (excluding interest) not paid within 30 days.

F-ALL-Q-020REV.07, 15-Feb-2007

Sample Condition Upon Receipt



Client Name: GA 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 Nonp Other _____

Thermometer Used THR283 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 3.3 Biological Tissue Is Frozen: Yes No
 Temp should be above freezing to 6°C

Date and initials of person examining contents: KW 2/17/20

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 type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input 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 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 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 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 type="checkbox"/> No	Initial when completed <u>KW 2/17/20</u> 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)



Document Name:
Bottle Identification Form (BIF)

Document No.:
F-CAR-CS-043-Rev.00

Document issued: March 14, 2019
Page 1 of 1

Issuing Authority:
Pace Carolinas Quality Office

Project #

* Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

** Bottom half of box is to list number of bottle

Matrix	Item#	Item Description	1	2	3	4	5	6	7	8	9	10	11	12
	BP4U-125 mL Pipette	Unpreserved (N/A) (C-)												
	BP3U-250 mL Plastic	Unpreserved (N/A)												
	BP2U-500 mL Plastic	Unpreserved (N/A)												
	BP1U-1 liter Plastic	Unpreserved (N/A)												
	BP4S-125 mL Plastic	H2SO4 (pH < 2) (C-)												
	BP3N-250 mL plastic	HNO3 (pH < 2)												
	BP4Z-125 mL Plastic	Zn Acetate & NaOH (>9)												
	BP4C-125 mL Plastic	NaOH (pH > 12) (C-)												
	WGFW-Wide-mouthed	Glass jar Unpreserved												
	AG1U-1 liter Amber	Unpreserved (N/A) (C-)												
	AG1H-1 liter Amber	HCl (pH < 2)												
	AG3U-250 mL Amber	Unpreserved (N/A) (C-)												
	AG1S-1 liter Amber	H2SO4 (pH < 2)												
	AG3S-250 mL Amber	H2SO4 (pH < 2)												
	AG3A(DG3A)-250 mL	Amber NH4Cl (N/A)(C-)												
	DG9H-40 mL VOA	HCl (N/A)												
	VG9T-40 mL VOA	Na2S2O3 (N/A)												
	VG9U-40 mL VOA	Urp (N/A)												
	DG9P-40 mL VOA	H3PO4 (N/A)												
	VOAK (6 vials per kit)	-5035 kit (N/A)												
	V/GK (3 vials per kit)	VPH/Gas kit (N/A)												
	SP5T-125 mL Sterile	Plastic (N/A - lab)												
	SP2T-250 mL Sterile	Plastic (N/A - lab)												
	B PIN													
	BP3A-250 mL Plastic	(NH2)2SO4 (9-3-9-7)												
	AG9U-100 mL Amber	Unpreserved vials (N/A)												
	VS9U-20 mL	Scrubbing vials (N/A)												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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. Out of hold, incorrect preservative, out of temp, incorrect containers.



Document Name:
Bottle Identification Form (BIF)

Document No.:

NCAS-CR-043 Rev. 00

Document Issued: March 14, 2019

Page 1 of 1

Issuing Authority:

Face Carolinas Quality Office

* Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

** Bottom half of box is to list number of bottle

Project #

Matrix	Item #	BP40-125 mL Plastic Unpreserved (N/A) (C-)	BP30-250 mL Plastic Unpreserved (N/A)	BP20-500 mL Plastic Unpreserved (N/A)	BP10-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFL-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG3S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP2T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG8U-100 mL Amber Unpreserved vials (N/A)	VEG9U-20 mL Scintillation vials (N/A)	
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

BPIN

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot

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 Of Out of hold, incorrect preservative, out of temp, incorrect containers.



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F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019
Page 1 of 1
Issuing Authority:
Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

1/1

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/BO15 (water) DOC, LLHg

** Bottom half of box is to list number of bottle

Matrix	Item#	Matrix	Item#
	BP4U-125 mL Plastic Unpreserved (N/A) (C-)		
	BP3U-250 mL Plastic Unpreserved (N/A)		
	BP2U-500 mL Plastic Unpreserved (N/A)		
	BP1U-1 liter Plastic Unpreserved (N/A)		
	BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)		
	BP3N-250 mL plastic HNO3 (pH < 2)		
	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)		
	BP4C-125 mL Plastic NaOH (pH > 12) (C-)		
	WGFU-Wide-mouthed Glass Jar Unpreserved		
	AG1U-1 liter Amber Unpreserved (N/A) (C-)		
	AG3H-1 liter Amber HCl (pH < 2)		
	AG3U-250 mL Amber Unpreserved (N/A) (C-)		
	AG1S-1 liter Amber H2SO4 (pH < 2)		
	AG3S-250 mL Amber H2SO4 (pH < 2)		
	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)		
	DG9H-40 mL VOA HCl (N/A)		
	VG9T-40 mL VOA Na2SO3 (N/A)		
	VG9U-40 mL VOA Unp (N/A)		
	DG9P-40 mL VOA H3PO4 (N/A)		
	VOAK (6 vials per kit)-5035 kit (N/A)		
	V/GK (3 vials per kit)-VPH/Gas kit (N/A)		
	SP5T-125 mL Sterile Plastic (N/A - lab)		
	SP2T-250 mL Sterile Plastic (N/A - lab)		
	BP3A-250 mL Plastic (N/A) (11/12/2504 (9.3-9.7)		
	AG6U-100 mL Amber Unpreserved vials (N/A)		
	VS6U-20 mL Scintillation vials (N/A)		

BPIN

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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 Out of hold, incorrect preservative, out of temp, incorrect containers.

March 15, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2628973
Pace Project No.: 30350267

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 14, 2020 and February 19, 2020. 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,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

Project: 2628973
Pace Project No.: 30350267

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 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

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SAMPLE SUMMARY

Project: 2628973

Pace Project No.: 30350267

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2628973001	YGWA-18S	Water	02/11/20 12:39	02/14/20 10:15
2628973002	YGWA-17S	Water	02/11/20 11:21	02/14/20 10:15
2628973003	YGWA-18I	Water	02/11/20 13:56	02/14/20 10:15
2628973004	YGWA-5D	Water	02/12/20 10:38	02/14/20 10:15
2628973005	YGWA-40	Water	02/12/20 10:42	02/14/20 10:15
2628973006	YGWA-5I	Water	02/12/20 11:55	02/14/20 10:15
2628973007	FB-1-2-12-20	Water	02/12/20 10:20	02/14/20 10:15
2628973008	DUP-1	Water	02/12/20 00:00	02/14/20 10:15
2628973009	YGWA-4I	Water	02/12/20 13:48	02/18/20 09:10
2628973010	YGWA-20S	Water	02/12/20 13:45	02/18/20 09:10
2628973011	YGWA-39	Water	02/12/20 12:20	02/18/20 09:10
2628973012	YGWA-21I	Water	02/12/20 14:45	02/18/20 09:10
2628973013	YGWC-24S	Water	02/13/20 14:53	02/18/20 09:10
2628973014	DUP-2	Water	02/13/20 00:00	02/18/20 09:10
2628973015	EB-1-2-14-20	Water	02/14/20 09:45	02/18/20 09:10
2628973016	YGWC-41	Water	02/14/20 10:00	02/18/20 09:10
2628973017	YGWC-33S	Water	02/14/20 11:40	02/18/20 09:10
2628973018	YGWC-36	Water	02/14/20 11:55	02/18/20 09:10
2628973019	YGWC-42	Water	02/14/20 10:30	02/18/20 09:10
2628973020	FB-2-2-14-20	Water	02/14/20 12:00	02/18/20 09:10
2628973021	YGWC-38	Water	02/14/20 13:25	02/19/20 09:20
2628973022	YGWC-43	Water	02/17/20 12:00	02/19/20 09:20
2628973023	EB-2-2-17-20	Water	02/17/20 11:50	02/19/20 09:20
2628973024	YGWC-23S	Water	02/17/20 13:20	02/19/20 09:20
2628973025	YGWC-49	Water	02/17/20 14:30	02/19/20 09:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2628973
Pace Project No.: 30350267

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628973001	YGWA-18S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973002	YGWA-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973003	YGWA-18I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973004	YGWA-5D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973005	YGWA-40	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973006	YGWA-5I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973007	FB-1-2-12-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973008	DUP-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973009	YGWA-4I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973010	YGWA-20S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973011	YGWA-39	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973012	YGWA-21I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628973013	YGWC-24S	EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2628973
Pace Project No.: 30350267

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628973014	DUP-2	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973015	EB-1-2-14-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973016	YGWC-41	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973017	YGWC-33S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973018	YGWC-36	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973019	YGWC-42	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973020	FB-2-2-14-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973021	YGWC-38	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973022	YGWC-43	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973023	EB-2-2-17-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973024	YGWC-23S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628973025	YGWC-49	EPA 9320	VAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2628973
Pace Project No.: 30350267

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

Sample: YGWA-18S		Lab ID: 2628973001	Collected: 02/11/20 12:39	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.247 ± 0.207 (0.389) C:88% T:NA	pCi/L	03/02/20 19:27	13982-63-3	
Radium-228	EPA 9320	0.350 ± 0.301 (0.599) C:81% T:95%	pCi/L	03/11/20 16:09	15262-20-1	
Total Radium	Total Radium Calculation	0.597 ± 0.508 (0.988)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: YGWA-17S		Lab ID: 2628973002	Collected: 02/11/20 11:21	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.364 ± 0.251 (0.343) C:89% T:NA	pCi/L	03/03/20 08:24	13982-63-3	
Radium-228	EPA 9320	0.0973 ± 0.272 (0.612) C:81% T:96%	pCi/L	03/11/20 16:09	15262-20-1	
Total Radium	Total Radium Calculation	0.461 ± 0.523 (0.955)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: YGWA-18I		Lab ID: 2628973003	Collected: 02/11/20 13:56	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.22 ± 0.478 (0.487) C:83% T:NA	pCi/L	03/03/20 08:16	13982-63-3	
Radium-228	EPA 9320	0.256 ± 0.356 (0.763) C:79% T:87%	pCi/L	03/11/20 16:09	15262-20-1	
Total Radium	Total Radium Calculation	1.48 ± 0.834 (1.25)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: YGWA-5D		Lab ID: 2628973004	Collected: 02/12/20 10:38	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	3.06 ± 0.764 (0.346) C:92% T:NA	pCi/L	03/03/20 08:23	13982-63-3	
Radium-228	EPA 9320	0.956 ± 0.417 (0.677) C:80% T:96%	pCi/L	03/11/20 16:09	15262-20-1	
Total Radium	Total Radium Calculation	4.02 ± 1.18 (1.02)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: YGWA-40		Lab ID: 2628973005	Collected: 02/12/20 10:42	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.692 ± 0.347 (0.419) C:88% T:NA	pCi/L	03/03/20 08:18	13982-63-3	
Radium-228	EPA 9320	1.14 ± 0.439 (0.650) C:81% T:91%	pCi/L	03/11/20 16:09	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

Sample: YGWA-40		Lab ID: 2628973005	Collected: 02/12/20 10:42	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	1.83 ± 0.786 (1.07)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: YGWA-5I		Lab ID: 2628973006	Collected: 02/12/20 11:55	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.907 ± 0.396 (0.458) C:89% T:NA	pCi/L	03/03/20 08:19	13982-63-3	
Radium-228	EPA 9320	0.00580 ± 0.284 (0.664) C:82% T:91%	pCi/L	03/11/20 16:09	15262-20-1	
Total Radium	Total Radium Calculation	0.913 ± 0.680 (1.12)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: FB-1-2-12-20		Lab ID: 2628973007	Collected: 02/12/20 10:20	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.198 ± 0.221 (0.441) C:91% T:NA	pCi/L	03/03/20 08:23	13982-63-3	
Radium-228	EPA 9320	0.596 ± 0.374 (0.696) C:82% T:88%	pCi/L	03/11/20 16:09	15262-20-1	
Total Radium	Total Radium Calculation	0.794 ± 0.595 (1.14)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: DUP-1		Lab ID: 2628973008	Collected: 02/12/20 00:00	Received: 02/14/20 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.621 ± 0.355 (0.549) C:88% T:NA	pCi/L	03/03/20 08:23	13982-63-3	
Radium-228	EPA 9320	0.462 ± 0.384 (0.771) C:81% T:92%	pCi/L	03/11/20 16:10	15262-20-1	
Total Radium	Total Radium Calculation	1.08 ± 0.739 (1.32)	pCi/L	03/12/20 11:02	7440-14-4	

Sample: YGWA-4I		Lab ID: 2628973009	Collected: 02/12/20 13:48	Received: 02/18/20 09:10	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.848 ± 0.258 (0.270) C:85% T:NA	pCi/L	03/03/20 18:49	13982-63-3	
Radium-228	EPA 9320	0.403 ± 0.362 (0.732) C:75% T:94%	pCi/L	03/11/20 16:12	15262-20-1	
Total Radium	Total Radium Calculation	1.25 ± 0.620 (1.00)	pCi/L	03/12/20 11:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

Sample: YGWA-20S		Lab ID: 2628973010	Collected: 02/12/20 13:45	Received: 02/18/20 09:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.318 ± 0.173 (0.282)		pCi/L	03/03/20 18:32	13982-63-3	
		C:93% T:NA					
Radium-228	EPA 9320	0.791 ± 0.522 (1.01)		pCi/L	03/11/20 16:12	15262-20-1	
		C:71% T:90%					
Total Radium	Total Radium Calculation	1.11 ± 0.695 (1.29)		pCi/L	03/12/20 11:03	7440-14-4	

Sample: YGWA-39		Lab ID: 2628973011	Collected: 02/12/20 12:20	Received: 02/18/20 09:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.351 ± 0.166 (0.243)		pCi/L	03/03/20 18:33	13982-63-3	
		C:90% T:NA					
Radium-228	EPA 9320	0.0993 ± 0.365 (0.825)		pCi/L	03/11/20 16:12	15262-20-1	
		C:74% T:95%					
Total Radium	Total Radium Calculation	0.450 ± 0.531 (1.07)		pCi/L	03/12/20 11:03	7440-14-4	

Sample: YGWA-211		Lab ID: 2628973012	Collected: 02/12/20 14:45	Received: 02/18/20 09:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.915 ± 0.284 (0.339)		pCi/L	03/03/20 18:34	13982-63-3	
		C:89% T:NA					
Radium-228	EPA 9320	0.695 ± 0.526 (1.05)		pCi/L	03/11/20 16:13	15262-20-1	
		C:74% T:85%					
Total Radium	Total Radium Calculation	1.61 ± 0.810 (1.39)		pCi/L	03/12/20 11:03	7440-14-4	

Sample: YGWC-24S		Lab ID: 2628973013	Collected: 02/13/20 14:53	Received: 02/18/20 09:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.474 ± 0.186 (0.239)		pCi/L	03/03/20 18:34	13982-63-3	
		C:94% T:NA					
Radium-228	EPA 9320	-0.0282 ± 0.385 (0.891)		pCi/L	03/11/20 16:13	15262-20-1	
		C:78% T:96%					
Total Radium	Total Radium Calculation	0.474 ± 0.571 (1.13)		pCi/L	03/12/20 11:03	7440-14-4	

Sample: DUP-2		Lab ID: 2628973014	Collected: 02/13/20 00:00	Received: 02/18/20 09:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.642 ± 0.207 (0.187)		pCi/L	03/03/20 18:34	13982-63-3	
		C:90% T:NA					
Radium-228	EPA 9320	0.300 ± 0.346 (0.727)		pCi/L	03/11/20 16:13	15262-20-1	
		C:78% T:90%					

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DUP-2 Lab ID: 2628973014 Collected: 02/13/20 00:00 Received: 02/18/20 09:10 Matrix: Water						
PWS: Site ID: Sample Type:						
Total Radium	Total Radium Calculation	0.942 ± 0.553 (0.914)	pCi/L	03/12/20 11:03	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: EB-1-2-14-20 Lab ID: 2628973015 Collected: 02/14/20 09:45 Received: 02/18/20 09:10 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.316 ± 0.228 (0.356) C:91% T:NA	pCi/L	03/04/20 08:55	13982-63-3	
Radium-228	EPA 9320	0.498 ± 0.359 (0.697) C:78% T:98%	pCi/L	03/11/20 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.814 ± 0.587 (1.05)	pCi/L	03/12/20 11:03	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-41 Lab ID: 2628973016 Collected: 02/14/20 10:00 Received: 02/18/20 09:10 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.663 ± 0.326 (0.402) C:89% T:NA	pCi/L	03/04/20 08:55	13982-63-3	
Radium-228	EPA 9320	0.500 ± 0.401 (0.792) C:77% T:83%	pCi/L	03/11/20 16:13	15262-20-1	
Total Radium	Total Radium Calculation	1.16 ± 0.727 (1.19)	pCi/L	03/12/20 11:03	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-33S Lab ID: 2628973017 Collected: 02/14/20 11:40 Received: 02/18/20 09:10 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.666 ± 0.331 (0.426) C:93% T:NA	pCi/L	03/04/20 08:55	13982-63-3	
Radium-228	EPA 9320	0.346 ± 0.398 (0.838) C:78% T:88%	pCi/L	03/11/20 16:13	15262-20-1	
Total Radium	Total Radium Calculation	1.01 ± 0.729 (1.26)	pCi/L	03/12/20 11:03	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-36 Lab ID: 2628973018 Collected: 02/14/20 11:55 Received: 02/18/20 09:10 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.618 ± 0.307 (0.358) C:89% T:NA	pCi/L	03/04/20 08:55	13982-63-3	
Radium-228	EPA 9320	0.443 ± 0.398 (0.808) C:78% T:89%	pCi/L	03/11/20 16:13	15262-20-1	
Total Radium	Total Radium Calculation	1.06 ± 0.705 (1.17)	pCi/L	03/12/20 11:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

Sample: YGWC-42		Lab ID: 2628973019	Collected: 02/14/20 10:30	Received: 02/18/20 09:10	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.896 ± 0.371 (0.400) C:91% T:NA	pCi/L	03/04/20 08:55	13982-63-3	
Radium-228	EPA 9320	0.660 ± 0.386 (0.707) C:79% T:93%	pCi/L	03/11/20 16:13	15262-20-1	
Total Radium	Total Radium Calculation	1.56 ± 0.757 (1.11)	pCi/L	03/12/20 11:03	7440-14-4	

Sample: FB-2-2-14-20		Lab ID: 2628973020	Collected: 02/14/20 12:00	Received: 02/18/20 09:10	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.327 ± 0.248 (0.424) C:97% T:NA	pCi/L	03/04/20 08:29	13982-63-3	
Radium-228	EPA 9320	0.545 ± 0.414 (0.814) C:75% T:91%	pCi/L	03/11/20 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.872 ± 0.662 (1.24)	pCi/L	03/12/20 11:03	7440-14-4	

Sample: YGWC-38		Lab ID: 2628973021	Collected: 02/14/20 13:25	Received: 02/19/20 09:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.788 ± 0.349 (0.387) C:92% T:NA	pCi/L	03/04/20 08:29	13982-63-3	
Radium-228	EPA 9320	0.334 ± 0.389 (0.820) C:76% T:86%	pCi/L	03/11/20 12:17	15262-20-1	
Total Radium	Total Radium Calculation	1.12 ± 0.738 (1.21)	pCi/L	03/13/20 08:38	7440-14-4	

Sample: YGWC-43		Lab ID: 2628973022	Collected: 02/17/20 12:00	Received: 02/19/20 09:20	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 ± 0.757 (0.543) C:94% T:NA	pCi/L	03/04/20 08:29	13982-63-3	
Radium-228	EPA 9320	1.19 ± 0.496 (0.793) C:78% T:80%	pCi/L	03/11/20 12:17	15262-20-1	
Total Radium	Total Radium Calculation	4.19 ± 1.25 (1.34)	pCi/L	03/13/20 08:38	7440-14-4	

Sample: EB-2-2-17-20		Lab ID: 2628973023	Collected: 02/17/20 11:50	Received: 02/19/20 09:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.426 ± 0.295 (0.503) C:95% T:NA	pCi/L	03/04/20 08:29	13982-63-3	
Radium-228	EPA 9320	0.809 ± 0.465 (0.859) C:74% T:83%	pCi/L	03/11/20 12:17	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	1.24 ± 0.760 (1.36)	pCi/L	03/13/20 08:38	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.610 ± 0.329 (0.475) C:91% T:NA	pCi/L	03/04/20 08:14	13982-63-3	
Radium-228	EPA 9320	0.850 ± 0.466 (0.841) C:77% T:74%	pCi/L	03/11/20 12:17	15262-20-1	
Total Radium	Total Radium Calculation	1.46 ± 0.795 (1.32)	pCi/L	03/13/20 08:38	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.292 ± 0.241 (0.418) C:90% T:NA	pCi/L	03/04/20 08:15	13982-63-3	
Radium-228	EPA 9320	1.23 ± 0.471 (0.697) C:78% T:79%	pCi/L	03/11/20 12:18	15262-20-1	
Total Radium	Total Radium Calculation	1.52 ± 0.712 (1.12)	pCi/L	03/13/20 08:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

QC Batch: 385672 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

METHOD BLANK: 1868416 Matrix: Water
Associated Lab Samples: 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.190 ± 0.252 (0.542) C:98% T:NA	pCi/L	03/04/20 08:30	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

QC Batch: 385673 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

METHOD BLANK: 1868417 Matrix: Water
Associated Lab Samples: 2628973021, 2628973022, 2628973023, 2628973024, 2628973025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.892 ± 0.402 (0.648) C:79% T:78%	pCi/L	03/11/20 12:18	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

QC Batch: 385668 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008

METHOD BLANK: 1868413 Matrix: Water
Associated Lab Samples: 2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.411 ± 0.292 (0.553) C:86% T:91%	pCi/L	03/11/20 16:09	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

QC Batch: 385669 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016,
2628973017, 2628973018, 2628973019, 2628973020

METHOD BLANK: 1868414 Matrix: Water
Associated Lab Samples: 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016,
2628973017, 2628973018, 2628973019, 2628973020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.486 ± 0.182 (0.217) C:96% T:NA	pCi/L	03/03/20 17:19	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628973
Pace Project No.: 30350267

QC Batch:	385666	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008		

METHOD BLANK:	1868412	Matrix:	Water
Associated Lab Samples:	2628973001, 2628973002, 2628973003, 2628973004, 2628973005, 2628973006, 2628973007, 2628973008		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.603 ± 0.260 (0.342) C:89% T:NA	pCi/L	03/02/20 19:23	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628973

Pace Project No.: 30350267

QC Batch: 385670

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016, 2628973017, 2628973018, 2628973019, 2628973020

METHOD BLANK: 1868415

Matrix: Water

Associated Lab Samples: 2628973009, 2628973010, 2628973011, 2628973012, 2628973013, 2628973014, 2628973015, 2628973016, 2628973017, 2628973018, 2628973019, 2628973020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.127 ± 0.308 (0.687) C:77% T:91%	pCi/L	03/11/20 16:12	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 2628973
Pace Project No.: 30350267

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(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

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Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

Cert. Needed: Yes No

Workorder: 2628973 Workorder Name: PLANT YATES AMA AND R6 FEB

Owner Received Date: 2/12/2020 Results Requested By: 2/26/2020



2/1 6845

NO#: 30350267

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Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3	Received By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N
1	YGWA-18S	2/11/2020 12:39	2628973001	Water	✓		2-14-20 10:15			X			
2	YGWA-17S	2/11/2020 11:21	2628973002	Water	✓					X			
3	YGWA-18I	2/11/2020 13:56	2628973003	Water	✓					X			
4	YGWA-5D	2/12/2020 10:38	2628973004	Water	✓					X			
5	YGWA-4D	2/12/2020 10:42	2628973005	Water	✓					X			
6	YGWA-5I	2/12/2020 11:55	2628973006	Water	✓					X			
7	FB-1-2-12-20	2/12/2020 10:20	2628973007	Water	✓					X			
8	DUP-1	2/11/2020 00:00	2628973008	Water	✓					X			

Transfers	Released By	Date/Time	Received By	Date/Time
1.	<i>Pace</i>	2/13/20 17:00	<i>[Signature]</i>	2-14-20 10:15
2				
3				

Cooler Temperature on Receipt *NA* °C Custody Seal *Y or N* Received on Ice *Y or N* Samples Intact *Y or N*

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

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

Workorder: 2628973

Workorder Name: PLANT YATES AMA AND R6 FEB

State Of Origin: GA

Cert. Needed: Yes No

Owner Received Date: 2/12/2020

Results Requested By: 2/26/2020

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21 days

NO#: 30350267

PM: JAC Due Date: 03/06/20

CLIENT: PACE_26_ATGA

Item	Sample ID	Sample Type	Collection Date/Time	Lab ID	Matrix	NO#	State	Received	Requested	By	Due	Client	Lab Use Only
1	YGWA-18S	PS	2/11/2020 12:39	2628973001	Water	1	GA	X	X	RAD 9315			
2	YGWA-17S	PS	2/11/2020 11:21	2628973002	Water	1	GA	X	X	RAD 9320			
3	YGWA-18I	PS	2/11/2020 13:56	2628973003	Water	1	GA	X	X				
4	YGWA-5D	PS	2/12/2020 10:38	2628973004	Water	1	GA	X	X				
5	YGWA-4D	PS	2/12/2020 10:42	2628973005	Water	1	GA	X	X				
6	YGWA-5I	PS	2/12/2020 11:55	2628973006	Water	1	GA	X	X				
7	FB-1-2-12-20	PS	2/12/2020 10:20	2628973007	Water	1	GA	X	X				
8	DUP	PS	2/11/2020 00:00	2628973008	Water	1	GA	X	X				
9	YGWA-4I	PS	2/12/2020 13:48	2628973009	Water	1	GA	X	X				019
10	YGWA-20S	PS	2/12/2020 13:45	2628973010	Water	1	GA	X	X				010
11	YGWA-39	PS	2/12/2020 12:20	2628973011	Water	1	GA	X	X				011
12	YGWA-21I	PS	2/12/2020 14:45	2628973012	Water	1	GA	X	X				012
13	YGWA-24S	PS	2/13/2020 14:53	2628973013	Water	1	GA	X	X				013
14	DUP-2	PS	2/13/2020 00:00	2628973014	Water	1	GA	X	X				014
15	EB-1-2-14-20	PS	2/14/2020 09:45	2628973015	Water	1	GA	X	X				015
16	YGWC-41	PS	2/14/2020 10:00	2628973016	Water	1	GA	X	X				016
17	YGWC-33S	PS	2/14/2020 11:40	2628973017	Water	1	GA	X	X				017
18	YGWC-36	PS	2/14/2020 11:55	2628973018	Water	1	GA	X	X				018
19	YGWC-42	PS	2/14/2020 10:30	2628973019	Water	1	GA	X	X				019

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

Cert. Needed: Yes No

Workorder: 2628973 Workorder Name: PLANT YATES AMA AND R6 FEB. Results Requested By: 2/26/2020

Owner Received Date: 2/12/2020



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Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N
1	<i>[Signature]</i>	8/17/2017:00	<i>[Signature]</i>	2-15-2020/C				
2								
3								

Lab ID	Sample ID	Collect Date/Time	Lab ID	Matrix	Container	LAB USE ONLY
FB-2-2-14-20	PS	2/14/2020 12:00	2628973020	Water	HNO3	
20						
21						
22						
23						
24						

Cooler Temperature on Receipt *11.1* °C Custody Seal *Y* or *N* Received on Ice *Y* or *N* Samples Intact *Y* or *N*

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

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA
 Cert. Needed: Yes No

Workorder: 2628973 Workorder Name: PLANT YATES AMA AND R6 FEB Owner Received Date: 2/12/2020 Results Requested By: 2/26/2020

Requested Analysis

WO#: 30350267

PM: JAC Due Date: 03/06/20
 CLIENT: PACE_26_ATGA

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Subcontract To

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3	Preserved Containers	LAB USE ONLY
1	YGWA-18S	PS	2/11/2020 12:39	2628973001	Water	1		
2	YGWA-17S	PS	2/11/2020 11:21	2628973002	Water	1		
3	YGWA-18I	PS	2/11/2020 13:56	2628973003	Water	1		
4	YGWA-5D	PS	2/12/2020 10:38	2628973004	Water	1		
5	YGWA-40	PS	2/12/2020 10:42	2628973005	Water	1		
6	YGWA-5I	PS	2/12/2020 11:55	2628973006	Water	1		
7	FB-1-2-12-20	PS	2/12/2020 10:20	2628973007	Water	1		
8	DUP-1	PS	2/11/2020 00:00	2628973008	Water	1		
9	YGWA-4I	PS	2/12/2020 13:48	2628973009	Water	1		
10	YGWA-20S	PS	2/12/2020 13:45	2628973010	Water	1		
11	YGWA-39	PS	2/12/2020 12:20	2628973011	Water	1		
12	YGWA-21I	PS	2/12/2020 14:45	2628973012	Water	1		
13	YGWC-24S	PS	2/13/2020 14:53	2628973013	Water	1		
14	DUP-2	PS	2/13/2020 00:00	2628973014	Water	1		
15	EB-1-2-14-20	PS	2/14/2020 09:45	2628973015	Water	1		
16	YGWC-41	PS	2/14/2020 10:00	2628973016	Water	1		
17	YGWC-33S	PS	2/14/2020 11:40	2628973017	Water	1		
18	YGWC-36	PS	2/14/2020 11:55	2628973018	Water	1		
19	YGWC-42	PS	2/14/2020 10:30	2628973019	Water	1		

RAD 9315
 RAD 9320

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

Cert. Needed: Yes No

Workorder: 2628973 Workorder Name: PLANT YATES AMA AND R6 FEB

Owner Received Date: 2/12/2020 Results Requested By: 2/26/2020

Subcontract To

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WO# : 30350267

PM: JAC

Due Date: 03/06/20

CLIENT: PACE_26_ATGA

Requested Analysis

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	LAB USE ONLY
20	FB-2-2-14-20	PS	2/14/2020 12:00	2628973020	Water	1	
21	YGWC-38	PS	2/14/2020 13:25	2628973021	Water	2	
22	YGWC-43	PS	2/17/2020 12:00	2628973022	Water	2	021
23	EB-2-2-17-20	PS	2/17/2020 11:50	2628973023	Water	2	022
24	YGWC-23S	PS	2/17/2020 13:20	2628973024	Water	2	023
25	YGWC-49	PS	2/17/2020 14:30	2628973025	Water	2	024 025

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	2/18/2017 10:00	<i>[Signature]</i>	2/18/2020
2				
3				

Cooler Temperature on Receipt	MA°C	Custody Seal	Y or N	Received on Ice	Y or N	Samples Intact	Y or N
			N		N		N

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



Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace NC

Project # 30350267

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1657 9506 2497

Label	<u>DW</u>
LIMS Login	<u>PM</u>

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

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				<u>(C)10391</u>	<u>PM 2-17-20</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Orthophosphate field filtered	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Filtered volume received for Dissolved tests All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				<u>PH22</u>	
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>DW</u>	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>PM</u>	Date: <u>2-17-20</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

WO#: 30350267

Pittsburgh Lab Sample Condition Upon Receipt

PM: JAC Due Date: 03/06/20
CLIENT: PACE_26_ATGA



Client Name: Pace NC

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 1657 9506 3368

Label DK
LIMS Login DK

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

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				<u>1000391</u>	<u>DK Z-</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.	
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
-Includes date/time/ID Matrix: <u>WT</u>					
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	
Orthophosphate field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	
Hex Cr Aqueous sample field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	
Organic Samples checked for dechlorination:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					<u>DK Z</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	Date/time of preservation
				<u>DK</u>	
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17.	
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18.	
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	Date: <u>2-18-20</u>
				<u>DK</u>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace NC

Project # 3035 0267

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1697 9506 4033

Label	<u>BLM</u>
LIMS Login	<u>BLM</u>

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

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and Initials of person examining contents:
	Yes	No	N/A	
				<u>1012191</u>
				<u>DL 2-20-20</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				<u>PM02</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>DL</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>DL</u> Date: <u>2-20-20</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

missing samples 001-020, only received 021-025

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 3/2/2020
Worklist: 52608
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1868412
MB concentration:	0.603
M/B Counting Uncertainty:	0.245
MB MDC:	0.342
MB Numerical Performance Indicator:	4.83
MB Status vs Numerical Indicator:	N/A
MB Status vs MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD52608	LCSD52608
Count Date:	3/3/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.050
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.512
Target Conc. (pCi/L, g, F):	4.685
Uncertainty (Calculated):	0.066
Result (pCi/L, g, F):	4.517
LCSD Counting Uncertainty (pCi/L, g, F):	0.744
Numerical Performance Indicator:	-0.47
Percent Recovery:	96.22%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	2628973004
Duplicate Sample I.D.:	2628973004DUP
Sample Result (pCi/L, g, F):	3.060
Sample Result Counting Uncertainty (pCi/L, g, F):	0.623
Sample Duplicate Result (pCi/L, g, F):	2.847
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.625
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	0.473
Duplicate RPD:	7.20%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.
Sample MS I.D.:	Sample MS I.D.
Sample MSD I.D.:	Sample MSD I.D.
Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:	

LAB
3-3-2020
LAM 3/3/20

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 3/2/2020
Worklist: 52608
Matrix: DW

Method Blank Assessment	
MB Sample ID	1868412
MB Concentration:	0.603
M/B Counting Uncertainty:	0.245
MB MDC:	0.342
MB Numerical Performance Indicator:	4.83
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCS/D (Y or N)?		N
	LCS52608	LCS52608	
Count Date:	3/3/2020		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.050		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.512		
Target Conc. (pCi/L, g, F):	4.695		
Uncertainty (Calculated):	0.056		
Result (pCi/L, g, F):	4.517		
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.744		
Numerical Performance Indicator:	-0.47		
Percent Recovery:	96.22%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	2628973003
Duplicate Sample I.D.:	2628973003DUP
Sample Result (pCi/L, g, F):	1.224
Sample Result Counting Uncertainty (pCi/L, g, F):	0.444
Sample Duplicate Result (pCi/L, g, F):	0.496
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.335
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	2.565
Duplicate RPD:	84.62%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

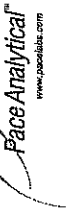
*The method blank result is below the reporting limit for this analysis and is acceptable.

***Batch must be re-prepped due to unacceptable precision. - Numerical indicator OK

VAM 3/3/20

HUB
3-3-2020

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 3/3/2020
Worklist: 52610
Matrix: DW

Method Blank Assessment	
MB Sample ID	1868414
MB concentration:	0.486
MIB Counting Uncertainty:	0.188
MB MDC:	0.217
MB Numerical Performance Indicator:	5.69
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCS# (Y or N)?	N
LCS52610	LCS52610
Count Date:	3/4/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.050
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.502
Target Conc. (pCi/L, g, F):	4.795
Uncertainty (Calculated):	0.088
Result (pCi/L, g, F):	4.905
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.753
Numerical Performance Indicator:	0.29
Percent Recovery:	102.29%
Status vs Numerical Indicator:	N/A
Upper % Recovery Limits:	Pass
Lower % Recovery Limits:	125%
	73%

Duplicate Sample Assessment	
Sample I.D.:	2628972014
Duplicate Sample I.D.:	2628972014DUP
Sample Result (pCi/L, g, F):	0.331
Sample Result Counting Uncertainty (pCi/L, g, F):	0.157
Sample Duplicate Result (pCi/L, g, F):	0.427
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.278
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	-0.596
Duplicate RPD:	25-56%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail**
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.
**Beta must be re-prepped due to unacceptable precision - Results < 5x MDC, N/A < 3 acceptable

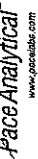
Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	Sample I.D.:		
	Sample MS I.D.:		
	Sample MSD I.D.:		
	Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	Spike Volume Used in MS (mL):		
	Spike Volume Used in MSD (mL):		
	MS Aliquot (L, g, F):		
	MSD Aliquot (L, g, F):		
	MS Target Conc. (pCi/L, g, F):		
	MSD Target Conc. (pCi/L, g, F):		
	MS Spike Uncertainty (calculated):		
	MSD Spike Uncertainty (calculated):		
	Sample Result:		
	Sample Result Counting Uncertainty (pCi/L, g, F):		
	Sample Matrix Spike Result:		
	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
	Sample Matrix Spike Duplicate Result:		
	Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):		
	MS Numerical Performance Indicator:		
	MSD Numerical Performance Indicator:		
	MS Percent Recovery:		
	MSD Percent Recovery:		
	MS Status vs Numerical Indicator:		
	MSD Status vs Numerical Indicator:		
	MS Status vs Recovery:		
	MSD Status vs Recovery:		
	MS/MSD Upper % Recovery Limits:		
	MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Sample Matrix Spike Result:	Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

RAM314120

DEBB HLB
MMW

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 3/3/2020
Worklist: 52610
Matrix: DW

Method Blank Assessment	
MB Sample ID	1668414
MB Concentration:	0.486
MB Counting Uncertainty:	0.168
MB MDC:	0.217
MB Numerical Performance Indicator:	5.69
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSID (Y or N)?	N
LCS52610	LCS052610
Count Date:	3/4/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.050
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.502
Target Conc. (pCi/L, g, F):	4.795
Uncertainty (Calculated):	0.058
Result (pCi/L, g, F):	4.905
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.753
Numerical Performance Indicator:	0.29
Percent Recovery:	102.29%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	2628972015
Duplicate Sample I.D.:	2628972015DUP
Sample Result (pCi/L, g, F):	0.376
Sample Duplicate Result (pCi/L, g, F):	0.151
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.344
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.256
Are sample and/or duplicate results below RL?	See Below #
Duplicate Numerical Performance Indicator:	0.208
Duplicate RPD:	8.79%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

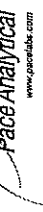
Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate RPD: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Handwritten notes:
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Handwritten ID: VAN314120

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 3/3/2020
Worklist: 52612
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1868416
MB Concentration:	0.190
M/B Counting Uncertainty:	0.250
MB MDC:	0.542
MB Numerical Performance Indicator:	1.49
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS52612	Y
Count Date:	3/4/2020	LCS52612
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.050	24.050
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.501	0.501
Target Conc. (pCi/L, g, F):	4.803	4.804
Uncertainty (Calculated):	0.058	0.058
Result (pCi/L, g, F):	4.425	4.603
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.745	0.754
Numerical Performance Indicator:	-0.99	-0.52
Percent Recovery:	92.14%	95.80%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS52612
Duplicate Sample I.D.:	LCS52612
Sample Result (pCi/L, g, F):	4.425
Sample Duplicate Result (pCi/L, g, F):	0.745
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	4.603
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.754
Ave sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.328
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.90%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
MS Aliquot (L, g, F):			
MS Target Conc. (pCi/L, g, F):			
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result:			
Sample Result Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Result:			
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Duplicate Result:			
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:			
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits:			
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten notes:
03/03/2020
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52612
DW

Handwritten note: LAM314120

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 3/2/2020
Worklist: 52609
Matrix: WT



Method Blank Assessment	MB Sample ID	1866413
MB concentration:	0.411	
MB 2 Sigma CSU:	0.292	
MB MDC:	0.553	
MB Numerical Performance Indicator:	2.76	
MB Status vs Numerical Indicator:	Warning	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS52609	Y
Count Date:	3/11/2020	LCS52609
Spike I.D.:	19-057	3/11/2020
Decay Corrected Spike Concentration (pCi/mL):	34.881	19-057
Volume Used (mL):	0.10	34.881
Aliquot Volume (L, g, F):	0.825	0.10
Target Conc. (pCi/L, g, F):	4.228	0.806
Uncertainty (Calculated):	0.304	4.330
Result (pCi/L, g, F):	3.218	0.312
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.783	3.862
Numerical Performance Indicator:	-2.36	0.924
Percent Recovery:	76.07%	-0.94
Status vs Numerical Indicator:	N/A	89.18%
Status vs Recovery:	Pass	N/A
Upper % Recovery Limits:	135%	Pass
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten notes:
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VAL

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
 Analyst: VAL
 Date: 3/12/2020
 Worklist: 52611
 Matrix: WT

Method Blank Assessment	
MB Sample ID	1868415
MB concentration:	0.127
M/B 2 Sigma CSU:	0.308
MB MDC:	0.687
MB Numerical Performance Indicator:	0.81
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS52611	LCS52611
Count Date:	3/11/2020	3/11/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.880	34.880
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.810	0.803
Target Conc. (pCi/L, g, F):	4.304	4.345
Uncertainty (Calculated):	0.310	0.313
Result (pCi/L, g, F):	3.175	3.167
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.788	0.804
Numerical Performance Indicator:	-2.61	-2.68
Percent Recovery:	73.76%	72.88%
Status vs Numerical Indicator:	N/A	N/A
Upper % Recovery Limits:	Pass	Pass
Lower % Recovery Limits:	135%	135%
% RPD Limit:	60%	60%

Duplicate Sample Assessment	
Sample I.D.:	LCS52611
Duplicate Sample I.D.:	LCS52611
Sample Result (pCi/L, g, F):	3.175
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.788
Sample Duplicate Result (pCi/L, g, F):	3.167
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.804
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.015
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	1.23%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 3/2/2020
Worklist: 52613
Matrix: WT



Method Blank Assessment	
MB Sample ID	1868417
MB concentration:	0.892
M/B 2 Sigma CSU:	0.402
MB MDC:	0.648
MB Numerical Performance Indicator:	4.35
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSD (Y or N)?	Y
Count Date:	3/11/2020
Spike I.D.:	LCSD52613
Decay Corrected Spike Concentration (pCi/mL):	19-057
Volume Used (mL):	34.882
Aliquot Volume (L, g, F):	0.10
Target Conc. (pCi/L, g, F):	0.813
Uncertainty (Calculated):	4.243
Result (pCi/L, g, F):	0.305
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	2.870
Numerical Performance Indicator:	0.778
Percent Recovery:	-3.22
Status vs Numerical Indicator:	67.65%
Upper % Recovery Limits:	N/A
Lower % Recovery Limits:	Pass
	135%
	60%

Duplicate Sample Assessment	
Sample I.D.:	LCSD52613
Duplicate Sample I.D.:	LCSD52613
Sample Result (pCi/L, g, F):	2.870
Sample Duplicate Result (pCi/L, g, F):	0.778
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	3.147
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.778
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.493
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	8.13%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	35%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	Sample I.D.		
	Sample MS I.D.		
	Sample MSD I.D.		
	Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	Spike Volume Used in MS (mL):		
	MS Aliquot (L, g, F):		
	MS Target Conc. (pCi/L, g, F):		
	MSD Aliquot (L, g, F):		
	MSD Target Conc. (pCi/L, g, F):		
	MS Spike Uncertainty (calculated):		
	MSD Spike Uncertainty (calculated):		
Sample Result 2 Sigma CSU (pCi/L, g, F):	Sample Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	Sample Matrix Spike Result:		
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	MS Numerical Performance Indicator:		
	MSD Numerical Performance Indicator:		
	MS Percent Recovery:		
	MSD Percent Recovery:		
	MS Status vs Numerical Indicator:		
	MSD Status vs Numerical Indicator:		
	MS Status vs Recovery:		
	MSD Status vs Recovery:		
	MS/MSD Upper % Recovery Limits:		
	MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample MS I.D.:
Sample MS I.D.:	Sample MSD I.D.:
Sample Matrix Spike Result:	Sample Matrix Spike Duplicate Result:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Duplicate Numerical Performance Indicator:
	(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
	MS/MSD Duplicate Status vs Numerical Indicator:
	MS/MSD Duplicate Status vs RPD:
	% RPD Limit:

Handwritten notes: "MSD 3-12-2020" and "3-12-20" with a signature.

March 2020

Semiannual Event



LEVEL 2A LABORATORY DATA VALIDATIONS

Plant Yates AMA/R6

March 2020

Georgia Power Company – Plant Yates AMA/R6

Quality Control Review of Analytical Data – March 2020

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Atlanta, Asheville, and Pittsburgh for groundwater samples collected at Plant Yates AMA/R6 between March 24, 2020 and March 26, 2020. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma (USEPA 6010D), Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)¹ and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)². The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains-of-custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

DATA QUALITY OBJECTIVES

Laboratory Precision: Laboratory goals for precision were met.

Field Precision: Field goals for precision were met, with the exceptions of Chromium and Total Dissolved Solids (TDS) on YGWA-5I (2630435001) and DUP-1 (2630435008) and Chromium on YGWC-36 (2630435010) and DUP-2 (2630435011) as described in the qualifications section below.

Accuracy: Laboratory goals for accuracy were met, with the exceptions of calcium on YGWC-42 (2630435022) and Fluoride on YGWC-33S (2630435009) as described in the qualifications section below.

Detection Limits: Project goals for detection limits were met.

Completeness: There were no rejected analytical results for this event, resulting in a completion of 100%.

Holding Times: Holding time requirements were met.

QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

J: The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

ND: The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples YGWA-5I (2630435001), DUP-1 (2630435008), YGWC-36 (2630435010), and DUP-2 (2630435001) were qualified as estimated (J) for Chromium as the respective field relative percent differences (RPDs) exceeded QC criteria (41.38% and 46.67%, above limit of 25).
- Samples YGWA-5I (2630435001) and DUP-1 (2630435008) were qualified as estimated (J) for TDS as the RPD exceeded QC criteria (49.72% above limit of 25).
- Sample YGWC-42 (2630435022) was qualified as estimated (J) for Calcium as the associated matrix spike recovery was above the QC criteria (372% above the range of 75-125).
- Sample YGWC-33S (2630435009) was qualified as estimated (J) for Fluoride as the associated matrix spike (MS) and matrix spike duplicate (MSD) recoveries were above the QC criteria (125 % and 133% above the range of 90-110).
- Certain Radium results in SDGs 2630435 and 2630481 were qualified as non-detect (ND) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the minimum detectable concentration (MDC) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from the Plant Yates AMA/R6 sampled between March 24, 2020 and March 26, 2020 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

REFERENCES

¹USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

²USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – Plant Yates AMA/R6

Sample Summary Table – March 2020

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
30435	YGWA-5I	3/24/2020	2630435001	GW		X	X	X	X
30435	YGWA-5D	3/24/2020	2630435002	GW		X	X	X	X
30435	YGWA-17S	3/24/2020	2630435003	GW		X	X	X	X
30435	YGWA-20S	3/24/2020	2630435004	GW		X	X	X	X
30435	YGWA-21I	3/24/2020	2630435005	GW		X	X	X	X
30435	YGWA-40	3/24/2020	2630435006	GW		X	X	X	X
30435	EB-1-3-24-20	3/24/2020	2630435007	WQ	EB	X	X	X	X
30435	DUP-1	3/24/2020	2630435008	GW	FD (YGWA-5I)	X	X	X	X
30435	YGWC-33S	3/25/2020	2630435009	GW		X	X	X	X
30435	YGWC-36	3/25/2020	2630435010	GW		X	X	X	X
30435	DUP-2	3/25/2020	2630435011	GW	FD (YGWC-36)	X	X	X	X
30435	YGWC-43	3/25/2020	2630435012	GW		X	X	X	X
30435	YGWA-39	3/25/2020	2630435013	GW		X	X	X	X
30435	YGWC-49	3/25/2020	2630435014	GW		X	X	X	X
30435	FB-2-3-25-20	3/25/2020	2630435015	WQ	FB	X	X	X	X
30435	YGWA-18S	3/24/2020	2630435016	GW		X	X	X	X
30435	YGWA-18I	3/24/2020	2630435017	GW		X	X	X	X
30435	FB-1-3-24-20	3/24/2020	2630435018	WQ	FB	X	X	X	X
30435	YGWA-4I	3/25/2020	2630435019	GW		X	X	X	X
30435	YGWC-38	3/25/2020	2630435020	GW		X	X	X	X
30435	YGWC-41	3/25/2020	2630435021	GW		X	X	X	X
30435	YGWC-42	3/25/2020	2630435022	GW		X	X	X	X
30435	YGWC-23S	3/26/2020	2630435023	GW		X	X	X	X
30435	YGWC-24S	3/26/2020	2630435024	GW		X	X	X	X
30435	EB-2-3-25-20	3/25/2020	2630435025	WQ	EB	X	X	X	X
30481	YAMW-1	3/25/2020	2630481001	GW		X	X	X	X
30481	PZ-35	3/25/2020	2630481002	GW		X	X	X	X

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control

TABLE 2

Georgia Power Company – Plant Yates AMA/R6

Qualifier Summary Table – March 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
30435	YGWA-5I	Chromium			J	RPD exceeds field goal
30435	DUP-1	Chromium			J	RPD exceeds field goal
30435	YGWA-5I	TDS			J	RPD exceeds field goal
30435	DUP-1	TDS			J	RPD exceeds field goal
30435	YGWC-36	Chromium			J	RPD exceeds field goal
30435	DUP-2	Chromium			J	RPD exceeds field goal
30435	YGWC-42	Calcium			J	MS recovery above QC criteria
30435	YGWC-33S	Fluoride			J	MS/MSD recoveries above QC criteria
30435	YGWA-5I	Radium-226		0.269	ND	Blank detection
30435	YGWA-5I	Radium-228		0.877	ND	Blank detection
30435	YGWA-5D	Radium-226		0.280	ND	Blank detection
30435	YGWA-5D	Radium-228		0.816	ND	Blank detection
30435	YGWA-17S	Radium-226		0.267	ND	Blank detection
30435	YGWA-17S	Radium-228		0.755	ND	Blank detection
30435	YGWA-20S	Radium-226		0.340	ND	Blank detection
30435	YGWA-20S	Radium-228		1.49	ND	Blank detection
30435	YGWA-21I	Radium-226		0.360	ND	Blank detection
30435	YGWA-21I	Radium-228		1.17	ND	Blank detection
30435	YGWA-40	Radium-226		0.361	ND	Blank detection
30435	YGWA-40	Radium-228		1.13	ND	Blank detection
30435	YGWC-33S	Radium-226		0.419	ND	Blank detection
30435	YGWC-33S	Radium-228		0.894	ND	Blank detection
30435	YGWC-36	Radium-226		0.369	ND	Blank detection
30435	YGWC-36	Radium-228		0.875	ND	Blank detection
30435	YGWC-43	Radium-226		0.332	ND	Blank detection
30435	YGWC-43	Radium-228		1.06	ND	Blank detection
30435	YGWA-39	Radium-226		0.300	ND	Blank detection
30435	YGWA-39	Radium-228		0.952	ND	Blank detection
30435	YGWC-49	Radium-226		0.603	ND	Blank detection
30435	YGWC-49	Radium-228		1.14	ND	Blank detection

Abbreviations:

MDC – Minimum Detectable Concentration
MS/MSD – Matrix Spike / Matrix Spike Duplicate
MDL – Method Detection Limit
RL – Reporting Limit
RPD – Relative Percent Difference
SDG – Sample Delivery Group

Qualifiers:

J – Estimated Result
ND – Non-Detect Result

TABLE 2 (continued)

Georgia Power Company – Plant Yates AMA/R6

Qualifier Summary Table – March 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
30435	YGWA-4I	Radium-228		1.23	ND	Blank detection
30435	YGWC-38	Radium-226		0.459	ND	Blank detection
30435	YGWC-38	Radium-228		1.42	ND	Blank detection
30435	YGWC-41	Radium-228		1.29	ND	Blank detection
30435	YGWC-42	Radium-228		1.16	ND	Blank detection
30435	YGWC-23S	Radium-228		1.16	ND	Blank detection
30435	YGWC-24S	Radium-228		1.01	ND	Blank detection
30435	YGWA-18S	Radium-226		0.111	ND	Blank detection
30435	YGWA-18S	Radium-228		0.796	ND	Blank detection
30435	YGWA-18I	Radium-226		0.192	ND	Blank detection
30435	YGWA-18I	Radium-228		0.827	ND	Blank detection
30481	YAMW-1	Radium-226		0.501	ND	Blank detection
30481	YAMW-1	Radium-228		0.832	ND	Blank detection
30481	PZ-35	Radium-226		0.522	ND	Blank detection
30481	PZ-35	Radium-228		0.795	ND	Blank detection

Abbreviations:

MDC – Minimum Detectable Concentration
 MS/MSD – Matrix Spike / Matrix Spike Duplicate
 MDL – Method Detection Limit
 RL – Reporting Limit
 RPD – Relative Percent Difference
 SDG – Sample Delivery Group

Qualifiers:

J – Estimated Result
 ND – Non-Detect Result

April 09, 2020

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

RE: Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between March 25, 2020 and March 26, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Atlanta, GA

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

Sincerely,



Kevin Herring
kevin.herring@pacelabs.com
(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Monte Jones, ACC
Kristen Jurinko
Matt Malone, Atlantic Coast Consulting
Betsy McDaniel, Atlantic Coast Consulting
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Ryan Walker



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Pace Analytical Services Atlanta

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630435001	YGWA-5I	Water	03/24/20 14:14	03/25/20 16:15
2630435002	YGWA-5D	Water	03/24/20 12:04	03/25/20 16:15
2630435003	YGWA-17S	Water	03/24/20 10:40	03/25/20 16:15
2630435004	YGWA-20S	Water	03/24/20 11:40	03/25/20 16:15
2630435005	YGWA-21I	Water	03/24/20 12:55	03/25/20 16:15
2630435006	YGWA-40	Water	03/24/20 14:26	03/25/20 16:15
2630435007	EB-1-3-24-20	Water	03/24/20 14:10	03/25/20 16:15
2630435008	DUP-1	Water	03/24/20 00:00	03/25/20 16:15
2630435009	YGWC-33S	Water	03/25/20 12:47	03/25/20 16:15
2630435010	YGWC-36	Water	03/25/20 12:45	03/25/20 16:15
2630435011	DUP-2	Water	03/25/20 00:00	03/25/20 16:15
2630435012	YGWC-43	Water	03/25/20 11:23	03/25/20 16:15
2630435013	YGWA-39	Water	03/25/20 10:05	03/25/20 16:15
2630435014	YGWC-49	Water	03/25/20 14:17	03/25/20 16:15
2630435015	FB-2-3-25-20	Water	03/25/20 14:00	03/25/20 16:15
2630435016	YGWA-18S	Water	03/24/20 14:30	03/25/20 16:15
2630435017	YGWA-18I	Water	03/24/20 12:10	03/25/20 16:15
2630435018	FB-1-3-24-20	Water	03/24/20 12:20	03/25/20 16:15
2630435019	YGWA-4I	Water	03/25/20 10:26	03/26/20 15:20
2630435020	YGWC-38	Water	03/25/20 15:25	03/26/20 15:20
2630435021	YGWC-41	Water	03/25/20 14:00	03/26/20 15:20
2630435022	YGWC-42	Water	03/25/20 10:50	03/26/20 15:20
2630435023	YGWC-23S	Water	03/26/20 11:03	03/26/20 15:20
2630435024	YGWC-24S	Water	03/26/20 12:18	03/26/20 15:20
2630435025	EB-2-3-25-20	Water	03/25/20 14:25	03/26/20 15:20

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SAMPLE ANALYTE COUNT

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630435001	YGWA-5I	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435002	YGWA-5D	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435003	YGWA-17S	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435004	YGWA-20S	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435005	YGWA-21I	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435006	YGWA-40	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435007	EB-1-3-24-20	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435008	DUP-1	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435009	YGWC-33S	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435010	YGWC-36	EPA 6010D	KLH	1	PASI-GA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630435011	DUP-2	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630435012	YGWC-43	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
2630435013	YGWA-39	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630435014	YGWC-49	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
2630435015	FB-2-3-25-20	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630435016	YGWA-18S	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
2630435017	YGWA-18I	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630435018	FB-1-3-24-20	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
2630435019	YGWA-4I	EPA 6020B	CSW	13	PASI-GA
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630435020	YGWC-38	SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
2630435021	YGWC-41	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630435022	YGWC-42	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
2630435023	YGWC-23S	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
2630435024	YGWC-24S	SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
2630435025	EB-2-3-25-20	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Atlanta, GA

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630435001	YGWA-5I					
	Field pH	5.81	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	2.5	mg/L	1.0	03/31/20 19:38	
EPA 6020B	Barium	0.021	mg/L	0.010	04/02/20 18:41	
EPA 6020B	Boron	0.0068J	mg/L	0.10	04/02/20 18:41	
EPA 6020B	Chromium	0.0014J	mg/L	0.010	04/02/20 18:41	
EPA 6020B	Lead	0.000068J	mg/L	0.0050	04/02/20 18:41	
EPA 6020B	Lithium	0.0033J	mg/L	0.030	04/02/20 18:41	
SM 2540C	Total Dissolved Solids	68.0	mg/L	10.0	03/26/20 15:32	
EPA 300.0 Rev 2.1 1993	Chloride	4.3	mg/L	1.0	04/03/20 02:25	
EPA 300.0 Rev 2.1 1993	Sulfate	2.1	mg/L	1.0	04/03/20 02:25	
2630435002	YGWA-5D					
	Field pH	7.34	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	26.1	mg/L	1.0	03/31/20 19:41	
EPA 6020B	Arsenic	0.00065J	mg/L	0.0050	04/02/20 18:46	
EPA 6020B	Barium	0.0076J	mg/L	0.010	04/02/20 18:46	
EPA 6020B	Boron	0.011J	mg/L	0.10	04/02/20 18:46	
EPA 6020B	Cobalt	0.00035J	mg/L	0.0050	04/02/20 18:46	
EPA 6020B	Lead	0.000054J	mg/L	0.0050	04/02/20 18:46	
EPA 6020B	Lithium	0.0064J	mg/L	0.030	04/02/20 18:46	
EPA 6020B	Molybdenum	0.0011J	mg/L	0.010	04/02/20 18:46	
SM 2540C	Total Dissolved Solids	139	mg/L	10.0	03/26/20 15:32	
EPA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	04/03/20 02:39	
EPA 300.0 Rev 2.1 1993	Sulfate	5.9	mg/L	1.0	04/03/20 02:39	
2630435003	YGWA-17S					
	Field pH	5.57	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	2.7	mg/L	1.0	03/31/20 19:45	
EPA 6020B	Barium	0.015	mg/L	0.010	04/02/20 18:52	
EPA 6020B	Beryllium	0.000080J	mg/L	0.0030	04/02/20 18:52	
EPA 6020B	Boron	0.0092J	mg/L	0.10	04/02/20 18:52	
EPA 6020B	Chromium	0.00087J	mg/L	0.010	04/02/20 18:52	
EPA 6020B	Lead	0.000064J	mg/L	0.0050	04/02/20 18:52	
EPA 6020B	Lithium	0.0034J	mg/L	0.030	04/02/20 18:52	
SM 2540C	Total Dissolved Solids	71.0	mg/L	10.0	03/26/20 15:32	
EPA 300.0 Rev 2.1 1993	Chloride	5.0	mg/L	1.0	04/03/20 03:35	
EPA 300.0 Rev 2.1 1993	Sulfate	5.4	mg/L	1.0	04/03/20 03:35	
2630435004	YGWA-20S					
	Field pH	5.86	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	2.6	mg/L	1.0	03/31/20 19:49	
EPA 6020B	Barium	0.015	mg/L	0.010	04/02/20 18:58	
EPA 6020B	Beryllium	0.000076J	mg/L	0.0030	04/02/20 18:58	
EPA 6020B	Chromium	0.00077J	mg/L	0.010	04/02/20 18:58	
EPA 6020B	Lead	0.00011J	mg/L	0.0050	04/02/20 18:58	
SM 2540C	Total Dissolved Solids	76.0	mg/L	10.0	03/26/20 15:33	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	04/03/20 03:49	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630435005	YGWA-21I					
	Field pH	6.35	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	6.0	mg/L	1.0	03/31/20 19:52	
EPA 6020B	Antimony	0.0017J	mg/L	0.0030	04/02/20 19:04	
EPA 6020B	Arsenic	0.0013J	mg/L	0.0050	04/02/20 19:04	
EPA 6020B	Barium	0.011	mg/L	0.010	04/02/20 19:04	
EPA 6020B	Boron	0.016J	mg/L	0.10	04/02/20 19:04	
EPA 6020B	Cobalt	0.0061	mg/L	0.0050	04/02/20 19:04	
EPA 6020B	Lithium	0.0064J	mg/L	0.030	04/02/20 19:04	
SM 2540C	Total Dissolved Solids	117	mg/L	10.0	03/26/20 15:33	
EPA 300.0 Rev 2.1 1993	Chloride	2.8	mg/L	1.0	04/03/20 04:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.081J	mg/L	0.30	04/03/20 04:03	
EPA 300.0 Rev 2.1 1993	Sulfate	3.0	mg/L	1.0	04/03/20 04:03	
2630435006	YGWA-40					
	Field pH	5.29	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	4.8	mg/L	1.0	03/31/20 19:56	
EPA 6020B	Barium	0.033	mg/L	0.010	04/02/20 19:09	
EPA 6020B	Beryllium	0.00022J	mg/L	0.0030	04/02/20 19:09	
EPA 6020B	Boron	0.088J	mg/L	0.10	04/02/20 19:09	
EPA 6020B	Chromium	0.00055J	mg/L	0.010	04/02/20 19:09	
EPA 6020B	Selenium	0.0020J	mg/L	0.010	04/02/20 19:09	
SM 2540C	Total Dissolved Solids	84.0	mg/L	10.0	03/26/20 15:33	
EPA 300.0 Rev 2.1 1993	Chloride	4.7	mg/L	1.0	04/03/20 04:17	
EPA 300.0 Rev 2.1 1993	Sulfate	25.2	mg/L	1.0	04/03/20 04:17	
2630435007	EB-1-3-24-20					
EPA 6010D	Calcium	0.22J	mg/L	1.0	03/31/20 19:59	
EPA 6020B	Chromium	0.00047J	mg/L	0.010	04/02/20 19:15	
2630435008	DUP-1					
EPA 6010D	Calcium	2.4	mg/L	1.0	03/31/20 20:09	
EPA 6020B	Barium	0.020	mg/L	0.010	04/02/20 19:21	
EPA 6020B	Boron	0.0056J	mg/L	0.10	04/02/20 19:21	
EPA 6020B	Chromium	0.00092J	mg/L	0.010	04/02/20 19:21	
EPA 6020B	Lead	0.000062J	mg/L	0.0050	04/02/20 19:21	
EPA 6020B	Lithium	0.0033J	mg/L	0.030	04/02/20 19:21	
SM 2540C	Total Dissolved Solids	113	mg/L	10.0	03/30/20 12:54	D6
EPA 300.0 Rev 2.1 1993	Chloride	4.3	mg/L	1.0	04/03/20 04:45	
EPA 300.0 Rev 2.1 1993	Sulfate	2.2	mg/L	1.0	04/03/20 04:45	
2630435009	YGWC-33S					
	Field pH	3.86	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	97.8	mg/L	1.0	03/31/20 20:13	
EPA 6020B	Arsenic	0.0030J	mg/L	0.0050	04/02/20 19:26	
EPA 6020B	Barium	0.012	mg/L	0.010	04/02/20 19:26	
EPA 6020B	Beryllium	0.017	mg/L	0.0030	04/02/20 19:26	
EPA 6020B	Boron	5.3	mg/L	0.10	04/02/20 19:26	
EPA 6020B	Cadmium	0.0020J	mg/L	0.0025	04/02/20 19:26	
EPA 6020B	Chromium	0.0012J	mg/L	0.010	04/02/20 19:26	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630435009	YGWC-33S					
EPA 6020B	Cobalt	0.020	mg/L	0.0050	04/02/20 19:26	
EPA 6020B	Lead	0.00083J	mg/L	0.0050	04/02/20 19:26	
EPA 6020B	Lithium	0.029J	mg/L	0.030	04/02/20 19:26	
EPA 6020B	Selenium	0.022	mg/L	0.010	04/02/20 19:26	
EPA 6020B	Thallium	0.00015J	mg/L	0.0010	04/02/20 19:26	
SM 2540C	Total Dissolved Solids	839	mg/L	10.0	03/30/20 12:57	
EPA 300.0 Rev 2.1 1993	Chloride	3.8	mg/L	1.0	04/02/20 16:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.25J	mg/L	0.30	04/02/20 16:03	M1
EPA 300.0 Rev 2.1 1993	Sulfate	448	mg/L	9.0	04/03/20 07:17	
2630435010	YGWC-36					
	Field pH	5.49	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	10.6	mg/L	1.0	03/31/20 20:17	
EPA 6020B	Antimony	0.0011J	mg/L	0.0030	04/02/20 19:44	
EPA 6020B	Barium	0.025	mg/L	0.010	04/02/20 19:44	
EPA 6020B	Beryllium	0.00022J	mg/L	0.0030	04/02/20 19:44	
EPA 6020B	Boron	0.11	mg/L	0.10	04/02/20 19:44	
EPA 6020B	Cadmium	0.00019J	mg/L	0.0025	04/02/20 19:44	
EPA 6020B	Chromium	0.00074J	mg/L	0.010	04/02/20 19:44	
EPA 6020B	Cobalt	0.00038J	mg/L	0.0050	04/02/20 19:44	
EPA 6020B	Lead	0.00010J	mg/L	0.0050	04/02/20 19:44	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	04/02/20 19:44	
EPA 6020B	Selenium	0.0024J	mg/L	0.010	04/02/20 19:44	
SM 2540C	Total Dissolved Solids	164	mg/L	10.0	03/30/20 12:58	
EPA 300.0 Rev 2.1 1993	Chloride	6.3	mg/L	1.0	04/02/20 16:47	
EPA 300.0 Rev 2.1 1993	Sulfate	58.8	mg/L	1.0	04/02/20 16:47	
2630435011	DUP-2					
EPA 6010D	Calcium	10.6	mg/L	1.0	03/31/20 20:20	
EPA 6020B	Antimony	0.0011J	mg/L	0.0030	04/02/20 19:49	
EPA 6020B	Barium	0.026	mg/L	0.010	04/02/20 19:49	
EPA 6020B	Beryllium	0.00021J	mg/L	0.0030	04/02/20 19:49	
EPA 6020B	Boron	0.11	mg/L	0.10	04/02/20 19:49	
EPA 6020B	Cadmium	0.00015J	mg/L	0.0025	04/02/20 19:49	
EPA 6020B	Chromium	0.00046J	mg/L	0.010	04/02/20 19:49	
EPA 6020B	Cobalt	0.00037J	mg/L	0.0050	04/02/20 19:49	
EPA 6020B	Lead	0.00010J	mg/L	0.0050	04/02/20 19:49	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	04/02/20 19:49	
EPA 6020B	Selenium	0.0022J	mg/L	0.010	04/02/20 19:49	
SM 2540C	Total Dissolved Solids	184	mg/L	10.0	03/30/20 12:58	
EPA 300.0 Rev 2.1 1993	Chloride	6.2	mg/L	1.0	04/02/20 17:01	
EPA 300.0 Rev 2.1 1993	Sulfate	58.0	mg/L	1.0	04/02/20 17:01	
2630435012	YGWC-43					
	Field pH	5.79	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	12.1	mg/L	1.0	03/31/20 20:24	
EPA 6020B	Antimony	0.00031J	mg/L	0.0030	04/02/20 18:50	
EPA 6020B	Arsenic	0.00070J	mg/L	0.0050	04/02/20 18:50	
EPA 6020B	Barium	0.033	mg/L	0.010	04/02/20 18:50	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630435012	YGWC-43					
EPA 6020B	Beryllium	0.00034J	mg/L	0.0030	04/02/20 18:50	
EPA 6020B	Boron	2.4	mg/L	0.10	04/02/20 18:50	
EPA 6020B	Cobalt	0.0016J	mg/L	0.0050	04/02/20 18:50	
EPA 6020B	Lead	0.000075J	mg/L	0.0050	04/02/20 18:50	
EPA 6020B	Lithium	0.016J	mg/L	0.030	04/02/20 18:50	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	04/02/20 18:50	
SM 2540C	Total Dissolved Solids	352	mg/L	10.0	03/30/20 12:58	
EPA 300.0 Rev 2.1 1993	Chloride	1.8	mg/L	1.0	04/02/20 17:16	
EPA 300.0 Rev 2.1 1993	Fluoride	0.073J	mg/L	0.30	04/02/20 17:16	
EPA 300.0 Rev 2.1 1993	Sulfate	164	mg/L	3.0	04/03/20 08:01	
2630435013	YGWA-39					
	Field pH	5.78	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	2.7	mg/L	1.0	03/31/20 20:27	
EPA 6020B	Antimony	0.0014J	mg/L	0.0030	04/02/20 19:13	
EPA 6020B	Arsenic	0.0012J	mg/L	0.0050	04/02/20 19:13	
EPA 6020B	Barium	0.014	mg/L	0.010	04/02/20 19:13	
EPA 6020B	Boron	0.043J	mg/L	0.10	04/02/20 19:13	
EPA 6020B	Cobalt	0.00034J	mg/L	0.0050	04/02/20 19:13	
EPA 6020B	Lead	0.000051J	mg/L	0.0050	04/02/20 19:13	
EPA 6020B	Lithium	0.0049J	mg/L	0.030	04/02/20 19:13	
EPA 6020B	Molybdenum	0.0020J	mg/L	0.010	04/02/20 19:13	
SM 2540C	Total Dissolved Solids	158	mg/L	10.0	03/30/20 12:58	
EPA 300.0 Rev 2.1 1993	Chloride	1.9	mg/L	1.0	04/02/20 17:30	
EPA 300.0 Rev 2.1 1993	Sulfate	14.3	mg/L	1.0	04/02/20 17:30	
2630435014	YGWC-49					
	Field pH	5.69	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	13.2	mg/L	1.0	03/31/20 20:31	
EPA 6020B	Antimony	0.00053J	mg/L	0.0030	04/02/20 19:19	
EPA 6020B	Arsenic	0.00086J	mg/L	0.0050	04/02/20 19:19	
EPA 6020B	Barium	0.071	mg/L	0.010	04/02/20 19:19	
EPA 6020B	Beryllium	0.00013J	mg/L	0.0030	04/02/20 19:19	
EPA 6020B	Boron	0.012J	mg/L	0.10	04/02/20 19:19	
EPA 6020B	Chromium	0.0019J	mg/L	0.010	04/02/20 19:19	
EPA 6020B	Lead	0.000059J	mg/L	0.0050	04/02/20 19:19	
EPA 6020B	Lithium	0.0037J	mg/L	0.030	04/02/20 19:19	
EPA 6020B	Selenium	0.0085J	mg/L	0.010	04/02/20 19:19	
SM 2540C	Total Dissolved Solids	130	mg/L	10.0	03/30/20 12:58	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	04/02/20 17:45	
EPA 300.0 Rev 2.1 1993	Sulfate	76.1	mg/L	1.0	04/02/20 17:45	
2630435015	FB-2-3-25-20					
EPA 6020B	Arsenic	0.00053J	mg/L	0.0050	04/02/20 19:24	
EPA 6020B	Boron	0.0054J	mg/L	0.10	04/02/20 19:24	
EPA 6020B	Chromium	0.00051J	mg/L	0.010	04/02/20 19:24	
SM 2540C	Total Dissolved Solids	43.0	mg/L	10.0	03/30/20 12:58	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630435016	YGWA-18S					
	Field pH	5.33	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	1.0	mg/L	1.0	03/31/20 16:58	
EPA 6020B	Barium	0.017	mg/L	0.010	04/02/20 20:01	
EPA 6020B	Beryllium	0.000089J	mg/L	0.0030	04/02/20 20:01	
EPA 6020B	Boron	0.010J	mg/L	0.10	04/02/20 20:01	
EPA 6020B	Chromium	0.0011J	mg/L	0.010	04/02/20 20:01	
EPA 6020B	Lead	0.000054J	mg/L	0.0050	04/02/20 20:01	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	04/02/20 20:01	
SM 2540C	Total Dissolved Solids	59.0	mg/L	10.0	03/26/20 15:32	
EPA 300.0 Rev 2.1 1993	Chloride	6.8	mg/L	1.0	04/02/20 22:54	
EPA 300.0 Rev 2.1 1993	Sulfate	0.99J	mg/L	1.0	04/02/20 22:54	
2630435017	YGWA-18I					
	Field pH	5.98	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	5.3	mg/L	1.0	03/31/20 17:17	
EPA 6020B	Barium	0.021	mg/L	0.010	04/02/20 20:06	
EPA 6020B	Boron	0.0054J	mg/L	0.10	04/02/20 20:06	
EPA 6020B	Chromium	0.00095J	mg/L	0.010	04/02/20 20:06	
EPA 6020B	Lead	0.000071J	mg/L	0.0050	04/02/20 20:06	
EPA 6020B	Lithium	0.0033J	mg/L	0.030	04/02/20 20:06	
SM 2540C	Total Dissolved Solids	91.0	mg/L	10.0	03/26/20 15:32	
EPA 300.0 Rev 2.1 1993	Chloride	7.0	mg/L	1.0	04/02/20 23:08	
2630435018	FB-1-3-24-20					
EPA 6020B	Chromium	0.00062J	mg/L	0.010	04/02/20 20:12	
2630435019	YGWA-4I					
	Field pH	6.26	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	10.5	mg/L	1.0	04/02/20 14:53	
EPA 6020B	Barium	0.016	mg/L	0.010	04/03/20 15:09	
EPA 6020B	Boron	0.011J	mg/L	0.10	04/03/20 15:09	
EPA 6020B	Chromium	0.00058J	mg/L	0.010	04/03/20 15:09	
EPA 6020B	Cobalt	0.00056J	mg/L	0.0050	04/03/20 15:09	
EPA 6020B	Lithium	0.014J	mg/L	0.030	04/03/20 15:09	
SM 2540C	Total Dissolved Solids	146	mg/L	10.0	04/01/20 14:48	
EPA 300.0 Rev 2.1 1993	Chloride	3.9	mg/L	1.0	04/02/20 22:06	
EPA 300.0 Rev 2.1 1993	Sulfate	8.8	mg/L	1.0	04/02/20 22:06	
2630435020	YGWC-38					
	Field pH	4.89	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	124	mg/L	1.0	04/02/20 14:57	
EPA 6020B	Antimony	0.00063J	mg/L	0.0030	04/03/20 16:07	
EPA 6020B	Arsenic	0.00068J	mg/L	0.0050	04/03/20 16:07	
EPA 6020B	Barium	0.018	mg/L	0.010	04/03/20 16:07	
EPA 6020B	Beryllium	0.0038	mg/L	0.0030	04/03/20 16:07	
EPA 6020B	Boron	9.3	mg/L	0.10	04/03/20 16:07	
EPA 6020B	Cadmium	0.0018J	mg/L	0.0025	04/03/20 16:07	
EPA 6020B	Chromium	0.00065J	mg/L	0.010	04/03/20 16:07	
EPA 6020B	Lithium	0.0081J	mg/L	0.030	04/03/20 16:07	

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SUMMARY OF DETECTION

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630435020	YGWC-38					
EPA 6020B	Selenium	0.099	mg/L	0.010	04/03/20 16:07	
SM 2540C	Total Dissolved Solids	883	mg/L	10.0	04/01/20 14:49	
EPA 300.0 Rev 2.1 1993	Chloride	4.0	mg/L	1.0	04/02/20 22:21	
EPA 300.0 Rev 2.1 1993	Sulfate	483	mg/L	10.0	04/03/20 11:02	
2630435021	YGWC-41					
	Field pH	4.87	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	29.6	mg/L	1.0	04/02/20 15:00	
EPA 6020B	Arsenic	0.0010J	mg/L	0.0050	04/03/20 16:13	
EPA 6020B	Barium	0.021	mg/L	0.010	04/03/20 16:13	
EPA 6020B	Beryllium	0.0026J	mg/L	0.0030	04/03/20 16:13	
EPA 6020B	Boron	7.9	mg/L	0.10	04/03/20 16:13	
EPA 6020B	Cadmium	0.00018J	mg/L	0.0025	04/03/20 16:13	
EPA 6020B	Chromium	0.00039J	mg/L	0.010	04/03/20 16:13	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	04/03/20 16:13	
EPA 6020B	Selenium	0.057	mg/L	0.010	04/03/20 16:13	
SM 2540C	Total Dissolved Solids	428	mg/L	10.0	04/01/20 14:49	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	04/02/20 22:35	
EPA 300.0 Rev 2.1 1993	Sulfate	214	mg/L	5.0	04/03/20 11:17	
2630435022	YGWC-42					
	Field pH	5.53	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	107	mg/L	1.0	04/02/20 16:08	M1
EPA 6020B	Arsenic	0.0013J	mg/L	0.0050	04/03/20 16:19	
EPA 6020B	Barium	0.030	mg/L	0.010	04/03/20 16:19	
EPA 6020B	Boron	15.5	mg/L	1.0	04/07/20 13:42	
EPA 6020B	Cadmium	0.00021J	mg/L	0.0025	04/03/20 16:19	
EPA 6020B	Chromium	0.0013J	mg/L	0.010	04/03/20 16:19	
EPA 6020B	Cobalt	0.0018J	mg/L	0.0050	04/03/20 16:19	
EPA 6020B	Lead	0.000047J	mg/L	0.0050	04/03/20 16:19	
EPA 6020B	Lithium	0.045	mg/L	0.030	04/03/20 16:19	
EPA 6020B	Selenium	0.046	mg/L	0.010	04/03/20 16:19	
SM 2540C	Total Dissolved Solids	1200	mg/L	10.0	04/01/20 15:09	
EPA 300.0 Rev 2.1 1993	Chloride	3.2	mg/L	1.0	04/02/20 22:50	
EPA 300.0 Rev 2.1 1993	Sulfate	642	mg/L	13.0	04/03/20 11:31	
2630435023	YGWC-23S					
	Field pH	5.69	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	5.6	mg/L	1.0	04/02/20 16:22	
EPA 6020B	Arsenic	0.0012J	mg/L	0.0050	04/03/20 16:25	
EPA 6020B	Barium	0.027	mg/L	0.010	04/03/20 16:25	
EPA 6020B	Beryllium	0.000090J	mg/L	0.0030	04/03/20 16:25	
EPA 6020B	Boron	0.94	mg/L	0.10	04/03/20 16:25	
EPA 6020B	Chromium	0.0019J	mg/L	0.010	04/03/20 16:25	
EPA 6020B	Lithium	0.0021J	mg/L	0.030	04/03/20 16:25	
EPA 6020B	Selenium	0.024	mg/L	0.010	04/03/20 16:25	
SM 2540C	Total Dissolved Solids	110	mg/L	10.0	04/01/20 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	1.6	mg/L	1.0	04/02/20 23:04	
EPA 300.0 Rev 2.1 1993	Sulfate	36.5	mg/L	1.0	04/02/20 23:04	

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SUMMARY OF DETECTION

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630435024	YGWC-24S					
	Field pH	5.51	Std. Units		03/30/20 09:51	
EPA 6010D	Calcium	1.7	mg/L	1.0	04/02/20 16:36	
EPA 6020B	Arsenic	0.0015J	mg/L	0.0050	04/03/20 16:30	
EPA 6020B	Barium	0.019	mg/L	0.010	04/03/20 16:30	
EPA 6020B	Beryllium	0.00016J	mg/L	0.0030	04/03/20 16:30	
EPA 6020B	Boron	0.033J	mg/L	0.10	04/03/20 16:30	
EPA 6020B	Chromium	0.00094J	mg/L	0.010	04/03/20 16:30	
EPA 6020B	Lead	0.000053J	mg/L	0.0050	04/03/20 16:30	
SM 2540C	Total Dissolved Solids	67.0	mg/L	10.0	04/01/20 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	04/02/20 23:48	
2630435025	EB-2-3-25-20					
EPA 6020B	Thallium	0.000076J	mg/L	0.0010	04/02/20 20:41	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-5I		Lab ID: 2630435001		Collected: 03/24/20 14:14		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.81	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	2.5	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 19:38	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 18:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 18:41	7440-38-2	
Barium	0.021	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 18:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 18:41	7440-41-7	
Boron	0.0068J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 18:41	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 18:41	7440-43-9	
Chromium	0.0014J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 18:41	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 18:41	7440-48-4	
Lead	0.000068J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 18:41	7439-92-1	
Lithium	0.0033J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 18:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 18:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 18:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 18:41	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	68.0	mg/L	10.0	10.0	1		03/26/20 15:32		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.3	mg/L	1.0	0.60	1		04/03/20 02:25	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 02:25	16984-48-8	
Sulfate	2.1	mg/L	1.0	0.50	1		04/03/20 02:25	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-5D		Lab ID: 2630435002		Collected: 03/24/20 12:04		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.34	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	26.1	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 19:41	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 18:46	7440-36-0	
Arsenic	0.00065J	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 18:46	7440-38-2	
Barium	0.0076J	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 18:46	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 18:46	7440-41-7	
Boron	0.011J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 18:46	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 18:46	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 18:46	7440-47-3	
Cobalt	0.00035J	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 18:46	7440-48-4	
Lead	0.000054J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 18:46	7439-92-1	
Lithium	0.0064J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 18:46	7439-93-2	
Molybdenum	0.0011J	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 18:46	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 18:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 18:46	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	139	mg/L	10.0	10.0	1		03/26/20 15:32		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.5	mg/L	1.0	0.60	1		04/03/20 02:39	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 02:39	16984-48-8	
Sulfate	5.9	mg/L	1.0	0.50	1		04/03/20 02:39	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-17S		Lab ID: 2630435003		Collected: 03/24/20 10:40		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.57	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	2.7	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 19:45	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 18:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 18:52	7440-38-2	
Barium	0.015	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 18:52	7440-39-3	
Beryllium	0.000080J	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 18:52	7440-41-7	
Boron	0.0092J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 18:52	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 18:52	7440-43-9	
Chromium	0.00087J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 18:52	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 18:52	7440-48-4	
Lead	0.000064J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 18:52	7439-92-1	
Lithium	0.0034J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 18:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 18:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 18:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 18:52	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	71.0	mg/L	10.0	10.0	1		03/26/20 15:32		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.0	mg/L	1.0	0.60	1		04/03/20 03:35	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 03:35	16984-48-8	
Sulfate	5.4	mg/L	1.0	0.50	1		04/03/20 03:35	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-20S		Lab ID: 2630435004		Collected: 03/24/20 11:40		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.86	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	2.6	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 19:49	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 18:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 18:58	7440-38-2	
Barium	0.015	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 18:58	7440-39-3	
Beryllium	0.000076J	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 18:58	7440-41-7	
Boron	ND	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 18:58	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 18:58	7440-43-9	
Chromium	0.00077J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 18:58	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 18:58	7440-48-4	
Lead	0.00011J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 18:58	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 18:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 18:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 18:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 18:58	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	76.0	mg/L	10.0	10.0	1		03/26/20 15:33		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.7	mg/L	1.0	0.60	1		04/03/20 03:49	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 03:49	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/03/20 03:49	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-211		Lab ID: 2630435005		Collected: 03/24/20 12:55		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.35	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	6.0	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 19:52	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.0017J	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 19:04	7440-36-0	
Arsenic	0.0013J	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 19:04	7440-38-2	
Barium	0.011	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 19:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 19:04	7440-41-7	
Boron	0.016J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 19:04	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 19:04	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 19:04	7440-47-3	
Cobalt	0.0061	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 19:04	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 19:04	7439-92-1	
Lithium	0.0064J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 19:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 19:04	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 19:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 19:04	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	117	mg/L	10.0	10.0	1		03/26/20 15:33		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.8	mg/L	1.0	0.60	1		04/03/20 04:03	16887-00-6	
Fluoride	0.081J	mg/L	0.30	0.050	1		04/03/20 04:03	16984-48-8	
Sulfate	3.0	mg/L	1.0	0.50	1		04/03/20 04:03	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-40		Lab ID: 2630435006		Collected: 03/24/20 14:26		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.29	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	4.8	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 19:56	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 19:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 19:09	7440-38-2	
Barium	0.033	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 19:09	7440-39-3	
Beryllium	0.00022J	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 19:09	7440-41-7	
Boron	0.088J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 19:09	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 19:09	7440-43-9	
Chromium	0.00055J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 19:09	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 19:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 19:09	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 19:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 19:09	7439-98-7	
Selenium	0.0020J	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 19:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 19:09	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	84.0	mg/L	10.0	10.0	1		03/26/20 15:33		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.7	mg/L	1.0	0.60	1		04/03/20 04:17	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 04:17	16984-48-8	
Sulfate	25.2	mg/L	1.0	0.50	1		04/03/20 04:17	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: EB-1-3-24-20		Lab ID: 2630435007		Collected: 03/24/20 14:10		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	0.22J	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 19:59	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 19:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 19:15	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 19:15	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 19:15	7440-41-7	
Boron	ND	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 19:15	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 19:15	7440-43-9	
Chromium	0.00047J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 19:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 19:15	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 19:15	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 19:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 19:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 19:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 19:15	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/26/20 15:33		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		04/03/20 04:31	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 04:31	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/03/20 04:31	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: DUP-1		Lab ID: 2630435008		Collected: 03/24/20 00:00		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA							
Calcium	2.4	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:09	7440-70-2	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA							
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 19:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 19:21	7440-38-2	
Barium	0.020	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 19:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 19:21	7440-41-7	
Boron	0.0056J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 19:21	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 19:21	7440-43-9	
Chromium	0.00092J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 19:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 19:21	7440-48-4	
Lead	0.000062J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 19:21	7439-92-1	
Lithium	0.0033J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 19:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 19:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 19:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 19:21	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA							
Total Dissolved Solids	113	mg/L	10.0	10.0	1		03/30/20 12:54		D6
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	4.3	mg/L	1.0	0.60	1		04/03/20 04:45	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 04:45	16984-48-8	
Sulfate	2.2	mg/L	1.0	0.50	1		04/03/20 04:45	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-33S		Lab ID: 2630435009		Collected: 03/25/20 12:47		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	3.86	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	97.8	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:13	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 19:26	7440-36-0	
Arsenic	0.0030J	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 19:26	7440-38-2	
Barium	0.012	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 19:26	7440-39-3	
Beryllium	0.017	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 19:26	7440-41-7	
Boron	5.3	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 19:26	7440-42-8	
Cadmium	0.0020J	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 19:26	7440-43-9	
Chromium	0.0012J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 19:26	7440-47-3	
Cobalt	0.020	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 19:26	7440-48-4	
Lead	0.00083J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 19:26	7439-92-1	
Lithium	0.029J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 19:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 19:26	7439-98-7	
Selenium	0.022	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 19:26	7782-49-2	
Thallium	0.00015J	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 19:26	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	839	mg/L	10.0	10.0	1		03/30/20 12:57		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.8	mg/L	1.0	0.60	1		04/02/20 16:03	16887-00-6	
Fluoride	0.25J	mg/L	0.30	0.050	1		04/02/20 16:03	16984-48-8	M1
Sulfate	448	mg/L	9.0	4.5	9		04/03/20 07:17	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-36		Lab ID: 2630435010		Collected: 03/25/20 12:45		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.49	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	10.6	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:17	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.0011J	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 19:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 19:44	7440-38-2	
Barium	0.025	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 19:44	7440-39-3	
Beryllium	0.00022J	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 19:44	7440-41-7	
Boron	0.11	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 19:44	7440-42-8	
Cadmium	0.00019J	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 19:44	7440-43-9	
Chromium	0.00074J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 19:44	7440-47-3	
Cobalt	0.00038J	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 19:44	7440-48-4	
Lead	0.00010J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 19:44	7439-92-1	
Lithium	0.0032J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 19:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 19:44	7439-98-7	
Selenium	0.0024J	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 19:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 19:44	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	164	mg/L	10.0	10.0	1		03/30/20 12:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	6.3	mg/L	1.0	0.60	1		04/02/20 16:47	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 16:47	16984-48-8	
Sulfate	58.8	mg/L	1.0	0.50	1		04/02/20 16:47	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: DUP-2		Lab ID: 2630435011		Collected: 03/25/20 00:00		Received: 03/25/20 16:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	10.6	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:20	7440-70-2		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.0011J	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 19:49	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 19:49	7440-38-2		
Barium	0.026	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 19:49	7440-39-3		
Beryllium	0.00021J	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 19:49	7440-41-7		
Boron	0.11	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 19:49	7440-42-8		
Cadmium	0.00015J	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 19:49	7440-43-9		
Chromium	0.00046J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 19:49	7440-47-3		
Cobalt	0.00037J	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 19:49	7440-48-4		
Lead	0.00010J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 19:49	7439-92-1		
Lithium	0.0032J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 19:49	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 19:49	7439-98-7		
Selenium	0.0022J	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 19:49	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 19:49	7440-28-0		
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	184	mg/L	10.0	10.0	1		03/30/20 12:58			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	6.2	mg/L	1.0	0.60	1		04/02/20 17:01	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 17:01	16984-48-8		
Sulfate	58.0	mg/L	1.0	0.50	1		04/02/20 17:01	14808-79-8		

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-43		Lab ID: 2630435012		Collected: 03/25/20 11:23		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.79	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	12.1	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:24	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.00031J	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 18:50	7440-36-0	
Arsenic	0.00070J	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 18:50	7440-38-2	
Barium	0.033	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 18:50	7440-39-3	
Beryllium	0.00034J	mg/L	0.0030	0.000074	1	03/31/20 21:03	04/02/20 18:50	7440-41-7	
Boron	2.4	mg/L	0.10	0.0049	1	03/31/20 21:03	04/02/20 18:50	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:03	04/02/20 18:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 18:50	7440-47-3	
Cobalt	0.0016J	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 18:50	7440-48-4	
Lead	0.000075J	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 18:50	7439-92-1	
Lithium	0.016J	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 18:50	7439-93-2	
Molybdenum	0.0015J	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 18:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 18:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 18:50	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	352	mg/L	10.0	10.0	1		03/30/20 12:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.8	mg/L	1.0	0.60	1		04/02/20 17:16	16887-00-6	
Fluoride	0.073J	mg/L	0.30	0.050	1		04/02/20 17:16	16984-48-8	
Sulfate	164	mg/L	3.0	1.5	3		04/03/20 08:01	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-39		Lab ID: 2630435013		Collected: 03/25/20 10:05		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.78	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	2.7	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:27	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.0014J	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 19:13	7440-36-0	
Arsenic	0.0012J	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 19:13	7440-38-2	
Barium	0.014	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 19:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/31/20 21:03	04/02/20 19:13	7440-41-7	
Boron	0.043J	mg/L	0.10	0.0049	1	03/31/20 21:03	04/02/20 19:13	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:03	04/02/20 19:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 19:13	7440-47-3	
Cobalt	0.00034J	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 19:13	7440-48-4	
Lead	0.000051J	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 19:13	7439-92-1	
Lithium	0.0049J	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 19:13	7439-93-2	
Molybdenum	0.0020J	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 19:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 19:13	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	158	mg/L	10.0	10.0	1		03/30/20 12:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.9	mg/L	1.0	0.60	1		04/02/20 17:30	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 17:30	16984-48-8	
Sulfate	14.3	mg/L	1.0	0.50	1		04/02/20 17:30	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-49 Lab ID: 2630435014 Collected: 03/25/20 14:17 Received: 03/25/20 16:15 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.69	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	13.2	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:31	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.00053J	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 19:19	7440-36-0	
Arsenic	0.00086J	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 19:19	7440-38-2	
Barium	0.071	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 19:19	7440-39-3	
Beryllium	0.00013J	mg/L	0.0030	0.000074	1	03/31/20 21:03	04/02/20 19:19	7440-41-7	
Boron	0.012J	mg/L	0.10	0.0049	1	03/31/20 21:03	04/02/20 19:19	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:03	04/02/20 19:19	7440-43-9	
Chromium	0.0019J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 19:19	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 19:19	7440-48-4	
Lead	0.000059J	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 19:19	7439-92-1	
Lithium	0.0037J	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 19:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 19:19	7439-98-7	
Selenium	0.0085J	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 19:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 19:19	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	130	mg/L	10.0	10.0	1		03/30/20 12:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.1	mg/L	1.0	0.60	1		04/02/20 17:45	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 17:45	16984-48-8	
Sulfate	76.1	mg/L	1.0	0.50	1		04/02/20 17:45	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: FB-2-3-25-20		Lab ID: 2630435015		Collected: 03/25/20 14:00		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	ND	mg/L	1.0	0.14	1	03/30/20 21:21	03/31/20 20:34	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 19:24	7440-36-0	
Arsenic	0.00053J	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 19:24	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 19:24	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/31/20 21:03	04/02/20 19:24	7440-41-7	
Boron	0.0054J	mg/L	0.10	0.0049	1	03/31/20 21:03	04/02/20 19:24	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:03	04/02/20 19:24	7440-43-9	
Chromium	0.00051J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 19:24	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 19:24	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 19:24	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 19:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 19:24	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 19:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 19:24	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	43.0	mg/L	10.0	10.0	1		03/30/20 12:58		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		04/02/20 18:43	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 18:43	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/02/20 18:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Sample: YGWA-18S		Lab ID: 2630435016		Collected: 03/24/20 14:30		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.33	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	1.0	mg/L	1.0	0.14	1	03/30/20 21:31	03/31/20 16:58	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 20:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 20:01	7440-38-2	
Barium	0.017	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 20:01	7440-39-3	
Beryllium	0.000089J	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 20:01	7440-41-7	
Boron	0.010J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 20:01	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 20:01	7440-43-9	
Chromium	0.0011J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 20:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 20:01	7440-48-4	
Lead	0.000054J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 20:01	7439-92-1	
Lithium	0.0035J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 20:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 20:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 20:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 20:01	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	59.0	mg/L	10.0	10.0	1		03/26/20 15:32		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	6.8	mg/L	1.0	0.60	1		04/02/20 22:54	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 22:54	16984-48-8	
Sulfate	0.99J	mg/L	1.0	0.50	1		04/02/20 22:54	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-181		Lab ID: 2630435017		Collected: 03/24/20 12:10		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.98	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	5.3	mg/L	1.0	0.14	1	03/30/20 21:31	03/31/20 17:17	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 20:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 20:06	7440-38-2	
Barium	0.021	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 20:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 20:06	7440-41-7	
Boron	0.0054J	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 20:06	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 20:06	7440-43-9	
Chromium	0.00095J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 20:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 20:06	7440-48-4	
Lead	0.000071J	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 20:06	7439-92-1	
Lithium	0.0033J	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 20:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 20:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 20:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 20:06	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	91.0	mg/L	10.0	10.0	1		03/26/20 15:32		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	7.0	mg/L	1.0	0.60	1		04/02/20 23:08	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 23:08	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/02/20 23:08	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: FB-1-3-24-20		Lab ID: 2630435018		Collected: 03/24/20 12:20		Received: 03/25/20 16:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	ND	mg/L	1.0	0.14	1	03/30/20 21:31	03/31/20 17:21	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/30/20 21:06	04/02/20 20:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/30/20 21:06	04/02/20 20:12	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/30/20 21:06	04/02/20 20:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/30/20 21:06	04/02/20 20:12	7440-41-7	
Boron	ND	mg/L	0.10	0.0049	1	03/30/20 21:06	04/02/20 20:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/30/20 21:06	04/02/20 20:12	7440-43-9	
Chromium	0.00062J	mg/L	0.010	0.00039	1	03/30/20 21:06	04/02/20 20:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/30/20 21:06	04/02/20 20:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/30/20 21:06	04/02/20 20:12	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/30/20 21:06	04/02/20 20:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/30/20 21:06	04/02/20 20:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/30/20 21:06	04/02/20 20:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/30/20 21:06	04/02/20 20:12	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/26/20 15:32		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		04/02/20 23:22	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 23:22	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/02/20 23:22	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWA-4I		Lab ID: 2630435019		Collected: 03/25/20 10:26		Received: 03/26/20 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.26	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	10.5	mg/L	1.0	0.14	1	03/31/20 20:57	04/02/20 14:53	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:07	04/03/20 15:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:07	04/03/20 15:09	7440-38-2	
Barium	0.016	mg/L	0.010	0.00049	1	03/31/20 21:07	04/03/20 15:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/31/20 21:07	04/03/20 15:09	7440-41-7	
Boron	0.011J	mg/L	0.10	0.0049	1	03/31/20 21:07	04/03/20 15:09	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:07	04/03/20 15:09	7440-43-9	
Chromium	0.00058J	mg/L	0.010	0.00039	1	03/31/20 21:07	04/03/20 15:09	7440-47-3	
Cobalt	0.00056J	mg/L	0.0050	0.00030	1	03/31/20 21:07	04/03/20 15:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:07	04/03/20 15:09	7439-92-1	
Lithium	0.014J	mg/L	0.030	0.00078	1	03/31/20 21:07	04/03/20 15:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:07	04/03/20 15:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:07	04/03/20 15:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:07	04/03/20 15:09	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	146	mg/L	10.0	10.0	1		04/01/20 14:48		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.9	mg/L	1.0	0.60	1		04/02/20 22:06	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 22:06	16984-48-8	
Sulfate	8.8	mg/L	1.0	0.50	1		04/02/20 22:06	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-38		Lab ID: 2630435020		Collected: 03/25/20 15:25		Received: 03/26/20 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.89	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	124	mg/L	1.0	0.14	1	03/31/20 20:57	04/02/20 14:57	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.00063J	mg/L	0.0030	0.00027	1	03/31/20 21:07	04/03/20 16:07	7440-36-0	
Arsenic	0.00068J	mg/L	0.0050	0.00035	1	03/31/20 21:07	04/03/20 16:07	7440-38-2	
Barium	0.018	mg/L	0.010	0.00049	1	03/31/20 21:07	04/03/20 16:07	7440-39-3	
Beryllium	0.0038	mg/L	0.0030	0.000074	1	03/31/20 21:07	04/03/20 16:07	7440-41-7	
Boron	9.3	mg/L	0.10	0.0049	1	03/31/20 21:07	04/03/20 16:07	7440-42-8	
Cadmium	0.0018J	mg/L	0.0025	0.00011	1	03/31/20 21:07	04/03/20 16:07	7440-43-9	
Chromium	0.00065J	mg/L	0.010	0.00039	1	03/31/20 21:07	04/03/20 16:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:07	04/03/20 16:07	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:07	04/03/20 16:07	7439-92-1	
Lithium	0.0081J	mg/L	0.030	0.00078	1	03/31/20 21:07	04/03/20 16:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:07	04/03/20 16:07	7439-98-7	
Selenium	0.099	mg/L	0.010	0.0013	1	03/31/20 21:07	04/03/20 16:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:07	04/03/20 16:07	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	883	mg/L	10.0	10.0	1		04/01/20 14:49		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.0	mg/L	1.0	0.60	1		04/02/20 22:21	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 22:21	16984-48-8	
Sulfate	483	mg/L	10.0	5.0	10		04/03/20 11:02	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-41		Lab ID: 2630435021		Collected: 03/25/20 14:00		Received: 03/26/20 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.87	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	29.6	mg/L	1.0	0.14	1	03/31/20 20:57	04/02/20 15:00	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:07	04/03/20 16:13	7440-36-0	
Arsenic	0.0010J	mg/L	0.0050	0.00035	1	03/31/20 21:07	04/03/20 16:13	7440-38-2	
Barium	0.021	mg/L	0.010	0.00049	1	03/31/20 21:07	04/03/20 16:13	7440-39-3	
Beryllium	0.0026J	mg/L	0.0030	0.000074	1	03/31/20 21:07	04/03/20 16:13	7440-41-7	
Boron	7.9	mg/L	0.10	0.0049	1	03/31/20 21:07	04/03/20 16:13	7440-42-8	
Cadmium	0.00018J	mg/L	0.0025	0.00011	1	03/31/20 21:07	04/03/20 16:13	7440-43-9	
Chromium	0.00039J	mg/L	0.010	0.00039	1	03/31/20 21:07	04/03/20 16:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:07	04/03/20 16:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:07	04/03/20 16:13	7439-92-1	
Lithium	0.0029J	mg/L	0.030	0.00078	1	03/31/20 21:07	04/03/20 16:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:07	04/03/20 16:13	7439-98-7	
Selenium	0.057	mg/L	0.010	0.0013	1	03/31/20 21:07	04/03/20 16:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:07	04/03/20 16:13	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	428	mg/L	10.0	10.0	1		04/01/20 14:49		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.7	mg/L	1.0	0.60	1		04/02/20 22:35	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 22:35	16984-48-8	
Sulfate	214	mg/L	5.0	2.5	5		04/03/20 11:17	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-42		Lab ID: 2630435022		Collected: 03/25/20 10:50		Received: 03/26/20 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.53	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	107	mg/L	1.0	0.14	1	04/01/20 15:36	04/02/20 16:08	7440-70-2	M1
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:07	04/03/20 16:19	7440-36-0	
Arsenic	0.0013J	mg/L	0.0050	0.00035	1	03/31/20 21:07	04/03/20 16:19	7440-38-2	
Barium	0.030	mg/L	0.010	0.00049	1	03/31/20 21:07	04/03/20 16:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/31/20 21:07	04/03/20 16:19	7440-41-7	
Boron	15.5	mg/L	1.0	0.049	10	03/31/20 21:07	04/07/20 13:42	7440-42-8	
Cadmium	0.00021J	mg/L	0.0025	0.00011	1	03/31/20 21:07	04/03/20 16:19	7440-43-9	
Chromium	0.0013J	mg/L	0.010	0.00039	1	03/31/20 21:07	04/03/20 16:19	7440-47-3	
Cobalt	0.0018J	mg/L	0.0050	0.00030	1	03/31/20 21:07	04/03/20 16:19	7440-48-4	
Lead	0.000047J	mg/L	0.0050	0.000046	1	03/31/20 21:07	04/03/20 16:19	7439-92-1	
Lithium	0.045	mg/L	0.030	0.00078	1	03/31/20 21:07	04/03/20 16:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:07	04/03/20 16:19	7439-98-7	
Selenium	0.046	mg/L	0.010	0.0013	1	03/31/20 21:07	04/03/20 16:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:07	04/03/20 16:19	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	1200	mg/L	10.0	10.0	1		04/01/20 15:09		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.2	mg/L	1.0	0.60	1		04/02/20 22:50	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 22:50	16984-48-8	
Sulfate	642	mg/L	13.0	6.5	13		04/03/20 11:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Sample: YGWC-23S		Lab ID: 2630435023		Collected: 03/26/20 11:03		Received: 03/26/20 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.69	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	5.6	mg/L	1.0	0.14	1	04/01/20 15:36	04/02/20 16:22	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:07	04/03/20 16:25	7440-36-0	
Arsenic	0.0012J	mg/L	0.0050	0.00035	1	03/31/20 21:07	04/03/20 16:25	7440-38-2	
Barium	0.027	mg/L	0.010	0.00049	1	03/31/20 21:07	04/03/20 16:25	7440-39-3	
Beryllium	0.000090J	mg/L	0.0030	0.000074	1	03/31/20 21:07	04/03/20 16:25	7440-41-7	
Boron	0.94	mg/L	0.10	0.0049	1	03/31/20 21:07	04/03/20 16:25	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:07	04/03/20 16:25	7440-43-9	
Chromium	0.0019J	mg/L	0.010	0.00039	1	03/31/20 21:07	04/03/20 16:25	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:07	04/03/20 16:25	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:07	04/03/20 16:25	7439-92-1	
Lithium	0.0021J	mg/L	0.030	0.00078	1	03/31/20 21:07	04/03/20 16:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:07	04/03/20 16:25	7439-98-7	
Selenium	0.024	mg/L	0.010	0.0013	1	03/31/20 21:07	04/03/20 16:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:07	04/03/20 16:25	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	110	mg/L	10.0	10.0	1		04/01/20 15:10		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.6	mg/L	1.0	0.60	1		04/02/20 23:04	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 23:04	16984-48-8	
Sulfate	36.5	mg/L	1.0	0.50	1		04/02/20 23:04	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Sample: YGWC-24S		Lab ID: 2630435024		Collected: 03/26/20 12:18		Received: 03/26/20 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.51	Std. Units			1		03/30/20 09:51		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	1.7	mg/L	1.0	0.14	1	04/01/20 15:36	04/02/20 16:36	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:07	04/03/20 16:30	7440-36-0	
Arsenic	0.0015J	mg/L	0.0050	0.00035	1	03/31/20 21:07	04/03/20 16:30	7440-38-2	
Barium	0.019	mg/L	0.010	0.00049	1	03/31/20 21:07	04/03/20 16:30	7440-39-3	
Beryllium	0.00016J	mg/L	0.0030	0.000074	1	03/31/20 21:07	04/03/20 16:30	7440-41-7	
Boron	0.033J	mg/L	0.10	0.0049	1	03/31/20 21:07	04/03/20 16:30	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:07	04/03/20 16:30	7440-43-9	
Chromium	0.00094J	mg/L	0.010	0.00039	1	03/31/20 21:07	04/03/20 16:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:07	04/03/20 16:30	7440-48-4	
Lead	0.000053J	mg/L	0.0050	0.000046	1	03/31/20 21:07	04/03/20 16:30	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:07	04/03/20 16:30	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:07	04/03/20 16:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:07	04/03/20 16:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:07	04/03/20 16:30	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	67.0	mg/L	10.0	10.0	1		04/01/20 15:10		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.4	mg/L	1.0	0.60	1		04/02/20 23:48	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 23:48	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/02/20 23:48	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Sample: EB-2-3-25-20		Lab ID: 2630435025		Collected: 03/25/20 14:25		Received: 03/26/20 15:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	ND	mg/L	1.0	0.14	1	04/01/20 15:36	04/02/20 16:39	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 20:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 20:41	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 20:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 15:40	04/02/20 20:41	7440-41-7	
Boron	ND	mg/L	0.10	0.0049	1	04/01/20 15:40	04/02/20 20:41	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 15:40	04/02/20 20:41	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 20:41	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 20:41	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 20:41	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 20:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 20:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 20:41	7782-49-2	
Thallium	0.000076J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 20:41	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		04/01/20 15:10		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		04/03/20 01:15	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 01:15	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/03/20 01:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 45066 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630435016, 2630435017, 2630435018

METHOD BLANK: 207564 Matrix: Water
Associated Lab Samples: 2630435016, 2630435017, 2630435018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/31/20 16:27	

LABORATORY CONTROL SAMPLE: 207565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207566 207567

Parameter	Units	2630414002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	68.0	1	1	69.5	67.6	149	-41	75-125	3	20	M1

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch:	45067	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D MET
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015

METHOD BLANK: 207568 Matrix: Water
Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/03/20 16:58	

LABORATORY CONTROL SAMPLE: 207569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207570 207571

Parameter	Units	2630417001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	81.2	1	1	81.9	81.9	68	67	75-125	0	20	M1

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

QC Batch: 45121	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D MET
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435019, 2630435020, 2630435021

METHOD BLANK: 207982 Matrix: Water

Associated Lab Samples: 2630435019, 2630435020, 2630435021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/02/20 13:05	

LABORATORY CONTROL SAMPLE: 207983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207984 207985

Parameter	Units	207984		207985		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2630449007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	157	1	1	158	157	93	15	75-125	0	20 M1

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 45172 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435022, 2630435023, 2630435024, 2630435025

METHOD BLANK: 208108 Matrix: Water
Associated Lab Samples: 2630435022, 2630435023, 2630435024, 2630435025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/02/20 16:01	

LABORATORY CONTROL SAMPLE: 208109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208110 208111

Parameter	Units	2630435022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	107	1	1	110	108	372	91	75-125	3	20	M1

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 45065 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435016, 2630435017, 2630435018

METHOD BLANK: 207560 Matrix: Water
Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435016, 2630435017, 2630435018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 17:16	
Arsenic	mg/L	ND	0.0050	0.00035	04/02/20 17:16	
Barium	mg/L	ND	0.010	0.00049	04/02/20 17:16	
Beryllium	mg/L	ND	0.0030	0.000074	04/02/20 17:16	
Boron	mg/L	ND	0.10	0.0049	04/02/20 17:16	
Cadmium	mg/L	ND	0.0025	0.00011	04/02/20 17:16	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 17:16	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 17:16	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 17:16	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 17:16	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 17:16	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 17:16	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 17:16	

LABORATORY CONTROL SAMPLE: 207561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.10	104	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	104	80-120	
Lead	mg/L	0.1	0.10	103	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207562 207563

Parameter	Units	2630414001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	107	104	75-125	2	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Parameter	Units	207562		207563		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2630414001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Arsenic	mg/L	0.00042J	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Barium	mg/L	0.032	0.1	0.1	0.13	0.13	102	101	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Boron	mg/L	0.011J	1	1	1.0	1.0	101	103	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20	
Chromium	mg/L	0.0019J	0.1	0.1	0.11	0.10	104	102	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	3	20	
Lead	mg/L	0.00058J	0.1	0.1	0.10	0.097	99	97	75-125	2	20	
Lithium	mg/L	0.0039J	0.1	0.1	0.10	0.11	101	102	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Thallium	mg/L	0.000089J	0.1	0.1	0.098	0.096	98	96	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 45112 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630435012, 2630435013, 2630435014, 2630435015

METHOD BLANK: 207955 Matrix: Water
Associated Lab Samples: 2630435012, 2630435013, 2630435014, 2630435015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 18:39	
Arsenic	mg/L	ND	0.0050	0.00035	04/02/20 18:39	
Barium	mg/L	ND	0.010	0.00049	04/02/20 18:39	
Beryllium	mg/L	ND	0.0030	0.000074	04/02/20 18:39	
Boron	mg/L	ND	0.10	0.0049	04/02/20 18:39	
Cadmium	mg/L	ND	0.0025	0.00011	04/02/20 18:39	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 18:39	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 18:39	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 18:39	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 18:39	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 18:39	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 18:39	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 18:39	

LABORATORY CONTROL SAMPLE: 207956

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.1	105	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207957 207958

Parameter	Units	2630435012 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	0.00031J	0.1	0.11	0.1	0.11	106	105	75-125	1	20	
Arsenic	mg/L	0.00070J	0.1	0.10	0.1	0.10	99	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Parameter	Units	207957		207958		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Barium	mg/L	0.033	0.1	0.1	0.14	0.13	102	99	75-125	2	20		
Beryllium	mg/L	0.00034J	0.1	0.1	0.096	0.099	95	99	75-125	4	20		
Boron	mg/L	2.4	1	1	3.4	3.4	97	102	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	107	102	75-125	4	20		
Cobalt	mg/L	0.0016J	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Lead	mg/L	0.000075J	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Lithium	mg/L	0.016J	0.1	0.1	0.12	0.12	101	103	75-125	2	20		
Molybdenum	mg/L	0.0015J	0.1	0.1	0.11	0.11	105	104	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	99	100	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	0	20		

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 45113 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630435019, 2630435020, 2630435021, 2630435022, 2630435023, 2630435024

METHOD BLANK: 207961 Matrix: Water
Associated Lab Samples: 2630435019, 2630435020, 2630435021, 2630435022, 2630435023, 2630435024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/03/20 13:05	
Arsenic	mg/L	ND	0.0050	0.00035	04/03/20 13:05	
Barium	mg/L	ND	0.010	0.00049	04/03/20 13:05	
Beryllium	mg/L	ND	0.0030	0.000074	04/03/20 13:05	
Boron	mg/L	ND	0.10	0.0049	04/03/20 13:05	
Cadmium	mg/L	ND	0.0025	0.00011	04/03/20 13:05	
Chromium	mg/L	ND	0.010	0.00039	04/03/20 13:05	
Cobalt	mg/L	ND	0.0050	0.00030	04/03/20 13:05	
Lead	mg/L	ND	0.0050	0.000046	04/03/20 13:05	
Lithium	mg/L	ND	0.030	0.00078	04/03/20 13:05	
Molybdenum	mg/L	ND	0.010	0.00095	04/03/20 13:05	
Selenium	mg/L	ND	0.010	0.0013	04/03/20 13:05	
Thallium	mg/L	ND	0.0010	0.000052	04/03/20 13:05	

LABORATORY CONTROL SAMPLE: 207962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.1	105	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	105	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207963 207964

Parameter	Units	2630472004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	2	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Parameter	Units	207963		207964		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2630472004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.19	0.1	0.1	0.28	0.29	92	97	75-125	2	20		
Beryllium	mg/L	ND	0.1	0.1	0.097	0.094	97	94	75-125	4	20		
Boron	mg/L	0.021J	1	1	1.0	0.99	102	97	75-125	5	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	2	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Lead	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20		
Lithium	mg/L	0.011J	0.1	0.1	0.11	0.10	97	94	75-125	4	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Thallium	mg/L	0.000057J	0.1	0.1	0.099	0.098	99	98	75-125	2	20		

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 45171 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435025

METHOD BLANK: 208104 Matrix: Water
Associated Lab Samples: 2630435025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 20:29	
Arsenic	mg/L	ND	0.0050	0.00035	04/02/20 20:29	
Barium	mg/L	ND	0.010	0.00049	04/02/20 20:29	
Beryllium	mg/L	ND	0.0030	0.000074	04/02/20 20:29	
Boron	mg/L	ND	0.10	0.0049	04/02/20 20:29	
Cadmium	mg/L	ND	0.0025	0.00011	04/02/20 20:29	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 20:29	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 20:29	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 20:29	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 20:29	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 20:29	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 20:29	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 20:29	

LABORATORY CONTROL SAMPLE: 208105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208106 208107

Parameter	Units	2630449011 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	0.00042J	0.1	0.10	0.1	0.10	104	104	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.10	0.1	0.10	101	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Parameter	Units	208106		208107		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2630449011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Barium	mg/L	0.0072J	0.1	0.1	0.11	0.11	101	101	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	
Boron	mg/L	0.24	1	1	1.2	1.2	94	97	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Chromium	mg/L	0.0016J	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.094	0.094	94	93	75-125	0	20	
Lithium	mg/L	0.0031J	0.1	0.1	0.10	0.10	98	97	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.096	0.097	95	96	75-125	2	20	
Thallium	mg/L	0.000085J	0.1	0.1	0.094	0.095	94	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

QC Batch:	44951	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007

LABORATORY CONTROL SAMPLE: 206868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	84-108	

SAMPLE DUPLICATE: 206869

Parameter	Units	2630417001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	278	277	0	10	

SAMPLE DUPLICATE: 206870

Parameter	Units	2630431001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L		60.0			

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

QC Batch:	45027	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435008, 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015

LABORATORY CONTROL SAMPLE: 207416

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	414	104	84-108	

SAMPLE DUPLICATE: 207417

Parameter	Units	2630435008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	113	82.0	32	10	D6

SAMPLE DUPLICATE: 207427

Parameter	Units	2630435009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	839	851	1	10	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

QC Batch:	45079	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435016, 2630435017, 2630435018

LABORATORY CONTROL SAMPLE: 207691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	84-108	

SAMPLE DUPLICATE: 207692

Parameter	Units	2630435016 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	59.0	60.0	2	10	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

QC Batch:	45158	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630435019, 2630435020, 2630435021

LABORATORY CONTROL SAMPLE: 208023

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	370	92	84-108	

SAMPLE DUPLICATE: 208024

Parameter	Units	2630414005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	21.0	ND		10	

SAMPLE DUPLICATE: 208025

Parameter	Units	2630417005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	521	525	1	10	

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 533750 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 2630435016, 2630435017, 2630435018

METHOD BLANK: 2848969 Matrix: Water

Associated Lab Samples: 2630435016, 2630435017, 2630435018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/02/20 17:18	
Fluoride	mg/L	ND	0.10	0.050	04/02/20 17:18	
Sulfate	mg/L	ND	1.0	0.50	04/02/20 17:18	

LABORATORY CONTROL SAMPLE: 2848970

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.5	101	90-110	
Sulfate	mg/L	50	50.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2848971 2848972

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2630325037 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	1670	50	50	1670	1680	-1	8	90-110	0	10	M6	
Fluoride	mg/L	0.056J	2.5	2.5	2.3	2.3	90	90	90-110	0	10		
Sulfate	mg/L	603	50	50	602	604	-2	2	90-110	0	10	M6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2848973 2848974

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2630414001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	3.6	50	50	56.2	56.2	105	105	90-110	0	10		
Fluoride	mg/L	0.076J	2.5	2.5	2.5	2.5	95	96	90-110	1	10		
Sulfate	mg/L	1.6	50	50	53.5	53.4	104	104	90-110	0	10		

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch:	533753	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008

METHOD BLANK: 2848998 Matrix: Water
Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/03/20 01:00	
Fluoride	mg/L	ND	0.10	0.050	04/03/20 01:00	
Sulfate	mg/L	ND	1.0	0.50	04/03/20 01:00	

LABORATORY CONTROL SAMPLE: 2848999

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.0	102	90-110	
Fluoride	mg/L	2.5	2.5	101	90-110	
Sulfate	mg/L	50	50.6	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849000 2849001

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2630417001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	4.5	50	50	57.8	57.7	107	106	90-110	0	10		
Fluoride	mg/L	0.085J	2.5	2.5	2.4	2.5	93	95	90-110	2	10		
Sulfate	mg/L	25.9	50	50	77.5	77.4	103	103	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2851053 2851054

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2630546001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	33.3	50	50	83.1	83.3	100	100	90-110	0	10		
Fluoride	mg/L	0.10	2.5	2.5	2.5	2.5	94	95	90-110	1	10		
Sulfate	mg/L	24.4	50	50	73.7	74.0	99	99	90-110	0	10		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch:	533970	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015, 2630435019, 2630435020, 2630435021, 2630435022, 2630435023

METHOD BLANK: 2849811 Matrix: Water
Associated Lab Samples: 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015, 2630435019, 2630435020, 2630435021, 2630435022, 2630435023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/02/20 15:35	
Fluoride	mg/L	ND	0.10	0.050	04/02/20 15:35	
Sulfate	mg/L	ND	1.0	0.50	04/02/20 15:35	

LABORATORY CONTROL SAMPLE: 2849812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.6	95	90-110	
Fluoride	mg/L	2.5	2.5	98	90-110	
Sulfate	mg/L	50	47.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849813 2849814

Parameter	Units	2630435009		2849814		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3.8	50	50	54.6	55.8	102	104	90-110	2	10
Fluoride	mg/L	0.25J	2.5	2.5	3.4	3.6	125	133	90-110	6	10 M1
Sulfate	mg/L	448	50	50	496	497	97	97	90-110	0	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849815 2849816

Parameter	Units	2630414008		2849816		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3.0	50	50	54.6	54.0	103	102	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	107	107	90-110	0	10
Sulfate	mg/L	116	50	50	160	146	88	60	90-110	9	10 M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

QC Batch: 533972 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 2630435024, 2630435025

METHOD BLANK: 2849817 Matrix: Water
Associated Lab Samples: 2630435024, 2630435025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/02/20 23:19	
Fluoride	mg/L	ND	0.10	0.050	04/02/20 23:19	
Sulfate	mg/L	ND	1.0	0.50	04/02/20 23:19	

LABORATORY CONTROL SAMPLE: 2849818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.7	95	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	47.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849819 2849820

Parameter	Units	2630435024		2849819		2849820		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Chloride	mg/L	5.4	50	50	56.3	57.7	102	105	90-110	2	10		
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	106	108	90-110	2	10		
Sulfate	mg/L	ND	50	50	51.2	52.1	102	104	90-110	2	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849821 2849822

Parameter	Units	2630449009		2849821		2849822		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Chloride	mg/L	1.6	50	50	54.0	53.9	105	105	90-110	0	10		
Fluoride	mg/L	0.13J	2.5	2.5	2.8	2.8	107	107	90-110	0	10		
Sulfate	mg/L	39.1	50	50	89.7	89.4	101	101	90-110	0	10		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

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

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT YATES AMA R6
Pace Project No.: 2630435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630435001	YGWA-5I				
2630435002	YGWA-5D				
2630435003	YGWA-17S				
2630435004	YGWA-20S				
2630435005	YGWA-21I				
2630435006	YGWA-40				
2630435009	YGWC-33S				
2630435010	YGWC-36				
2630435012	YGWC-43				
2630435013	YGWA-39				
2630435014	YGWC-49				
2630435016	YGWA-18S				
2630435017	YGWA-18I				
2630435019	YGWA-4I				
2630435020	YGWC-38				
2630435021	YGWC-41				
2630435022	YGWC-42				
2630435023	YGWC-23S				
2630435024	YGWC-24S				
2630435001	YGWA-5I	EPA 3010A	45067	EPA 6010D	45072
2630435002	YGWA-5D	EPA 3010A	45067	EPA 6010D	45072
2630435003	YGWA-17S	EPA 3010A	45067	EPA 6010D	45072
2630435004	YGWA-20S	EPA 3010A	45067	EPA 6010D	45072
2630435005	YGWA-21I	EPA 3010A	45067	EPA 6010D	45072
2630435006	YGWA-40	EPA 3010A	45067	EPA 6010D	45072
2630435007	EB-1-3-24-20	EPA 3010A	45067	EPA 6010D	45072
2630435008	DUP-1	EPA 3010A	45067	EPA 6010D	45072
2630435009	YGWC-33S	EPA 3010A	45067	EPA 6010D	45072
2630435010	YGWC-36	EPA 3010A	45067	EPA 6010D	45072
2630435011	DUP-2	EPA 3010A	45067	EPA 6010D	45072
2630435012	YGWC-43	EPA 3010A	45067	EPA 6010D	45072
2630435013	YGWA-39	EPA 3010A	45067	EPA 6010D	45072
2630435014	YGWC-49	EPA 3010A	45067	EPA 6010D	45072
2630435015	FB-2-3-25-20	EPA 3010A	45067	EPA 6010D	45072
2630435016	YGWA-18S	EPA 3010A	45066	EPA 6010D	45071
2630435017	YGWA-18I	EPA 3010A	45066	EPA 6010D	45071
2630435018	FB-1-3-24-20	EPA 3010A	45066	EPA 6010D	45071
2630435019	YGWA-4I	EPA 3010A	45121	EPA 6010D	45135
2630435020	YGWC-38	EPA 3010A	45121	EPA 6010D	45135
2630435021	YGWC-41	EPA 3010A	45121	EPA 6010D	45135
2630435022	YGWC-42	EPA 3010A	45172	EPA 6010D	45193
2630435023	YGWC-23S	EPA 3010A	45172	EPA 6010D	45193
2630435024	YGWC-24S	EPA 3010A	45172	EPA 6010D	45193
2630435025	EB-2-3-25-20	EPA 3010A	45172	EPA 6010D	45193
2630435001	YGWA-5I	EPA 3005A	45065	EPA 6020B	45069
2630435002	YGWA-5D	EPA 3005A	45065	EPA 6020B	45069

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630435003	YGWA-17S	EPA 3005A	45065	EPA 6020B	45069
2630435004	YGWA-20S	EPA 3005A	45065	EPA 6020B	45069
2630435005	YGWA-21I	EPA 3005A	45065	EPA 6020B	45069
2630435006	YGWA-40	EPA 3005A	45065	EPA 6020B	45069
2630435007	EB-1-3-24-20	EPA 3005A	45065	EPA 6020B	45069
2630435008	DUP-1	EPA 3005A	45065	EPA 6020B	45069
2630435009	YGWC-33S	EPA 3005A	45065	EPA 6020B	45069
2630435010	YGWC-36	EPA 3005A	45065	EPA 6020B	45069
2630435011	DUP-2	EPA 3005A	45065	EPA 6020B	45069
2630435012	YGWC-43	EPA 3005A	45112	EPA 6020B	45137
2630435013	YGWA-39	EPA 3005A	45112	EPA 6020B	45137
2630435014	YGWC-49	EPA 3005A	45112	EPA 6020B	45137
2630435015	FB-2-3-25-20	EPA 3005A	45112	EPA 6020B	45137
2630435016	YGWA-18S	EPA 3005A	45065	EPA 6020B	45069
2630435017	YGWA-18I	EPA 3005A	45065	EPA 6020B	45069
2630435018	FB-1-3-24-20	EPA 3005A	45065	EPA 6020B	45069
2630435019	YGWA-4I	EPA 3005A	45113	EPA 6020B	45136
2630435020	YGWC-38	EPA 3005A	45113	EPA 6020B	45136
2630435021	YGWC-41	EPA 3005A	45113	EPA 6020B	45136
2630435022	YGWC-42	EPA 3005A	45113	EPA 6020B	45136
2630435023	YGWC-23S	EPA 3005A	45113	EPA 6020B	45136
2630435024	YGWC-24S	EPA 3005A	45113	EPA 6020B	45136
2630435025	EB-2-3-25-20	EPA 3005A	45171	EPA 6020B	45192
2630435001	YGWA-5I	SM 2540C	44951		
2630435002	YGWA-5D	SM 2540C	44951		
2630435003	YGWA-17S	SM 2540C	44951		
2630435004	YGWA-20S	SM 2540C	44951		
2630435005	YGWA-21I	SM 2540C	44951		
2630435006	YGWA-40	SM 2540C	44951		
2630435007	EB-1-3-24-20	SM 2540C	44951		
2630435008	DUP-1	SM 2540C	45027		
2630435009	YGWC-33S	SM 2540C	45027		
2630435010	YGWC-36	SM 2540C	45027		
2630435011	DUP-2	SM 2540C	45027		
2630435012	YGWC-43	SM 2540C	45027		
2630435013	YGWA-39	SM 2540C	45027		
2630435014	YGWC-49	SM 2540C	45027		
2630435015	FB-2-3-25-20	SM 2540C	45027		
2630435016	YGWA-18S	SM 2540C	45079		
2630435017	YGWA-18I	SM 2540C	45079		
2630435018	FB-1-3-24-20	SM 2540C	45079		
2630435019	YGWA-4I	SM 2540C	45158		
2630435020	YGWC-38	SM 2540C	45158		
2630435021	YGWC-41	SM 2540C	45158		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT YATES AMA R6

Pace Project No.: 2630435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630435022	YGWC-42	SM 2540C	45160		
2630435023	YGWC-23S	SM 2540C	45160		
2630435024	YGWC-24S	SM 2540C	45160		
2630435025	EB-2-3-25-20	SM 2540C	45160		
2630435001	YGWA-5I	EPA 300.0 Rev 2.1 1993	533753		
2630435002	YGWA-5D	EPA 300.0 Rev 2.1 1993	533753		
2630435003	YGWA-17S	EPA 300.0 Rev 2.1 1993	533753		
2630435004	YGWA-20S	EPA 300.0 Rev 2.1 1993	533753		
2630435005	YGWA-21I	EPA 300.0 Rev 2.1 1993	533753		
2630435006	YGWA-40	EPA 300.0 Rev 2.1 1993	533753		
2630435007	EB-1-3-24-20	EPA 300.0 Rev 2.1 1993	533753		
2630435008	DUP-1	EPA 300.0 Rev 2.1 1993	533753		
2630435009	YGWC-33S	EPA 300.0 Rev 2.1 1993	533970		
2630435010	YGWC-36	EPA 300.0 Rev 2.1 1993	533970		
2630435011	DUP-2	EPA 300.0 Rev 2.1 1993	533970		
2630435012	YGWC-43	EPA 300.0 Rev 2.1 1993	533970		
2630435013	YGWA-39	EPA 300.0 Rev 2.1 1993	533970		
2630435014	YGWC-49	EPA 300.0 Rev 2.1 1993	533970		
2630435015	FB-2-3-25-20	EPA 300.0 Rev 2.1 1993	533970		
2630435016	YGWA-18S	EPA 300.0 Rev 2.1 1993	533750		
2630435017	YGWA-18I	EPA 300.0 Rev 2.1 1993	533750		
2630435018	FB-1-3-24-20	EPA 300.0 Rev 2.1 1993	533750		
2630435019	YGWA-4I	EPA 300.0 Rev 2.1 1993	533970		
2630435020	YGWC-38	EPA 300.0 Rev 2.1 1993	533970		
2630435021	YGWC-41	EPA 300.0 Rev 2.1 1993	533970		
2630435022	YGWC-42	EPA 300.0 Rev 2.1 1993	533970		
2630435023	YGWC-23S	EPA 300.0 Rev 2.1 1993	533970		
2630435024	YGWC-24S	EPA 300.0 Rev 2.1 1993	533972		
2630435025	EB-2-3-25-20	EPA 300.0 Rev 2.1 1993	533972		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: GA Power	Address: Atlanta, GA	Report To: SCS Contacts	Copy To: ACC Contacts	Attention: Southern Co.	Company Name: Southern Co.
Phone:	Fac:	Project Name: Plant Yates AMA R6	Purchase Order No.:	Address:	REGULATORY AGENCY
Requested Due Date/TAT: 10 Day	Project Number:	Requested Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)
		<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/>		<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/>	
		Site Location STATE: GA		Site Location STATE: GA	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATERIAL CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test	Residual Chlorine (Y/N)	pH			
					COMPOSITE	COMPOSITE			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other				TDS	Chloride/Fluoride/Sulfate 300.0	App. III + Detect Metals 6010/6020*
1	Y6WA-5I	DRINKING WATER DW	WT 6 3-24-20	WT 6 3-24-20	1414			5	2	3											
2	Y6WA-5D	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1204			5	2	3											
3	Y6WA-175	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1040			5	2	3											
4	Y6WA-185	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1430			5	2	3											
5	Y6WA-181	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1210			5	2	3											
6	Y6WA-205	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1140			5	2	3											
7	Y6WA-21E	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1255			5	2	3											
8	Y6WA-410	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1426			5	2	3											
9	Y6WA-3-24-20	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1410			5	2	3											
10	Y6WA-3-24-20	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1000			5	2	3											
11	Y6WA-3-24-20	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1000			5	2	3											
12	Y6WA-3-24-20	WASTE WATER WW	WT 6 3-24-20	WT 6 3-24-20	1000			5	2	3											

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
Please note dry well, strike through any wells not sampled and note when the last sample for the event has been taken.		APC		3-15-10				K. Wallingford		3/25/20				pH= 5.81	
Meigs-B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z														pH= 5.81	
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		DATE Signed										Temp in °C	
APC		Ryan Walker		03/25/20										Received on Ice (Y/N)	
		SIGNATURE of SAMPLER:		(MM/DD/YYYY)										Custody Sealed Cooler (Y/N)	
		Ryan Walker		03/25/20										Samples Intact (N/Y)	

*Important Note: By signing this form you are accepting Face's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020(Rev. 07, 15-Feb-2007)

April 17, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2630435
Pace Project No.: 30356614

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 27, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2630435
Pace Project No.: 30356614

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 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

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SAMPLE SUMMARY

Project: 2630435
Pace Project No.: 30356614

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630435001	YGWA-5I	Water	03/24/20 14:14	03/27/20 09:15
2630435002	YGWA-5D	Water	03/24/20 12:04	03/27/20 09:15
2630435003	YGWA-17S	Water	03/24/20 10:40	03/27/20 09:15
2630435004	YGWA-20S	Water	03/24/20 11:40	03/27/20 09:15
2630435005	YGWA-21I	Water	03/24/20 12:55	03/27/20 09:15
2630435006	YGWA-40	Water	03/24/20 14:26	03/27/20 09:15
2630435007	EB-1-3-24-20	Water	03/24/20 14:10	03/27/20 09:15
2630435008	DUP-1	Water	03/24/20 00:00	03/27/20 09:15
2630435009	YGWC-33S	Water	03/25/20 12:47	03/27/20 09:15
2630435010	YGWC-36	Water	03/25/20 12:45	03/27/20 09:15
2630435011	DUP-2	Water	03/25/20 00:00	03/27/20 09:15
2630435012	YGWC-43	Water	03/25/20 11:23	03/27/20 09:15
2630435013	YGWA-39	Water	03/25/20 10:05	03/27/20 09:15
2630435014	YGWC-49	Water	03/25/20 14:17	03/27/20 09:15
2630435015	FB-2-3-25-20	Water	03/25/20 14:00	03/27/20 09:15
2630435019	YGWA-4I	Water	03/25/20 10:26	03/27/20 10:35
2630435020	YGWC-38	Water	03/25/20 15:25	03/27/20 10:35
2630435021	YGWC-41	Water	03/25/20 14:00	03/27/20 10:35
2630435022	YGWC-42	Water	03/25/20 10:50	03/27/20 10:35
2630435023	YGWC-23S	Water	03/26/20 11:03	03/27/20 10:35
2630435024	YGWC-24S	Water	03/26/20 12:18	03/27/20 10:35
2630435025	EB-2-3-25-20	Water	03/25/20 14:25	03/27/20 10:35
2630435016	YGWA-18S	Water	03/24/20 14:30	03/27/20 09:15
2630435017	YGWA-18I	Water	03/24/20 12:10	03/27/20 09:15
2630435018	FB-1-3-24-20	Water	03/24/20 12:20	03/27/20 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2630435
Pace Project No.: 30356614

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630435001	YGWA-5I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435002	YGWA-5D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435003	YGWA-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435004	YGWA-20S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435005	YGWA-21I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435006	YGWA-40	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435007	EB-1-3-24-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435008	DUP-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435009	YGWC-33S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435010	YGWC-36	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435011	DUP-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435012	YGWC-43	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630435013	YGWA-39	EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2630435
Pace Project No.: 30356614

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630435014	YGWC-49	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435015	FB-2-3-25-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435019	YGWA-4I	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435020	YGWC-38	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435021	YGWC-41	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435022	YGWC-42	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435023	YGWC-23S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435024	YGWC-24S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435025	EB-2-3-25-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435016	YGWA-18S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435017	YGWA-18I	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630435018	FB-1-3-24-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: 2630435
Pace Project No.: 30356614

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: YGWA-5I		Lab ID: 2630435001	Collected: 03/24/20 14:14	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.104 ± 0.135 (0.269) C:88% T:NA	pCi/L	04/07/20 09:13	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.27 ± 0.536 (0.877) C:69% T:81%	pCi/L	04/15/20 13:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.37 ± 0.671 (1.15)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: YGWA-5D		Lab ID: 2630435002	Collected: 03/24/20 12:04	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	3.05 ± 0.711 (0.280) C:84% T:NA	pCi/L	04/07/20 09:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.467 ± 0.403 (0.816) C:75% T:80%	pCi/L	04/15/20 13:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.52 ± 1.11 (1.10)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: YGWA-17S		Lab ID: 2630435003	Collected: 03/24/20 10:40	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.173 ± 0.158 (0.267) C:86% T:NA	pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.361 ± 0.365 (0.755) C:76% T:81%	pCi/L	04/15/20 13:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.534 ± 0.523 (1.02)	pCi/L	04/16/20 14:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: YGWA-20S		Lab ID: 2630435004	Collected: 03/24/20 11:40	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.288 ± 0.211 (0.340) C:81% T:NA	pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.59 ± 0.805 (1.49) C:65% T:80%	pCi/L	04/15/20 16:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.88 ± 1.02 (1.83)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: YGWA-211		Lab ID: 2630435005	Collected: 03/24/20 12:55	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.463 ± 0.259 (0.360) C:83% T:NA	pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.775 ± 0.586 (1.17) C:67% T:79%	pCi/L	04/15/20 16:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.24 ± 0.845 (1.53)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: YGWA-40		Lab ID: 2630435006	Collected: 03/24/20 14:26	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.178 ± 0.186 (0.361) C:84% T:NA	pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.09 ± 0.607 (1.13) C:68% T:84%	pCi/L	04/15/20 16:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.27 ± 0.793 (1.49)	pCi/L	04/16/20 14:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: EB-1-3-24-20		Lab ID: 2630435007	Collected: 03/24/20 14:10	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.161 ± 0.154 (0.264) C:85% T:NA	pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.161 ± 0.520 (1.22) C:73% T:82%	pCi/L	04/15/20 16:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.161 ± 0.674 (1.48)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: DUP-1		Lab ID: 2630435008	Collected: 03/24/20 00:00	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.169 ± 0.177 (0.341) C:83% T:NA	pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.536 ± 0.428 (0.856) C:74% T:87%	pCi/L	04/15/20 16:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.705 ± 0.605 (1.20)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: YGWC-33S		Lab ID: 2630435009	Collected: 03/25/20 12:47	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.432 ± 0.265 (0.419) C:83% T:NA	pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.01 ± 0.507 (0.894) C:72% T:84%	pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.44 ± 0.772 (1.31)	pCi/L	04/16/20 14:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: YGWC-36		Lab ID: 2630435010	Collected: 03/25/20 12:45	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.111 ± 0.170 (0.369) C:77% T:NA		pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	1.11 ± 0.517 (0.875) C:71% T:83%		pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.22 ± 0.687 (1.24)		pCi/L	04/16/20 14:02	7440-14-4	

Sample: DUP-2		Lab ID: 2630435011	Collected: 03/25/20 00:00	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.416 ± 0.245 (0.328) C:76% T:NA		pCi/L	04/07/20 08:15	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.512 ± 0.479 (0.983) C:71% T:79%		pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.928 ± 0.724 (1.31)		pCi/L	04/16/20 14:02	7440-14-4	

Sample: YGWC-43		Lab ID: 2630435012	Collected: 03/25/20 11:23	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	2.75 ± 0.685 (0.332) C:80% T:NA		pCi/L	04/07/20 09:13	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.291 ± 0.485 (1.06) C:67% T:80%		pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	3.04 ± 1.17 (1.39)		pCi/L	04/16/20 14:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: YGWA-39		Lab ID: 2630435013	Collected: 03/25/20 10:05	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.237 ± 0.189 (0.300) C:81% T:NA	pCi/L	04/07/20 08:06	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.140 ± 0.424 (0.952) C:65% T:86%	pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.377 ± 0.613 (1.25)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: YGWC-49		Lab ID: 2630435014	Collected: 03/25/20 14:17	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.435 ± 0.329 (0.603) C:72% T:NA	pCi/L	04/07/20 08:06	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.764 ± 0.578 (1.14) C:67% T:73%	pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.20 ± 0.907 (1.74)	pCi/L	04/16/20 14:02	7440-14-4	

Sample: FB-2-3-25-20		Lab ID: 2630435015	Collected: 03/25/20 14:00	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0455 ± 0.123 (0.305) C:85% T:NA	pCi/L	04/07/20 08:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.54 ± 0.684 (1.14) C:68% T:70%	pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.59 ± 0.807 (1.45)	pCi/L	04/16/20 14:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: YGWA-41		Lab ID: 2630435019	Collected: 03/25/20 10:26	Received: 03/27/20 10:35	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.766 ± 0.337 (0.411) C:80% T:NA	pCi/L	04/07/20 08:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.0434 ± 0.524 (1.23) C:75% T:79%	pCi/L	04/16/20 18:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.766 ± 0.861 (1.64)	pCi/L	04/17/20 10:30	7440-14-4	

Sample: YGWC-38		Lab ID: 2630435020	Collected: 03/25/20 15:25	Received: 03/27/20 10:35	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.321 ± 0.249 (0.459) C:89% T:NA	pCi/L	04/07/20 08:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.196 ± 0.605 (1.42) C:75% T:89%	pCi/L	04/16/20 18:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.321 ± 0.854 (1.88)	pCi/L	04/17/20 10:30	7440-14-4	

Sample: YGWC-41		Lab ID: 2630435021	Collected: 03/25/20 14:00	Received: 03/27/20 10:35	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.348 ± 0.223 (0.308) C:80% T:NA	pCi/L	04/07/20 07:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.220 ± 0.578 (1.29) C:76% T:78%	pCi/L	04/16/20 18:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.568 ± 0.801 (1.60)	pCi/L	04/17/20 10:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: YGWC-42		Lab ID: 2630435022	Collected: 03/25/20 10:50	Received: 03/27/20 10:35	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.638 ± 0.302 (0.344) C:78% T:NA	pCi/L	04/07/20 07:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.532 ± 0.558 (1.16) C:73% T:86%	pCi/L	04/16/20 18:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.17 ± 0.860 (1.50)	pCi/L	04/17/20 10:30	7440-14-4	

Sample: YGWC-23S		Lab ID: 2630435023	Collected: 03/26/20 11:03	Received: 03/27/20 10:35	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.159 ± 0.186 (0.374) C:75% T:NA	pCi/L	04/07/20 08:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.122 ± 0.508 (1.16) C:75% T:81%	pCi/L	04/16/20 18:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.281 ± 0.694 (1.53)	pCi/L	04/17/20 10:30	7440-14-4	

Sample: YGWC-24S		Lab ID: 2630435024	Collected: 03/26/20 12:18	Received: 03/27/20 10:35	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.173 ± 0.176 (0.334) C:84% T:NA	pCi/L	04/07/20 07:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.338 ± 0.473 (1.01) C:76% T:94%	pCi/L	04/16/20 18:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.511 ± 0.649 (1.34)	pCi/L	04/17/20 10:30	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Sample: EB-2-3-25-20		Lab ID: 2630435025	Collected: 03/25/20 14:25	Received: 03/27/20 10:35	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0826 ± 0.201 (0.477) C:85% T:NA	pCi/L	04/07/20 07:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.318 ± 0.461 (0.991) C:79% T:81%	pCi/L	04/16/20 18:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.401 ± 0.662 (1.47)	pCi/L	04/17/20 10:30	7440-14-4	

Sample: YGWA-18S		Lab ID: 2630435016	Collected: 03/24/20 14:30	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.262 ± 0.0996 (0.111) C:96% T:NA	pCi/L	04/07/20 19:24	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.114 ± 0.333 (0.796) C:82% T:86%	pCi/L	04/16/20 14:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.262 ± 0.433 (0.907)	pCi/L	04/17/20 10:48	7440-14-4	

Sample: YGWA-18I		Lab ID: 2630435017	Collected: 03/24/20 12:10	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.504 ± 0.169 (0.192) C:74% T:NA	pCi/L	04/07/20 19:24	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.128 ± 0.370 (0.827) C:83% T:86%	pCi/L	04/16/20 14:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.632 ± 0.539 (1.02)	pCi/L	04/17/20 10:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.383 ± 0.125 (0.123) C:89% T:NA	pCi/L	04/07/20 19:24	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.641 ± 0.431 (0.838) C:83% T:85%	pCi/L	04/16/20 14:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.02 ± 0.556 (0.961)	pCi/L	04/17/20 10:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

QC Batch:	390590	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015

METHOD BLANK:	1891462	Matrix:	Water
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Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0954 ± 0.125 (0.246) C:85% T:NA	pCi/L	04/07/20 09:13	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

QC Batch:	390593	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015

METHOD BLANK: 1891465	Matrix: Water
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Associated Lab Samples: 2630435001, 2630435002, 2630435003, 2630435004, 2630435005, 2630435006, 2630435007, 2630435008, 2630435009, 2630435010, 2630435011, 2630435012, 2630435013, 2630435014, 2630435015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.112 ± 0.287 (0.643) C:74% T:91%	pCi/L	04/15/20 13:00	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

QC Batch: 390592	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630435016, 2630435017, 2630435018

METHOD BLANK: 1891464 Matrix: Water

Associated Lab Samples: 2630435016, 2630435017, 2630435018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.444 ± 0.130 (0.104) C:98% T:NA	pCi/L	04/07/20 18:26	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

QC Batch: 390595	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630435016, 2630435017, 2630435018

METHOD BLANK: 1891467 Matrix: Water

Associated Lab Samples: 2630435016, 2630435017, 2630435018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.544 ± 0.340 (0.632) C:84% T:88%	pCi/L	04/16/20 14:15	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

QC Batch: 390591	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630435019, 2630435020, 2630435021, 2630435022, 2630435023, 2630435024, 2630435025

METHOD BLANK: 1891463 Matrix: Water

Associated Lab Samples: 2630435019, 2630435020, 2630435021, 2630435022, 2630435023, 2630435024, 2630435025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0696 ± 0.172 (0.412) C:90% T:NA	pCi/L	04/07/20 08:03	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630435
Pace Project No.: 30356614

QC Batch:	390594	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 2630435019, 2630435020, 2630435021, 2630435022, 2630435023, 2630435024, 2630435025

METHOD BLANK: 1891466 Matrix: Water

Associated Lab Samples: 2630435019, 2630435020, 2630435021, 2630435022, 2630435023, 2630435024, 2630435025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.184 ± 0.318 (0.783) C:80% T:81%	pCi/L	04/16/20 15:55	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 2630435
Pace Project No.: 30356614

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(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.

REPORT OF LABORATORY ANALYSIS

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Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA Yes No
 Cert. Needed: Yes No
 Owner Received Date: 3/25/2020 Results Requested By: 4/8/2020

Workorder: 2630435 Workorder Name: PLANT YATES AMA R6

Kevin Henning
 Pace Analytical Charlotte
 9800 Kinsey Ave.
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 Huntersville, NC 28078
 Phone (704)875-9092

Pace Analytical Pittsburgh
 1638 Roseytown Road
 Suites 2,3, & 4
 Greensburg, PA 15601
 Phone (724)850-5600



Report ID	Sample ID	Sample Type	Collect Date/Time	Subcontractor	Matrix	Preserved Containers	Other	NO3	NO2	NO	LAB USE ONLY
1	YGWA-51	PS	3/24/2020 14:14	2630435001	Water						EE1
2	YGWA-5D	PS	3/24/2020 12:04	2630435002	Water						EE2
3	YGWA-17S	PS	3/24/2020 10:40	2630435003	Water						EE3
4	YGWA-20S	PS	3/24/2020 11:40	2630435004	Water						EE4
5	YGWA-21I	PS	3/24/2020 12:55	2630435005	Water						EE5
6	YGWA-40	PS	3/24/2020 14:26	2630435006	Water						EE6
7	EB-1-3-24-20	PS	3/24/2020 14:10	2630435007	Water						EE7
8	DUP-1	PS	3/24/2020 00:00	2630435008	Water						EE8
9	YGWC-33S	PS	3/25/2020 12:47	2630435009	Water						EE9
10	YGWC-36	PS	3/25/2020 12:45	2630435010	Water						EE10
11	DUP-2	PS	3/25/2020 00:00	2630435011	Water						EE11
12	YGWC-43	PS	3/25/2020 11:23	2630435012	Water						EE12
13	YGWA-39	PS	3/25/2020 10:05	2630435013	Water						EE13
14	YGWC-49	PS	3/25/2020 14:17	2630435014	Water						EE14
15	FB-2-3-25-20	PS	3/25/2020 14:00	2630435015	Water						EE15
16	YGWA-18S	PS	3/24/2020 14:30	2630435016	Water						
17	YGWA-18I	PS	3/24/2020 12:10	2630435017	Water						
18	FB-1-3-24-20	PS	3/24/2020 12:20	2630435018	Water						

NO#: 30356614

30356614

RAD 9315
 RAD 9320

Comments								
Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N
1	<i>Chil Patel</i>	3/25/20 1700	<i>[Signature]</i>	3-27-20 0415				
2								
3								
Cooler Temperature on Receipt <i>4.4</i> °C								

For samples 2630435 016-018, upload results from 2630431 001-003 respectively.

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

#-30356614

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

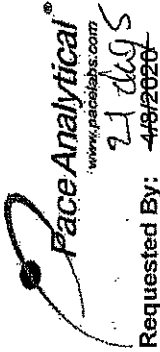
Cert. Needed: Yes No

Owner Received Date: 3/25/2020 Results Requested By: 4/8/2020

Workorder: 2630435 Workorder Name: PLANT YATES AMA R6

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Greensburg, PA 15601
Phone (724)850-5600



Client Sample ID	Sample Type	Collect Date/Time	Matrix	Other	HNO3	Other	LAB USE ONLY
1 YGWA-51	PS	3/24/2020 14:14	2630435001 Water				
2 YGWA-38	PS	3/24/2020 12:04	2630435002 Water				
3 YGWA-17S	PS	3/24/2020 10:40	2630435003 Water				
4 YGWA-20S	PS	3/24/2020 11:40	2630435004 Water				
5 YGWA-211	PS	3/24/2020 12:55	2630435005 Water				
6 YGWA-40	PS	3/24/2020 14:26	2630435006 Water				
7 EB-1-3-24-20	PS	3/24/2020 14:10	2630435007 Water				
8 DUP-1	PS	3/24/2020 10:00	2630435008 Water				
9 YGWC-33S	PS	3/25/2020 12:47	2630435009 Water				
10 YGWC-36	PS	3/25/2020 12:45	2630435010 Water				
11 DUP-2	PS	3/25/2020 06:00	2630435011 Water				
12 YGWC-43	PS	3/25/2020 11:23	2630435012 Water				
13 YGWA-39	PS	3/25/2020 10:05	2630435013 Water				
14 YGWC-49	PS	3/25/2020 14:17	2630435014 Water				
15 FB-2-3-25-20	PS	3/25/2020 14:00	2630435015 Water				
16 YGWA-18S	PS	3/24/2020 14:30	2630435016 Water	1			
17 YGWA-34	PS	3/24/2020 12:10	2630435017 Water	1			
18 FB-1-3-24-20	PS	3/24/2020 12:20	2630435018 Water				
19 YGWA-41	PS	3/25/2020 10:26	2630435019 Water				

WO#: 30356614
 PM: JAC Due Date: 04/17/20
 CLIENT: PACE_26_ATGA

RAD 9315
RAD 9320

CLY

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

Cert. Needed: Yes No

Owner Received Date: 3/25/2020 Results Requested By: 4/8/2020

Workorder: 2630435 Workorder Name: PLANT YATES AMA R6

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Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3	Other	Preserved Containers	LAB USE ONLY
20	YGWC-38	PS	3/25/2020 15:25	2630435020	Water	1	2		
21	YGWC-41	PS	3/25/2020 14:00	2630435021	Water	1	2		
22	YGWC-42	PS	3/25/2020 10:50	2630435022	Water	1	1		
23	YGWC-23S	PS	3/26/2020 11:03	2630435023	Water	1	1		
24	YGWC-24S	PS	3/26/2020 12:18	2630435024	Water	1	2		
25	EB-2-3-25-20	PS	3/25/2020 14:25	2630435025	Water	1	2		
<p>Transfers Released By: _____ Date/Time: _____ Received By: _____ Date/Time: 3/25/20 16:35</p>									
<p>Cooler Temperature on Receipt: <u>NA</u> °C</p>									
<p>Received on Ice: Y or N</p>									
<p>Custody Seal: Y or N</p>									
<p>Samples Intact: Y or N</p>									
<p>Comments: Add on project</p>									

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

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

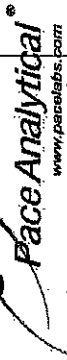
Cert. Needed: Yes No

Workorder: 2630431 Workorder Name: PLANT YATES AMA R6 SECOND

Owner Received Date: 3/25/2020 Results Requested By: 4/8/2020

Report To: Kevin Herring
 Pace Analytical Charlotte
 9800 Kinney Ave.
 Suite 100
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 Phone (704)875-9092

Subcontracted To: Pace Analytical Pittsburgh
 1638 Roseytown Road
 Suites 2, 3, & 4
 Greensburg, PA 15601
 Phone (724)850-5600



21 dug S
 4/8/2020

WO#: 30356614

PM: JAC Due Date: 04/17/20

CLIENT: PACE_26_ATGA

RAD 9315
 RAD 9320

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preservatives/Containers		LAB USE ONLY
						HNO3	Matrix	
1	YGWA-18S	PS	3/24/2020 14:30	2630431001	Water	✓	✓	
2	YGWA-18I	PS	3/24/2020 12:10	2630431002	Water	✓	✓	016
3	FB-1-3-24-20	PS	3/24/2020 12:20	2630431003	Water	✓	✓	017
4	YGWC-33S	PS	3/25/2020 12:47	2630431004	Water	✓	✓	018
5	YGWC-36	PS	3/25/2020 12:45	2630431005	Water	✓	✓	
6	DUP-2	PS	3/25/2020 00:00	2630431006	Water	✓	✓	

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	3/25/20 11:00	<i>[Signature]</i>	3-27-20 9:05
2				
3				

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

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

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace GA

Project # #-30356614

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1657 9507 1540

Label	<u>DL</u>
LIMS Login	<u>PM</u>

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

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature _____ Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and initials of person examining contents:
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. <u>10D2191</u>
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15.
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. <u>PHCZ</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>DL</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>DL</u> Date: <u>3-27-20</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Jacquelyn Collins - Re: RADS for 2630431

From: Tyler Forney
To: Jacquelyn Collins
Date: 3/31/2020 4:22 PM
Subject: Re: RADS for 2630431

Those samples should correspond with 2630435-016, 017, 018 and ~~009, 010, 011~~. If you don't have containers for that project logged in already then use the containers labeled as 2630431 for those samples.

Tyler Forney

Project Coordinator | Environmental Sciences
9800 Kinsey Avenue; Suite 100, Huntersville, NC 28078
Office: [704-977-0962](tel:704-977-0962) | pacelabs.com



>>> Jacquelyn Collins 3/31/2020 4:19 PM >>>

We can dispose of the samples received?

Thanks!

Jacquelyn Collins

Project Manager|Environmental Sciences
1638 Roseytown Road, Suites 2, 3, & 4, Greensburg, PA 15601
office: [724-850-5600](tel:724-850-5600) |
fax: [724-850-5601](tel:724-850-5601)
pacelabs.com



>>> Tyler Forney 3/31/2020 4:16 PM >>>

2630435 is going to end up being the report they want the results on

WO#: 30356614

Pittsburgh Lab Sample Condition Upon Receipt

PM: JAC

Due Date: 04/17/20

CLIENT: PACE_26_ATGA



Client Name: Pace CA

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 1657 9507 1804

Label	<u>DIC</u>
LIMS Login	<u>DP</u>

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

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

pH paper Lot#	<u>102191</u>	Date and initials of person examining contents:	<u>PM 3-30-20</u>
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Comments:

	Yes	No	N/A	
Chain of Custody Present:	/			1.
Chain of Custody Filled Out:	/			2.
Chain of Custody Relinquished:		/		3.
Sampler Name & Signature on COC:	/			4.
Sample Labels match COC:	/			5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):		/		7.
Rush Turn Around Time Requested:		/		8.
Sufficient Volume:	/			9.
Correct Containers Used:	/			10.
-Pace Containers Used:	/			
Containers Intact:	/			11.
Orthophosphate field filtered			/	12.
Hex Cr Aqueous sample field filtered			/	13.
Organic Samples checked for dechlorination:			/	14.
Filtered volume received for Dissolved tests			/	15.
All containers have been checked for preservation.	/			16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				<u>PM</u>
All containers meet method preservation requirements.	/			Initial when completed: <u>PM</u> Date/time of preservation:
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			/	17.
Trip Blank Present:		/		18.
Trip Blank Custody Seals Present		/		
Rad Samples Screened < 0.5 mrem/hr	/			Initial when completed: <u>PM</u> Date: <u>3-30-20</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Pittsburgh Lab Sample Condition Upon Receipt

WO#: 30356614

PM: JAC Due Date: 04/17/20
 CLIENT: PACE_26_ATGA



Client Name: Pace GA

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1657 9507 1540

Label DM
 LIMS Login DM

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

Thermometer Used N/A Type of Ice: Wet Blue NONE

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
 Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and Initials of person examining contents: <u>DM 3-27-20</u>
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. <u>Only received samples CO1-003</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. <u>DM2</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>DM</u> Date/time of preservation: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.
Trip Blank Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>DM</u> Date: <u>3-30-20</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

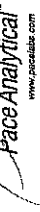
Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 4/5/2020
Worklist: 53221
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1891462
MB concentration:	0.095
M/B Counting Uncertainty:	0.124
MB MDC:	0.246
MB Numerical Performance Indicator:	1.51
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS# (Y or N)?	Y
LCS53221	4/7/2020
LCS53221	4/7/2020
Count Date:	4/7/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.049
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.513
Target Conc. (pCi/L, g, F):	4.685
Uncertainty (Calculated):	0.056
Result (pCi/L, g, F):	4.614
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.725
Numerical Performance Indicator:	-0.19
Percent Recovery:	98.48%
Status vs Numerical Indicator:	N/A
Upper % Recovery Limits:	Pass
Lower % Recovery Limits:	125%
	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS53221
Duplicate Sample I.D.:	LCS53221
Sample Result (pCi/L, g, F):	4.614
Sample Duplicate Result (pCi/L, g, F):	0.725
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	4.549
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.128
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.17%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	
Sample Collection Date:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Spike I.D.:	Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):	MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):	MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):	MS Spike Uncertainty (calculated):
MS Spike Uncertainty (calculated):	MSD Spike Uncertainty (calculated):
MS/MSD Duplicate Result Counting Uncertainty (pCi/L, g, F):	Sample Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:	Sample Matrix Spike Result:
MSD Numerical Performance Indicator:	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
MS Percent Recovery:	Sample Matrix Spike Duplicate Result:
MSD Percent Recovery:	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Status vs Numerical Indicator:	MS Numerical Performance Indicator:
MSD Status vs Numerical Indicator:	MSD Numerical Performance Indicator:
MS/MSD Upper % Recovery Limits:	MS Percent Recovery:
MS/MSD Lower % Recovery Limits:	MSD Status vs Recovery:
	MS Status vs Recovery:
	MS/MSD Upper % Recovery Limits:
	MS/MSD Lower % Recovery Limits:

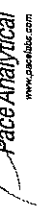
Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

WAM 4/17/20

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: LAL
Date: 4/5/2020
Worklist: 53221
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1891462
MB Concentration:	0.095
M/B Counting Uncertainty:	0.124
MB MDC:	0.246
MB Numerical Performance Indicator:	1.51
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	n
LCSS53221	LCSD563221
Count Date:	4/7/2020
Spike I.D.:	19-093
Decay Corrected Spike Concentration (pCi/mL):	24.049
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.513
Target Conc. (pCi/L, g, F):	4.685
Uncertainty (Calculated):	0.056
Result (pCi/L, g, F):	4.614
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.725
Numerical Performance Indicator:	-0.19
Percent Recovery:	98.48%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	2630435007
Duplicate Sample I.D.:	2630435007DUP
Sample Result (pCi/L, g, F):	0.161
Sample Result Counting Uncertainty (pCi/L, g, F):	0.152
Sample Duplicate Result (pCi/L, g, F):	0.099
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.158
Are sample and/or duplicate results below RL?	See Below #
Duplicate Numerical Performance Indicator:	0.550
Duplicate RPD:	47.42%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

*** Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

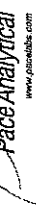
Sample Matrix Spike Control Assessment	
Sample Collection Date:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Spike I.D.:	MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):	Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):	MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):	MSD Target Conc. (pCi/L, g, F):
MS Spike Uncertainty (calculated):	MS Spike Uncertainty (calculated):
MSD Spike Uncertainty (calculated):	MSD Spike Uncertainty (calculated):
Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Result:
Sample Matrix Spike Result:	Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
MS Numerical Performance Indicator:	MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:	MSD Numerical Performance Indicator:
MS Percent Recovery:	MS Percent Recovery:
MS Status vs Numerical Indicator:	MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:	MSD Status vs Numerical Indicator:
MS Status vs Recovery:	MS Status vs Recovery:
MSD Status vs Recovery:	MSD Status vs Recovery:
MS/MSD Upper % Recovery Limits:	MS/MSD Upper % Recovery Limits:
MS/MSD Lower % Recovery Limits:	MS/MSD Lower % Recovery Limits:

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Sample Matrix Spike Result:	Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

***Batch must be re-prepared due to unacceptable precision. N/A

4/17/20

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 4/5/2020
Worklist: 53222
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1891463
MB concentration:	0.070
M/B Counting Uncertainty:	0.172
MB MDC:	0.412
MB Numerical Performance Indicator:	0.79
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	Y	N
Count Date:	4/7/2020	LCS053222
Spike I.D.:	19-033	4/7/2020
Decay Corrected Spike Concentration (pCi/mL):	24.049	19-033
Volume Used (mL):	0.10	24.049
Aliquot Volume (L, g, F):	0.514	0.10
Target Conc. (pCi/L, g, F):	4.675	0.501
Uncertainty (Calculated):	0.056	4.798
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	4.859	0.058
Numerical Performance Indicator:	0.707	0.719
Percent Recovery:	103.94%	-0.27
Status vs Numerical Indicator:	N/A	97.92%
Upper % Recovery Limits:	Pass	N/A
Lower % Recovery Limits:	125%	Pass
	75%	125%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS053222
Duplicate Sample I.D.:	LCS053222
Sample Result (pCi/L, g, F):	4.859
Sample Result Counting Uncertainty (pCi/L, g, F):	0.707
Sample Duplicate Result (pCi/L, g, F):	4.698
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.719
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.313
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.96%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator:		
MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

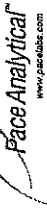
Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

LAB 4/7/20
KUB
4-7-2020

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 4/5/2020
Worklist: 53222
Matrix: DW

Method Blank Assessment	
MB Sample ID	1891483
MB concentration:	0.070
M/B Counting Uncertainty:	0.172
MB MDC:	0.412
MB Numerical Performance Indicator:	0.79
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		
LCS#	(Y or N)?	N
LCS53222		LCS053222
Count Date:	4/7/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.049	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.514	
Target Conc. (pCi/L, g, F):	4.675	
Uncertainty (Calculated):	0.066	
Result (pCi/L, g, F):	4.859	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.707	
Numerical Performance Indicator:	0.51	
Percent Recovery:	103.94%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment	
Sample I.D.:	2630449010
Duplicate Sample I.D.:	2630449010DUP
Sample Result (pCi/L, g, F):	0.051
Sample Result Counting Uncertainty (pCi/L, g, F):	0.134
Sample Duplicate Result (pCi/L, g, F):	0.127
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.138
Are sample and/or duplicate results below RL?	See Below #
Duplicate Numerical Performance Indicator:	-0.770
Duplicate RPD:	84.72%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision. N/A
www 4/7/20

Analyst Must Manually Enter All Fields Highlighted in Yellow.

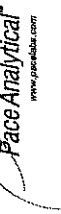
Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator: Duplicate RPD: Duplicate Status vs RPD: % RPD Limit:

www 4/7/20

KAS
4-7-2020

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 4/7/2020
Worklist: 53223
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1891464
MB concentration:	0.444
M/B Counting Uncertainty:	0.113
MB MDC:	0.104
MB Numerical Performance Indicator:	7.66
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
Count Date:	4/7/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.049
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.509
Target Conc. (pCi/L, g, F):	4.761
Uncertainty (Calculated):	0.057
Result (pCi/L, g, F):	4.967
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.343
Numerical Performance Indicator:	1.16
Percent Recovery:	104.32%
Status vs Numerical Indicator:	N/A
Upper % Recovery Limits:	Pass
Lower % Recovery Limits:	125%
	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS53223
Duplicate Sample I.D.:	LCS53223
Sample Result (pCi/L, g, F):	4.967
Sample Duplicate Result (pCi/L, g, F):	0.343
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	4.483
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.323
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	2.012
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.51%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:</p> <p>M/S/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):</p> <p>Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:</p>

WAMY 18/20

Cue 4/8/20

Quality Control Sample Performance Assessment



Analyst: **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226
Analyst: LAL
Date: 4/7/2020
Worklist: 53223
Matrix: DW

Method Blank Assessment	
MB Sample ID	1891464
MB concentration:	0.444
M/B Counting Uncertainty:	0.113
MB MDC:	0.104
MB Numerical Performance Indicator:	7.66
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSID (Y or N)?	N
LCS53223	LCS53223
Count Date:	4/7/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.049
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.505
Target Conc. (pCi/L, g, F):	4.761
Uncertainty (Calculated):	0.057
Result (pCi/L, g, F):	4.967
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.343
Numerical Performance Indicator:	1.16
Percent Recovery:	104.32%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	2630417003
Duplicate Sample I.D.:	2630417003DUP
Sample Result (pCi/L, g, F):	0.696
Sample Duplicate Result (pCi/L, g, F):	0.140
Sample Duplicate Result (pCi/L, g, F):	0.776
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.142
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	-0.786
Duplicate RPD:	10.88%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
MS Spike Uncertainty (calculated):	
MSD Spike Uncertainty (calculated):	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	
MS/MSD Upper % Recovery Limits:	
MS/MSD Lower % Recovery Limits:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

WAM 4/8/20

Cue 4/8/20

Quality Control Sample Performance Assessment

Analyst **Must Manually Enter All Fields Highlighted in Yellow.**



Test: Ra-228
Analyst: VAL
Date: 4/7/2020
Worklist: 53224
Matrix: WT

Method Blank Assessment	
MB Sample ID	1891465
MB concentration:	0.112
MB 2 Sigma CSU:	0.287
MB MDC:	0.643
MB Numerical Performance Indicator:	0.76
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?		Y
	LCSD	LCSD	
Count Date:	4/15/2020	4/15/2020	LCSD53224
Spike I.D.:	19-057	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.481	34.481	34.481
Volume Used (mL):	0.10	0.10	0.10
Aliquot Volume (L, g, F):	0.813	0.813	0.813
Target Conc. (pCi/L, g, F):	4.234	4.240	4.240
Uncertainty (Calculated):	0.305	0.305	0.305
Result (pCi/L, g, F):	4.852	4.733	4.733
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.102	1.081	1.081
Numerical Performance Indicator:	1.06	0.86	0.86
Percent Recovery:	114.60%	111.63%	111.63%
Status vs Numerical Indicator:	N/A	N/A	N/A
Status vs Recovery:	Pass	Pass	Pass
Upper % Recovery Limits:	135%	135%	135%
Lower % Recovery Limits:	60%	60%	60%

Duplicate Sample Assessment	Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.: LCS53224</p> <p>Duplicate Sample I.D.: LCS53224</p> <p>Sample Result (pCi/L, g, F): 4.852</p> <p>Sample Result 2 Sigma CSU (pCi/L, g, F): 1.102</p> <p>Sample Duplicate Result (pCi/L, g, F): 4.733</p> <p>Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): 1.081</p> <p>Are sample and/or duplicate results below RL? NO</p> <p>Duplicate Numerical Performance Indicator: 0.151</p> <p>Duplicate Status vs Numerical Indicator: 2.63%</p> <p>Duplicate Status vs Numerical Indicator: Pass</p> <p>Duplicate Status vs RPD: Pass</p> <p>% RPD Limit: 36%</p>	<p>Sample I.D.: LCS53224</p> <p>Sample MS I.D.: LCS53224</p> <p>Sample Matrix Spike Result: LCS53224</p> <p>Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): 1.102</p> <p>Sample Matrix Spike Duplicate Result: LCS53224</p> <p>Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): 1.081</p> <p>Duplicate Numerical Performance Indicator: 0.151</p> <p>Duplicate Status vs Numerical Indicator: 2.63%</p> <p>Duplicate Status vs Numerical Indicator: Pass</p> <p>Duplicate Status vs RPD: Pass</p> <p>% RPD Limit: 36%</p>

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date:</p> <p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</p> <p>Spike Volume Used in MS (mL):</p> <p>Spike Volume Used in MSD (mL):</p> <p>MS Aliquot (L, g, F):</p> <p>MS Target Conc. (pCi/L, g, F):</p> <p>MSD Aliquot (L, g, F):</p> <p>MSD Target Conc. (pCi/L, g, F):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>Sample Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Result: LCS53224</p> <p>Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result: LCS53224</p> <p>Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):</p> <p>MS Numerical Performance Indicator: LCS53224</p> <p>MSD Numerical Performance Indicator: LCS53224</p> <p>MS Percent Recovery: LCS53224</p> <p>MSD Percent Recovery: LCS53224</p> <p>MS Status vs Numerical Indicator: LCS53224</p> <p>MSD Status vs Numerical Indicator: LCS53224</p> <p>MS Status vs Recovery: LCS53224</p> <p>MSD Status vs Recovery: LCS53224</p> <p>MS/MSD Upper % Recovery Limits: LCS53224</p> <p>MS/MSD Lower % Recovery Limits: LCS53224</p>		

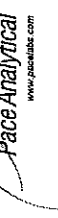
Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.: LCS53224</p> <p>Sample MS I.D.: LCS53224</p> <p>Sample Matrix Spike Result: LCS53224</p> <p>Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): 1.102</p> <p>Sample Matrix Spike Duplicate Result: LCS53224</p> <p>Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): 1.081</p> <p>Duplicate Numerical Performance Indicator: 0.151</p> <p>Duplicate Status vs Numerical Indicator: 2.63%</p> <p>Duplicate Status vs Numerical Indicator: Pass</p> <p>Duplicate Status vs RPD: Pass</p> <p>% RPD Limit: 36%</p>

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228
Analyst: VAL
Date: 4/7/2020
Worklist: 53225
Matrix: WT

Method Blank Assessment	
MB Sample ID	1891466
MB concentration:	-0.184
M/B 2 Sigma CSU:	0.318
MB MDC:	0.783
MB Numerical Performance Indicator:	-1.13
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD53225	LCSD53225
Count Date:	4/16/2020	4/16/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.469	34.469
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.808	0.807
Target Conc. (pCi/L, g, F):	4.266	4.269
Uncertainty (Calculated):	0.307	0.307
Result (pCi/L, g, F):	4.487	4.458
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.030	1.019
Numerical Performance Indicator:	0.40	0.35
Percent Recovery:	105.19%	104.44%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCSD53225
Duplicate Sample I.D.:	LCSD53225
Sample Result (pCi/L, g, F):	4.487
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.030
Sample Duplicate Result (pCi/L, g, F):	4.458
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.019
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.039
Duplicate Percent Recoveries:	0.72%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
M/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

537-30
Ra-228 NIELAC DWZ
Printed: 4/17/2020 8:25 AM
4/17/20

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 4/7/2020
Worklist: 53226
Matrix: WT



Method Blank Assessment	
MB Sample ID	1891487
MB concentration:	0.544
M/B 2 Sigma CSU:	0.340
MB MDC:	0.632
MB Numerical Performance Indicator:	3.14
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD53226	Y
Count Date:	4/16/2020	LCSD53226
Spike I.D.:	19-057	4/16/2020
Decay Corrected Spike Concentration (pCi/mL):	34.469	19-057
Volume Used (mL):	0.10	34.469
Aliquot Volume (L, g, F):	0.806	0.10
Target Conc. (pCi/L, g, F):	4.276	0.804
Uncertainty (Calculated):	0.309	4.289
Result (pCi/L, g, F):	2.644	0.309
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.706	3.287
Numerical Performance Indicator:	-4.15	0.811
Percent Recovery:	61.83%	-2.26
Status vs Numerical Indicator:	N/A	76.63%
Status vs Recovery:	Pass	N/A
Upper % Recovery Limits:	135%	Pass
Lower % Recovery Limits:	60%	135%

Duplicate Sample Assessment	
Sample I.D.:	LCSD53226
Duplicate Sample I.D.:	LCSD53226
Sample Result (pCi/L, g, F):	2.644
Sample Duplicate Result (pCi/L, g, F):	0.706
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	3.287
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.811
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.171
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	21.37%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

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APPENDIX D

Historical Groundwater Analytical Data



Analyte	Units	PZ-35	PZ-35	PZ-35	PZ-35	PZ-37	PZ-37	PZ-37	PZ-37	PZ-37	PZ-37	
		PZ-35 (083018)	PZ-35 (101618)	PZ-35 (092619)	PZ-35 (032520)	PZ-37 (101217)	PZ-37 (112117)	PZ-37 (011118)	PZ-37 (022018)	PZ-37 (040318)	PZ-37 (062918)	
		8/30/2018	10/16/2018	9/26/2019	3/25/2020	10/12/2017	11/21/2017	1/11/2018	2/20/2018	4/3/2018	6/29/2018	
Appendix III	Boron	mg/l	0.04	0.031 J	< 0.04	0.071 J	15.4	17.2	15.8	19.5	17.5	20.6
	Calcium	mg/l	NA	6.5	4.7	7.9	122	118	119	124	114	129
	Chloride	mg/l	NA	NA	NA	6.8	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	< 0.050	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	34.2	14.3	NA	650	700	590	677	615	634
	Total Dissolved Solids	mg/l	NA	123	NA	84.0	1060	1100	1020	1050	1080	979
Appendix IV	Antimony	mg/l	NA	NA	< 0.005	< 0.00027	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	NA	0.00069 J	< 0.0025	< 0.00035	0.0014 J	0.0008 J	0.0006 J	< 0.005	0.0012 J	0.0011 J
	Barium	mg/l	NA	0.063	0.039	0.064	0.039	0.064	0.0549	0.0593	0.051	0.054
	Beryllium	mg/l	0.00052 J	0.00036 J	< 0.001	< 0.000074	0.0004 J	0.0004 J	0.0003 J	< 0.015	< 0.003	0.00033 J
	Cadmium	mg/l	NA	< 0.001	< 0.0005	0.00016 J	0.0002 J	0.0002 J	0.0004 J	< 0.001	< 0.001	0.00099 J
	Chromium	mg/l	NA	NA	NA	0.0012 J	0.0019 J	0.0017 J	0.001 J	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	NA	< 0.01	< 0.005	0.0059	0.0078 J	0.0097 J	0.0131	0.0162	0.015	0.013
	Lead	mg/l	NA	NA	< 0.0015	< 0.000046	0.0002 J	0.0002 J	0.0001 J	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	NA	0.0011 J	< 0.03	0.011 J	0.0271 J	0.0255 J	0.0271 J	< 0.25	0.027 J	0.032 J
	Mercury	mg/l	NA	NA	NA	NA	< 0.0005	0.00006 J	< 0.0005	< 0.0002	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	NA	0.0019 J	0.0022 J	0.0016 J	0.0015 J	< 0.01	< 0.01	0.0021 J
	Combined Radium - 226/228	pci/l	NA	0.363 U	NA	0.197 U	1.83	1.33	1.53	2.75	1.47	1.69
	Selenium	mg/l	NA	< 0.01	< 0.0025	< 0.0013	0.234	0.225	0.168	0.315	0.28	0.26
	Thallium	mg/l	NA	NA	< 0.001	< 0.000052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	NA	NA	NA	1289	1285.4	1202.4	1220.2	1188.2	1264.7
	Dissolved Oxygen	mg/l	NA	NA	NA	NA	0.25	0.29	0.14	0.37	0.22	0.31
	Iron (Ferrous)	mg/l	NA	NA	NA	0	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	NA	NA	NA	9.6	15.3	-32.5	57.9	120.3	73.1
	pH	SU	NA	NA	NA	5.65	5.57	5.49	5.87	5.9	5.66	5.49
	Temperature	C	NA	NA	NA	NA	21.54	18.22	16.78	18.26	18.24	19.53
	Turbidity	ntu	NA	NA	NA	NA	1.51	3.05	4.45	2.57	4.31	1.01
Supplemental	Alkalinity	mg/l	NA	NA	NA	28.5	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	13.5	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	13.5	28.5	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	< 1	< 5.0	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	< 0.1	< 0.032	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	8.5	7.5	NA	5.4	6.5	5	5.2	4.8	5.7
	Fluoride	mg/l	NA	< 0.3	< 0.1	NA	< 0.3	0.26 J	< 0.3	0.45	0.31	< 0.3
	Iron (Ferric)	mg/l	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	0	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	2.57	4.6	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	0.0164	0.024 J	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	2.1	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	1.02 J	8.8	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	10.7	13.9	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	PZ-37	PZ-37	YAMW-1	YAMW-1	YAMW-1	YAMW-1	YAMW-2	YAMW-3	YAMW-3	YAMW-4	
		PZ-37 (080618)	PZ-37 (092418)	YAMW-1 (101618)	YAMW-1 (092619)	YAMW-1 (010320)	YAMW-1 (032520)	YAMW-2 (011520)	YAMW-3 (011620)	YAMW-3 (021120)	YAMW-4 (011620)	
		8/6/2018	9/24/2018	10/16/2018	9/26/2019	1/3/2020	3/25/2020	1/15/2020	1/16/2020	2/11/2020	1/16/2020	
Appendix III	Boron	mg/l	15.9	16.5	0.2	0.092	NA	0.018 J	0.031 J	6.8	4.5 M1	1.9
	Calcium	mg/l	114	115	14.5 J	9.3	NA	4.5	NA	NA	NA	NA
	Chloride	mg/l	NA	NA	NA	NA	NA	7.7	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	< 0.050	NA	NA	NA	NA
	Sulfate	mg/l	623	674	83.7	46.6	NA	NA	NA	NA	NA	NA
	Total Dissolved Solids	mg/l	1020	1090	209	NA	NA	139	NA	NA	NA	NA
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	NA	< 0.005	NA	< 0.00027	NA	NA	NA	NA
	Arsenic	mg/l	< 0.005	0.00094 J	< 0.005	< 0.0025	NA	< 0.00035	NA	NA	NA	NA
	Barium	mg/l	0.048	0.047	0.048	0.047	NA	0.040	NA	NA	NA	NA
	Beryllium	mg/l	0.0002 J	0.00029 J	< 0.003	< 0.001	NA	0.00037 J	NA	NA	NA	NA
	Cadmium	mg/l	0.00063 J	0.00069 J	0.00014 J	< 0.0005	NA	< 0.00011	NA	NA	NA	NA
	Chromium	mg/l	< 0.01	< 0.01	NA	NA	NA	0.00058 J	NA	NA	NA	NA
	Cobalt	mg/l	0.0053 J	0.0071 J	0.032	0.015	< 0.00030	< 0.00030	NA	NA	NA	NA
	Lead	mg/l	< 0.005	< 0.005	NA	< 0.0015	NA	< 0.000046	NA	NA	NA	NA
	Lithium	mg/l	0.033 J	0.028 J	0.0052 J	< 0.03	NA	0.0011 J	NA	NA	NA	NA
	Mercury	mg/l	< 0.0005	< 0.0005	NA	NA	NA	NA	NA	NA	NA	NA
	Molybdenum	mg/l	< 0.01	< 0.01	NA	NA	NA	< 0.00095	NA	NA	NA	NA
	Combined Radium - 226/228	pci/l	1.69	2.26	0.384 U	NA	NA	0.525 U	NA	NA	NA	NA
	Selenium	mg/l	0.21	0.33	0.0019 J	< 0.0025	NA	< 0.0013	< 0.0013	< 0.0013	NA	0.0018 J
	Thallium	mg/l	< 0.001	< 0.001	NA	< 0.001	NA	< 0.000052	NA	NA	NA	NA
Field	Conductivity	µS/cm	1193.5	1209.7	NA	NA	190	NA	94	940	NA	398
	Dissolved Oxygen	mg/l	0.22	0.42	NA	NA	2.5	NA	1.1	0.25	NA	0.31
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	0	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	105.3	228.4	NA	NA	136.9	NA	-3.7	-28.9	NA	4.8
	pH	SU	5.52	5.37	NA	NA	5.78	6.13	6.25	6.67	6.62	6.47
	Temperature	C	21	20.66	NA	NA	18.9	NA	17.4	16.4	NA	20.9
	Turbidity	ntu	2.16	1.32	NA	NA	2.4	NA	3.6	6.8	NA	4.8
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	13.1	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	53	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	53	NA	13.1	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	< 20	NA	< 5.0	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	< 0.1	NA	< 0.032	NA	NA	NA	NA
	Chloride	mg/l	4.8	4.9	12.1	6.4	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	0.23 J	< 0.3	< 0.3	< 0.1	NA	NA	NA	NA	NA	NA
	Iron (Ferric)	mg/l	NA	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	0	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	6.13	NA	2.2	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	0.41	NA	0.012 J	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	0.66	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	23.3	NA	0.94	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	20.2	NA	10.8	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YAMW-5	YAMW-5	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S
			YAMW-5 (011520)	YAMW-5 (021120)	YGWA-17S (060716)	YGWA-17S (072716)	YGWA-17S (091616)	YGWA-17S (110316)	YGWA-17S (011117)	YGWA-17S (030217)	YGWA-17S (050217)	YGWA-17S (062917)
			1/15/2020	2/11/2020	6/7/2016	7/27/2016	9/16/2016	11/3/2016	1/11/2017	3/2/2017	5/2/2017	6/29/2017
Appendix III	Boron	mg/l	8.7	7.8	< 0.05 o	0.008 J	0.0086 J	0.0077 J	0.0092 J	0.0095 J	< 0.04 o	0.0074 J
	Calcium	mg/l	NA	NA	2.2	2	1.97	1.99	2.28	2.15	1.95	2.02
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	NA	4.4	4.7	4.8	5.3	5.2	5	5	5.2
	Total Dissolved Solids	mg/l	NA	NA	28	74	67	41	104	77	142	53
Appendix IV	Antimony	mg/l	NA	NA	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	NA	NA	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	NA	NA	0.012	0.0126	0.0127	0.0128	0.0142	0.0155	0.0138	0.0128
	Beryllium	mg/l	0.00017 J	NA	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	0.00008 J	< 0.003	< 0.003
	Cadmium	mg/l	NA	NA	< 0.0025	< 0.001	< 0.001	< 0.001	0.0001 J	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	NA	NA	< 0.0025	0.0008 J	< 0.01	< 0.01	< 0.01	0.001 J	0.0007 J	0.0006 J
	Cobalt	mg/l	NA	NA	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	NA	NA	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	0.00008 J	< 0.005	0.00008 J
	Lithium	mg/l	NA	NA	< 0.005	< 0.05	< 0.05	< 0.05	0.0035 J	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	NA	NA	0.000095 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	NA	NA	0.158 U	0.0354 U	1.04	0.314 U	0.34 U	0.746 U	0.111 U	0.576 U
	Selenium	mg/l	0.045	NA	0.001 J	0.0012 J	0.0015 J	0.0015 J	0.0014 J	0.0017 J	< 0.01	< 0.01
	Thallium	mg/l	NA	NA	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	1080	NA	65.2	65.4	68.08	73	78.7	73.6	75.9	72.7
	Dissolved Oxygen	mg/l	0.72	NA	1.13	1.33	1.15	1.25	0.99	1.03	1.17	1.29
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	37	NA	118.6	56	53.74	185.6	128.4	86.9	83.6	81.3
	pH	SU	5.64	5.37	5.62	5.59	5.58	5.59	5.59	5.54	5.47	5.56
	Temperature	C	17.8	NA	19.32	21.45	18.61	19.26	17.27	17.14	16.79	19.24
	Turbidity	ntu	3.2	NA	0	1.69	1.02	3.01	2.9	4.9	2.3	3.38
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	NA	4.5	4.5	4.5	5.4	4.7	4.8	4.6	4.5
	Fluoride	mg/l	NA	NA	< 0.2	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3 *	< 0.3	< 0.3 *
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	YGWA-17S	
		YGWA-17S (100417)	YGWA-17S (032818)	YGWA-17S (061118)	YGWA-17S (092518)	YGWA-17S (030519)	YGWA-17S (040219)	YGWA-17S (092519)	YGWA-17S (101019)	YGWA-17S (021120)	YGWA-17S (032420)	
		10/4/2017	3/28/2018	6/11/2018	9/25/2018	3/5/2019	4/2/2019	9/25/2019	10/10/2019	2/11/2020	3/24/2020	
Appendix III	Boron	mg/l	0.0077 J	NA	0.01 J	0.0096 J	NA	0.0066 J	0.0081 J	NA	NA	0.0092 J
	Calcium	mg/l	2.03	NA	2.1	2.1	NA	2.5	2.6	NA	NA	2.7
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	< 0.050	< 0.050
	Sulfate	mg/l	5.3	NA	5.2	6.1	NA	5.1	5.5	NA	NA	NA
	Total Dissolved Solids	mg/l	61	NA	70	86	NA	72	81	NA	NA	71.0
Appendix IV	Antimony	mg/l	NA	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	NA	< 0.00027	< 0.00027
	Arsenic	mg/l	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	0.0022 JB	< 0.00035
	Barium	mg/l	NA	0.014	0.013	0.014	0.015	0.016	0.015	NA	0.015	0.015
	Beryllium	mg/l	NA	< 0.003	0.00009 J	0.000089 J	0.000091 J	0.00009 J	0.000081 J	NA	0.000078 J	0.000080 J
	Cadmium	mg/l	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	NA	< 0.00011	< 0.00011
	Chromium	mg/l	NA	< 0.01	NA	NA	< 0.01	NA	NA	NA	0.00087 J	0.00087 J
	Cobalt	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	NA	< 0.00030	< 0.00030
	Lead	mg/l	NA	< 0.005	NA	NA	< 0.005	< 0.005	< 0.005	NA	< 0.000046	0.000064 J
	Lithium	mg/l	NA	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.03	NA	< 0.00078	0.0034 J
	Mercury	mg/l	NA	< 0.0005	NA	< 0.0005	< 0.0005	NA	NA	NA	< 0.00014	NA
	Molybdenum	mg/l	NA	< 0.01	NA	NA	< 0.01	NA	NA	NA	< 0.00095	< 0.00095
	Combined Radium - 226/228	pci/l	NA	0.438 U	0.901 U	0.68 U	0.272 U	0.847 U	0.412 U	NA	0.461 U	0.534 U
	Selenium	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.0013	< 0.0013
	Thallium	mg/l	NA	< 0.001	NA	NA	< 0.001	< 0.001	< 0.001	NA	< 0.000052	< 0.000052
Field	Conductivity	µS/cm	NA	77.82	NA	NA	82	81.1	79.2	NA	NA	NA
	Dissolved Oxygen	mg/l	NA	1.71	NA	NA	1.49	1.49	1.01	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	105	NA	NA	129.4	185.2	187.6	NA	NA	NA
	pH	SU	5.57	5.59	5.58	5.59	5.48	5.74	5.49	NA	5.58	5.57
	Temperature	C	NA	18.94	NA	NA	15.71	17.36	21.02	NA	NA	NA
	Turbidity	ntu	NA	4.78	NA	NA	4.4	4.81	3.52	NA	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	16	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	16	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	< 1	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	0.04 J	NA	NA
	Chloride	mg/l	4.7	NA	4.9	5.6	NA	4.8	5.7	NA	NA	NA
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	NA	NA	NA
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.2	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	0	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	0.85	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	0.0085 J	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.02	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	0.38	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	11.7	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	0.62 J	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I
			YGWA-18I (060616)	YGWA-18I (072716)	YGWA-18I (091916)	YGWA-18I (110316)	YGWA-18I (011117)	YGWA-18I (030117)	YGWA-18I (042617)	YGWA-18I (062817)	YGWA-18I (100517)	YGWA-18I (032818)
			6/6/2016	7/27/2016	9/19/2016	11/3/2016	1/11/2017	3/1/2017	4/26/2017	6/28/2017	10/5/2017	3/28/2018
Appendix III	Boron	mg/l	< 0.05	< 0.1	< 0.1	< 0.1	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	NA
	Calcium	mg/l	6.2	4.73	4.76	5.25	4.74	5.37	4.28	4.95	5.28	NA
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	1.2	1.7	1.8	0.69 J	< 1 *	1.8	1.6	< 1.7 *	1.6	NA
	Total Dissolved Solids	mg/l	120	94	92	104	133	119	162	98	104	NA
Appendix IV	Antimony	mg/l	< 0.0025	0.0005 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003
	Arsenic	mg/l	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 *	< 0.005	NA	< 0.005
	Barium	mg/l	0.028	0.0294	0.0247	0.0248	0.0266	0.0275	0.024	0.0237	NA	0.024
	Beryllium	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003
	Cadmium	mg/l	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001
	Chromium	mg/l	0.0012 J	0.0007 J	< 0.01	< 0.01	< 0.01	0.0012 J	0.0005 J	0.0006 J	NA	< 0.01
	Cobalt	mg/l	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
	Lead	mg/l	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005
	Lithium	mg/l	0.0088	0.0087 J	0.0043 J	< 0.05	0.0052 J	0.0053 J	0.0041 J	0.0039 J	NA	0.0041 J
	Mercury	mg/l	< 0.0002 *	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA	< 0.0005
	Molybdenum	mg/l	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
	Combined Radium - 226/228	pci/l	0.0804 U	0.206 U	1.58	0.342 U	0.365 U	0.395 U	0.507 U	0.892	NA	0.92 U
	Selenium	mg/l	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
Thallium	mg/l	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	
Field	Conductivity	µS/cm	123.08	120.8	117.13	114.9	122.9	116.9	119.6	121	NA	129.77
	Dissolved Oxygen	mg/l	2.52	1.95	3.34	2.67	2.96	3.03	2.78	2.92	NA	3.07
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	103.2	115.2	40.84	95.5	88.2	140.4	103	83.2	NA	116.7
	pH	SU	6.17	6.14	6.04	5.97	6.05	5.94	5.99	6	6.11	6.1
	Temperature	C	18.48	22.18	18.08	18.43	16.28	17.99	17.74	17.73	NA	17.28
	Turbidity	ntu	4.44	1.71	0.68	4.56	1.92	2.64	1.41	2.06	NA	4.51
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	6.8	6.7	7	7.5	6.5	6.9	7	7	7	NA
	Fluoride	mg/l	< 0.2	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18I	YGWA-18S	YGWA-18S	YGWA-18S
			YGWA-18I (060718)	YGWA-18I (092518)	YGWA-18I (030619)	YGWA-18I (040319)	YGWA-18I (092619)	YGWA-18I (021120)	YGWA-18I (032420)	YGWA-18S (060616)	YGWA-18S (072716)	YGWA-18S (091616)
			6/7/2018	9/25/2018	3/6/2019	4/3/2019	9/26/2019	2/11/2020	3/24/2020	6/6/2016	7/27/2016	9/16/2016
Appendix III	Boron	mg/l	< 0.04	0.0046 J	NA	< 0.04	0.0062 J	NA	0.0054 J	< 0.05 o	0.0059 J	0.0079 J
	Calcium	mg/l	4.8	4.6	NA	5.3	4.9	NA	5.3	1.4	1.19	1.5
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	7.0	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	< 0.050	< 0.050	NA	NA	NA
	Sulfate	mg/l	0.68 J	1	NA	0.82 J	0.64 J	NA	NA	1.8	1.9	1.7
	Total Dissolved Solids	mg/l	68	109	NA	89	126	NA	91.0	58	35	35
Appendix IV	Antimony	mg/l	NA	NA	< 0.003	< 0.003	0.00056 J	< 0.00027	< 0.00027	< 0.0025	< 0.003	< 0.003
	Arsenic	mg/l	0.00066 J	< 0.005	< 0.005	< 0.005	< 0.005	0.0014 JB	< 0.00035	< 0.0013	< 0.005	< 0.005
	Barium	mg/l	0.023	0.023	0.024	0.025	0.021	0.022	0.021	0.019	0.0167	0.0168
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.000074	< 0.000074	< 0.0025	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001
	Chromium	mg/l	NA	NA	< 0.01	NA	NA	0.0010 J	0.00095 J	< 0.0025	0.0006 J	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030	0.00061 J	0.0004 J	0.0008 J
	Lead	mg/l	NA	NA	< 0.005	< 0.005	< 0.005	< 0.000046	0.000071 J	< 0.0013	< 0.005	< 0.005
	Lithium	mg/l	0.0032 J	0.0036 J	0.0033 J	0.0035 J	0.0032 J	0.0033 J	0.0033 J	0.015	0.0049 J	0.0031 J
	Mercury	mg/l	NA	< 0.0005	< 0.0005	NA	NA	< 0.00014	NA	< 0.0002 *	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	< 0.01	NA	NA	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.668 U	0.141 U	0.714 U	0.385 U	0.386 U	1.48	0.632 U	0.301 U	0.196 U	0.915 U
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01
	Thallium	mg/l	NA	NA	< 0.001	< 0.001	< 0.001	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	NA	90.2	119.2	108.9	NA	NA	68.85	60	NA
	Dissolved Oxygen	mg/l	NA	NA	4.38	3.5	3.2	NA	NA	1.89	1.35	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	0	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	NA	99.1	163.1	120.9	NA	NA	128.4	167	NA
	pH	SU	5.98	5.81	5.99	6.29	6.04	6.07	5.98	5.71	5.46	NA
	Temperature	C	NA	NA	14.36	16.16	18.84	NA	NA	19.47	21.5	NA
	Turbidity	ntu	NA	NA	1.9	4.87	3.75	NA	NA	3.12	3.28	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	34.4	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	33	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	33	NA	34.4	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	< 20	NA	< 5.0	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	0.05 J	NA	0.085 J	NA	NA	NA
	Chloride	mg/l	6.8	7.9 o	NA	6.9	7	NA	NA	6.4	6.2	6.1
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	NA	NA	< 0.2	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	< 0.2	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	0	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	3	NA	3.1	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	0.0188	NA	0.039 J	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	2.5	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	1.01 J	NA	0.95	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	12.5	NA	12.2	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	< 0.2	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	< 1	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	
			YGWA-18S (091916)	YGWA-18S (110316)	YGWA-18S (011117)	YGWA-18S (030117)	YGWA-18S (042617)	YGWA-18S (062817)	YGWA-18S (100417)	YGWA-18S (032818)	YGWA-18S (061118)	YGWA-18S (092518)
			9/19/2016	11/3/2016	1/11/2017	3/1/2017	4/26/2017	6/28/2017	10/4/2017	3/28/2018	6/11/2018	9/25/2018
Appendix III	Boron	mg/l	NA	0.0082 J	0.0096 J	< 0.04 o	0.0091 J	0.0079 J	0.009 J	NA	0.0093 J	0.007 J
	Calcium	mg/l	NA	1.31	1.25	1.26	1.05	1.06	1.1	NA	1.4	1
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	1.9	1.7	< 1.6 *	1.9	< 1.5 *	1.7	NA	0.95 J	1.5
	Total Dissolved Solids	mg/l	NA	48	95	79	36	45	45	NA	74	63
Appendix IV	Antimony	mg/l	NA	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA
	Arsenic	mg/l	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	0.00061 J	< 0.005	< 0.005
	Barium	mg/l	NA	0.0159	0.0162	0.0195	0.0182	0.018	NA	0.021	0.019	0.019
	Beryllium	mg/l	NA	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	0.00057 J	0.00082 J
	Cadmium	mg/l	NA	< 0.001	0.0001 J	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	NA	< 0.01	< 0.01	< 0.01	0.0003 J	< 0.01	NA	< 0.01	NA	NA
	Cobalt	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
	Lead	mg/l	NA	< 0.005	< 0.005	< 0.005 *	< 0.005 *	0.0001 J	NA	< 0.005	NA	NA
	Lithium	mg/l	NA	0.0021 J	0.0025 J	0.0029 J	0.0019 J	0.0016 J	NA	0.0024 J	0.0014 J	0.0016 J
	Mercury	mg/l	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA	< 0.0005	NA	< 0.0005
	Molybdenum	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA
	Combined Radium - 226/228	pci/l	NA	0.928 U	0.502 U	0.202 U	0.264 U	0.636 U	NA	0.56 U	0.649 U	0.574 U
	Selenium	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA
Field	Conductivity	µS/cm	65.82	61.4	64	62.2	57.4	57	NA	62.67	NA	NA
	Dissolved Oxygen	mg/l	0.65	0.89	0.89	0.83	1.72	1.79	NA	2.35	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	36.38	96	129.7	133.8	160.5	99.8	NA	107.5	NA	NA
	pH	SU	5.59	5.39	5.48	5.41	5.4	5.36	5.32	5.34	5.28	4.86
	Temperature	C	18.66	19.06	16.29	18.79	19.54	19.64	NA	17.9	NA	NA
	Turbidity	ntu	2.92	2.46	1.51	4.26	4.8	7.18	NA	8.45	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	7.4	6.1	6	6.5	6.4	6.8	NA	6.8	7.8
	Fluoride	mg/l	NA	< 0.3	< 0.3	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-18S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	
		YGWA-18S (030519)	YGWA-18S (040319)	YGWA-18S (092619)	YGWA-18S (021120)	YGWA-18S (032420)	YGWA-20S (060716)	YGWA-20S (072716)	YGWA-20S (091916)	YGWA-20S (110216)	YGWA-20S (011317)	
		3/5/2019	4/3/2019	9/26/2019	2/11/2020	3/24/2020	6/7/2016	7/27/2016	9/19/2016	11/2/2016	1/13/2017	
Appendix III	Boron	mg/l	NA	0.0053 J	0.0072 J	NA	0.010 J	< 0.05	< 0.1	< 0.1	< 0.1	< 0.04
	Calcium	mg/l	NA	1.2	1.1	NA	1.0	2.3	2.08	1.97	2.13	2.45
	Chloride	mg/l	NA	NA	NA	NA	6.8	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	< 0.050	< 0.050	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	1.3	1	NA	NA	< 1	0.08 J	0.08 J	0.1 J	< 1 *
	Total Dissolved Solids	mg/l	NA	63	72	NA	59.0	38	74	45	53	46
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.00027	< 0.00027	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	0.0026 JB	< 0.00035	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.02	0.017	0.017	0.019	0.017	0.014	0.0141	0.0155	0.0157	0.0158
	Beryllium	mg/l	0.000079 J	0.000075 J	0.000084 J	0.000076 J	0.000089 J	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	NA	NA	0.00088 J	0.0011 J	< 0.0025	0.0005 J	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.000046	0.000054 J	< 0.0013	< 0.005	< 0.005	0.0013 J	< 0.005
	Lithium	mg/l	0.0031 J	0.0028 J	0.0029 J	0.0050 J	0.0035 J	< 0.005	< 0.05	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	NA	NA	< 0.00014	NA	0.000096 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	NA	NA	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.474 U	0.429 U	0.222 U	0.597 U	0.262 U	0.0191 U	0.541 U	0.826 U	0.791 U	0.296 U
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	61.6	60.7	60.6	NA	NA	51.5	50.9	50.15	53.5	59.3
	Dissolved Oxygen	mg/l	3.37	4.01	1.21	NA	NA	5.26	5.23	5.29	5.29	5.83
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	0	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	128.1	215.4	145.8	NA	NA	116.9	60.1	53.3	82.2	109.1
	pH	SU	5.26	5.47	5.2	5.30	5.33	5.77	5.79	5.73	5.67	5.79
	Temperature	C	15.2	14.35	18.46	NA	NA	17.9	23.48	19.04	19.14	19.59
	Turbidity	ntu	9.3	3.58	4.87	NA	NA	4.44	1.95	1.91	4.66	4.04
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	6.7	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	7	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	7	NA	6.7	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	< 1	NA	< 5.0	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	0.0648 J	NA	0.29	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	6.3	7.1	NA	NA	1.9	1.9	1.9	2.6	2.3
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	NA	NA	< 0.2	< 0.3	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	0	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	1.25	NA	1.2	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	0.0122	NA	0.0095 J	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	1.7	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	< 5	NA	0.55	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	8.24	NA	8.3	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	0.55 J	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-20S
			YGWA-20S (030617)	YGWA-20S (042617)	YGWA-20S (062917)	YGWA-20S (100417)	YGWA-20S (032918)	YGWA-20S (060618)	YGWA-20S (092518)	YGWA-20S (030519)	YGWA-20S (040319)	YGWA-20S (092519)
			3/6/2017	4/26/2017	6/29/2017	10/4/2017	3/29/2018	6/6/2018	9/25/2018	3/5/2019	4/3/2019	9/25/2019
Appendix III	Boron	mg/l	< 0.04	< 0.04	< 0.04	< 0.04	NA	0.0049 J	< 0.04	NA	< 0.04	< 0.04
	Calcium	mg/l	2.48	2.3	2.54	2.25	NA	2.3	2.3	NA	2.9	2.4
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	< 1	< 1	< 1 *	< 1 *	NA	0.049 J	0.13 J	NA	0.12 J	< 1
	Total Dissolved Solids	mg/l	164	34	68	54	NA	79	73	NA	57	75
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.0163	0.0177	0.017	NA	0.014	0.015	0.015	0.016	0.018	0.014
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	0.00008 J	0.000061 J	0.00011 J	0.000064 J	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01 *	0.0007 J	0.0005 J	NA	< 0.01	NA	NA	< 0.01	NA	NA
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	< 0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005 *	< 0.0005	< 0.0005 *	NA	< 0.0005	NA	< 0.0005	< 0.0005	NA	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA
	Combined Radium - 226/228	pci/l	0.518 U	0.282 U	1.12	NA	1.73	0.694 U	0.772 U	0.84 U	1.01	1.18 U
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	57	57.2	59.2	NA	55.1	NA	NA	62.6	62.2	56.3
	Dissolved Oxygen	mg/l	6.11	6.16	6.8	NA	5.63	NA	NA	5.21	5.74	6.55
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	139.6	68	100	NA	82.4	NA	NA	92.4	223.4	249.5
	pH	SU	5.63	5.66	5.85	5.83	5.93	5.86	5.84	6.07	5.71	5.86
	Temperature	C	17.05	17.23	19.28	NA	17.58	NA	NA	15.48	17.29	19.15
	Turbidity	ntu	4.28	3.71	4.76	NA	4.86	NA	NA	4.5	4.85	4.77
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	1.9	2	2.6	2.6	NA	2.7	3.6	NA	3.1	2.8
	Fluoride	mg/l	< 0.3 *	< 0.3	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-20S	YGWA-20S	YGWA-20S	YGWA-21I	YGWA-21I	YGWA-21I	YGWA-21I	YGWA-21I	YGWA-21I	YGWA-21I
			YGWA-20S (101019)	YGWA-20S (021220)	YGWA-20S (032420)	YGWA-21I (060716)	YGWA-21I (072816)	YGWA-21I (091916)	YGWA-21I (110316)	YGWA-21I (011317)	YGWA-21I (030617)	YGWA-21I (042617)
			10/10/2019	2/12/2020	3/24/2020	6/7/2016	7/28/2016	9/19/2016	11/3/2016	1/13/2017	3/6/2017	4/26/2017
Appendix III	Boron	mg/l	NA	NA	< 0.0049	< 0.05	< 0.1 *	< 0.1	< 0.1	< 0.04	< 0.04	< 0.04
	Calcium	mg/l	NA	NA	2.6	3.7	3.15	3.17	3.4	4.98	6.28	6.65
	Chloride	mg/l	NA	NA	2.7	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	< 0.050M1	< 0.050	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	NA	NA	5.2	5.1	4.8	5	4.3	4.5	4.9
	Total Dissolved Solids	mg/l	NA	NA	76.0	60	81	68	61	76	167	50
Appendix IV	Antimony	mg/l	NA	< 0.00027	< 0.00027	< 0.0025	< 0.003	0.001 J	< 0.003	< 0.003	0.0005 J	< 0.003
	Arsenic	mg/l	NA	< 0.00035	< 0.00035	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	0.0017 J	< 0.005 *
	Barium	mg/l	NA	0.014	0.015	0.0058	0.0068 J	0.0071 J	0.0092 J	0.0105	0.0105	0.011
	Beryllium	mg/l	NA	0.000078 J	0.000076 J	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	NA	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	NA	0.00045 J	0.00077 J	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 *	< 0.01
	Cobalt	mg/l	NA	< 0.00030	< 0.00030	0.0056	0.0032 J	0.0047 J	0.013	0.011	0.011	0.009 J
	Lead	mg/l	NA	< 0.000046	0.00011 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	NA	< 0.00078	< 0.00078	0.0055	0.0045 J	0.0054 J	< 0.05 o	0.0062 J	0.0059 J	0.0054 J
	Mercury	mg/l	NA	< 0.00014	NA	0.000096 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005 *	< 0.0005
	Molybdenum	mg/l	NA	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	0.0007 J	0.0008 J
	Combined Radium - 226/228	pci/l	NA	1.11 U	1.88	0.347	0.815 U	0.862 U	0.797 U	0.72 U	0.518 U	1.13 U
	Selenium	mg/l	NA	< 0.0013	< 0.0013	0.00048 J	< 0.01	0.0014 J	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	NA	NA	94.7	91.9	89.32	94.8	132.1	130.9	134.7
	Dissolved Oxygen	mg/l	NA	NA	NA	1.69	1.68	1.22	0.77	0.19	0.33	0.24
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	NA	NA	87.7	44.7	8.51	45.3	-12.8	12.3	33.1
	pH	SU	NA	6.0	5.86	6.1	6.12	6.12	6.07	6.41	6.34	6.32
	Temperature	C	NA	NA	NA	20.91	19.27	20.73	18.73	18.88	19	19.48
	Turbidity	ntu	NA	NA	NA	1.24	0.3	1.61	0.92	1.45	1.91	0.76
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	22	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	22	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	0.065 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	NA	NA	2.8	2.6	2.4	2.9	2.5	2.1	2.1
	Fluoride	mg/l	NA	NA	NA	< 0.2	0.02 J	0.02 J	< 0.3 *	< 0.3	< 0.3 *	0.04 J
	Iron (Ferric)	mg/l	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	< 0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	< 0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	0.59	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	8.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Appendix III	Analyte	Units	YGWA-211	YGWA-211	YGWA-211	YGWA-211	YGWA-211	YGWA-211	YGWA-211	YGWA-211	YGWA-211	YGWA-211
			YGWA-211 (062917)	YGWA-211 (100317)	YGWA-211 (032918)	YGWA-211 (060518)	YGWA-211 (092518)	YGWA-211 (030519)	YGWA-211 (040219)	YGWA-211 (092419)	YGWA-211 (101019)	YGWA-211 (021220)
			6/29/2017	10/3/2017	3/29/2018	6/5/2018	9/25/2018	3/5/2019	4/2/2019	9/24/2019	10/10/2019	2/12/2020
	Boron	mg/l	< 0.04	< 0.04	NA	0.0092 J	0.0054 J	NA	0.011 J	0.018 J	NA	NA
	Calcium	mg/l	6.04	8.28	NA	9.1	10.4 J	NA	8.8	7.7	NA	NA
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10 J
	Sulfate	mg/l	5.5	5.8	NA	6.1	7	NA	3.8	1	NA	NA
	Total Dissolved Solids	mg/l	94	149	NA	109	122	NA	134	157	NA	NA
Appendix IV	Antimony	mg/l	< 0.003	NA	< 0.003	NA	NA	0.0011 J	0.0011 J	0.0035	NA	0.0015 J
	Arsenic	mg/l	< 0.005 *	NA	0.0015 J	0.0013 J	0.0022 J	0.0013 J	0.00096 J	0.0026 J	NA	0.0025 J
	Barium	mg/l	0.0109	NA	< 0.01	0.011	0.011	0.011	0.011	0.011	NA	0.011
	Beryllium	mg/l	< 0.003	NA	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.000074
	Cadmium	mg/l	< 0.001	NA	< 0.001	< 0.001	0.000096 J	< 0.001	< 0.001	< 0.0025	NA	< 0.00011
	Chromium	mg/l	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA	NA	< 0.00039
	Cobalt	mg/l	0.0093 J	NA	< 0.01	0.0041 J	0.0044 J	0.0039 J	0.0039 J	0.0032 J	NA	0.0081
	Lead	mg/l	< 0.005	NA	< 0.005	NA	NA	< 0.005	< 0.005	< 0.005	NA	< 0.000046
	Lithium	mg/l	0.0047 J	NA	0.0062 J	0.0061 J	0.0062 J	0.0053 J	0.0051 J	0.0068 J	NA	0.0065 J
	Mercury	mg/l	< 0.0005	NA	< 0.0005	NA	< 0.0005	< 0.0005	NA	NA	NA	< 0.00014
	Molybdenum	mg/l	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA	NA	< 0.00095
	Combined Radium - 226/228	pci/l	0.841 U	NA	1.91	1.39	1.62	0.985 U	1.42	1.35	NA	1.61
	Selenium	mg/l	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.0013
	Thallium	mg/l	< 0.001	NA	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.000052
Field	Conductivity	µS/cm	148.6	NA	150.3	NA	NA	221.7	202.7	196.9	NA	NA
	Dissolved Oxygen	mg/l	0.25	NA	0.26	NA	NA	0.18	0.25	0.34	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	-16.7	NA	-5.7	NA	NA	-140.9	-97.7	-59.9	NA	NA
	pH	SU	6.47	6.56	6.75	6.09	6.67	7.22	6.94	6.87	NA	7.13
	Temperature	C	22.53	NA	17.52	NA	NA	13.76	17.64	23.37	NA	NA
	Turbidity	ntu	2.53	NA	0.94	NA	NA	0.56	0.5	1.29	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	62	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	62	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	< 20	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	< 0.1	NA
	Chloride	mg/l	2.8	2.2	NA	1.7	2.2	NA	2.5	3.1	NA	NA
	Fluoride	mg/l	< 0.3 *	< 0.3 *	< 0.3	0.13 J	0 J	0.32	0.12 J	0.15 J	NA	NA
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	0.6	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	1	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	3.3	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	0.34	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	0.048 J	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	< 0.02	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	2.9	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	17.1	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	2.2	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-211	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39
			YGWA-211 (032420)	YGWA-39 (101117)	YGWA-39 (112017)	YGWA-39 (011118)	YGWA-39 (022018)	YGWA-39 (040318)	YGWA-39 (062818)	YGWA-39 (080718)	YGWA-39 (092418)	YGWA-39 (032719)
			3/24/2020	10/11/2017	11/20/2017	1/11/2018	2/20/2018	4/3/2018	6/28/2018	8/7/2018	9/24/2018	3/27/2019
Appendix III	Boron	mg/l	0.016 J	0.0135 J	0.0251 J	0.0255 J	< 0.04	0.033 J	0.053	0.024 J	0.028 J	0.017 J
	Calcium	mg/l	6.0	2.74	1.81	1.54	1.71	1.4	1.4	1.2	1.1	1.5
	Chloride	mg/l	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	0.081 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	20	24	23	20.6	24.5	22	20.7	21.2	17.7
	Total Dissolved Solids	mg/l	117	68	139	153	87	85	88	89	82	75
Appendix IV	Antimony	mg/l	0.0017 J	0.0006 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Arsenic	mg/l	0.0013 J	0.0009 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Barium	mg/l	0.011	0.0092 J	0.0081 J	0.0077 J	< 0.01	< 0.01	0.0078 J	0.0078 J	0.0071 J	NA
	Beryllium	mg/l	< 0.000074	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Cadmium	mg/l	< 0.00011	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
	Chromium	mg/l	< 0.00039	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Cobalt	mg/l	0.0061	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Lead	mg/l	< 0.000046	0.0001 J	< 0.005	0.0002 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Lithium	mg/l	0.0064 J	0.0018 J	0.0018 J	0.0019 J	< 0.05 o	0.0022 J	0.0026 J	0.0024 J	0.0022 J	NA
	Mercury	mg/l	NA	< 0.0005	0.00007 J	< 0.0005	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA
	Molybdenum	mg/l	< 0.00095	0.0094 J	0.0081 J	0.0074 J	< 0.01	0.006 J	0.005 J	0.0045 J	0.0035 J	NA
	Combined Radium - 226/228	pci/l	1.24 U	0.586 U	0.816 U	0.841 U	1.58	0.385 U	0.283 U	0.332 U	0.767 U	NA
	Selenium	mg/l	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0015 J	NA
	Thallium	mg/l	< 0.000052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
Field	Conductivity	µS/cm	NA	107.9	96.2	97.8	87.7	89.9	79.1	73.4	80.4	80.9
	Dissolved Oxygen	mg/l	NA	0.2	2.69	3.93	0.98	4.7	4.22	3.94	3.93	2.17
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	184.4	74.9	-1.4	94.5	107.7	163.9	127.8	105.1	110.8
	pH	SU	6.35	6.4	6.33	6.29	7.22	6.87	6.18	6.08	5.81	5.84
	Temperature	C	NA	24.83	18.12	16.78	17.77	18.52	20.7	19.75	18.74	17.71
	Turbidity	ntu	NA	4.07	4.32	1.96	3.33	4.87	1.8	1.24	1.88	1.1
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	2.4	1.8	1.6	2	3.3	2.1	1.2	1.3	1.4
	Fluoride	mg/l	NA	< 0.3	< 0.3	< 0.3	0.23	< 0.3	< 0.3	0.048 J	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	
		YGWA-39 (082119)	YGWA-39 (100819)	YGWA-39 (100919)	YGWA-39 (021220)	YGWA-39 (032520)	YGWA-40 (101217)	YGWA-40 (112017)	YGWA-40 (011018)	YGWA-40 (021918)	YGWA-40 (040318)	
		8/21/2019	10/8/2019	10/9/2019	2/12/2020	3/25/2020	10/12/2017	11/20/2017	1/10/2018	2/19/2018	4/3/2018	
Appendix III	Boron	mg/l	NA	NA	0.017 J	NA	0.043 J	0.0401	0.156	0.15	0.146	0.12
	Calcium	mg/l	NA	NA	2.4	NA	2.7	2.9	10.4	10.2	< 25	6.3
	Chloride	mg/l	NA	NA	NA	NA	1.9	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	< 0.050	< 0.050	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	NA	15	NA	NA	17	71	66	57.2	49.4
	Total Dissolved Solids	mg/l	NA	NA	119	NA	158	74	179	140	119	106
Appendix IV	Antimony	mg/l	< 0.003	NA	NA	< 0.00027	0.0014 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	0.00058 J	NA	0.00063 J	0.00058 J	0.0012 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.015	NA	0.013	0.011	0.014	0.0328	0.0671	0.0656	0.0598	0.045
	Beryllium	mg/l	< 0.003	NA	< 0.003	< 0.000074	< 0.000074	0.0002 J	0.0003 J	0.0003 J	< 0.003	< 0.003
	Cadmium	mg/l	< 0.0025	NA	< 0.0025	< 0.00011	< 0.00011	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	NA	< 0.01	< 0.00039	< 0.00039	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	0.00034 J	NA	< 0.005	0.00034 J	0.00034 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	NA	< 0.005	< 0.000046	0.000051 J	0.00009 J	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	0.0035 J	NA	0.0036 J	0.0041 J	0.0049 J	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	NA	NA	< 0.00014	NA	< 0.0005	0.00008 J	< 0.0005	< 0.0002	< 0.0005
	Molybdenum	mg/l	0.0021 J	NA	0.0018 J	0.0025 J	0.0020 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	1.01 U	1.02 U	NA	0.450 U	0.377 U	1.49	0.918 U	1.05	2.05	< 0.68 U
	Selenium	mg/l	< 0.01	NA	< 0.01	< 0.0013	< 0.0013	< 0.01	0.0042 J	0.0043 J	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	105.1	NA	109.4	NA	NA	73	195.6	202.5	168.7	149.5
	Dissolved Oxygen	mg/l	0.16	NA	0.1	NA	NA	3.85	5.77	5.85	5.55	5.31
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	70.9	NA	56	NA	NA	17.2	146.9	108.3	135.7	130
	pH	SU	5.96	NA	5.81	5.97	5.78	5.43	5.1	4.97	5.6	5.84
	Temperature	C	20.42	NA	20.33	NA	NA	22.91	16.7	17.38	19.82	19.23
	Turbidity	ntu	1.22	NA	1.52	NA	NA	0.9	0.55	0.38	2.25	1.5
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	NA	2.1	NA	NA	3.8	4.4	4.6	4.6	5.9
	Fluoride	mg/l	< 0.3	NA	< 0.3	NA	NA	< 0.3	< 0.3	< 0.3	< 0.1	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-41
			YGWA-40 (062818)	YGWA-40 (080718)	YGWA-40 (092418)	YGWA-40 (032619)	YGWA-40 (082119)	YGWA-40 (100819)	YGWA-40 (100919)	YGWA-40 (021220)	YGWA-40 (032420)	YGWA-41 (060216)
			6/28/2018	8/7/2018	9/24/2018	3/26/2019	8/21/2019	10/8/2019	10/9/2019	2/12/2020	3/24/2020	6/2/2016
Appendix III	Boron	mg/l	0.16	0.12	0.099	0.096	NA	NA	0.079	NA	0.088 J	< 0.05
	Calcium	mg/l	6.7	6.3	5.7	5.6	NA	NA	4.9	NA	4.8	8.8
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	4.7	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.050	< 0.050	NA
	Sulfate	mg/l	43.8	40.5	39.7	34.3	NA	NA	27.9	NA	NA	8
	Total Dissolved Solids	mg/l	112	103	107	90	NA	NA	98	NA	84.0	96
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.00027	< 0.00027	< 0.0025
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	< 0.005	0.0034 JB	< 0.00035	< 0.0013
	Barium	mg/l	0.047	0.048	0.042	NA	0.035	NA	0.036	0.035	0.033	0.013
	Beryllium	mg/l	0.00029 J	0.00024 J	0.00019 J	NA	0.0002 J	NA	0.0002 J	0.00018 J	0.00022 J	< 0.0025
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.0025	NA	< 0.0025	< 0.00011	< 0.00011	< 0.0025
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	NA	0.00053 J	NA	0.0012 J	0.00065 J	0.00055 J	< 0.0025
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.005	NA	< 0.005	< 0.00030	< 0.00030	0.00082 J
	Lead	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	< 0.005	< 0.000046	< 0.000046	< 0.0013
	Lithium	mg/l	< 0.05	< 0.05	< 0.05	NA	< 0.03	NA	< 0.03	< 0.00078	< 0.00078	0.013
	Mercury	mg/l	0.000036 J	< 0.0005	< 0.0005	NA	< 0.0005	NA	NA	< 0.00014	NA	< 0.0002
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	< 0.01	< 0.00095	< 0.00095	< 0.015
	Combined Radium - 226/228	pci/l	1.28	1.16	0.965 U	NA	1.24 U	0.866 U	NA	1.83	1.27 U	0.721
	Selenium	mg/l	0.0032 J	0.0031 J	0.0026 J	NA	0.0024 J	NA	0.0026 J	0.0020 J	0.0020 J	< 0.0013
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.0005
Field	Conductivity	µS/cm	143.6	126.1	131.1	117.5	107.3	NA	110.6	NA	NA	139.97
	Dissolved Oxygen	mg/l	5.6	5.23	5.64	5.21	5.14	NA	5.61	NA	NA	3.93
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	78.1	168.2	145.8	187	102	NA	79.6	NA	NA	95.8
	pH	SU	5.24	5.18	5.14	5.3	5.26	NA	5.22	5.30	5.29	6.36
	Temperature	C	20.25	19.36	18.15	17.23	28.01	NA	18.25	NA	NA	19.1
	Turbidity	ntu	0.38	0.77	0.78	0.25	0.55	NA	1.28	NA	NA	2.72
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	5	4.3	4.9	4.4	NA	NA	5.1	NA	NA	3.7
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	NA	< 0.3	NA	NA	< 0.2
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I
			YGWA-4I (072616)	YGWA-4I (091416)	YGWA-4I (110216)	YGWA-4I (011317)	YGWA-4I (030617)	YGWA-4I (050117)	YGWA-4I (062917)	YGWA-4I (100517)	YGWA-4I (032918)	YGWA-4I (060718)
			7/26/2016	9/14/2016	11/2/2016	1/13/2017	3/6/2017	5/1/2017	6/29/2017	10/5/2017	3/29/2018	6/7/2018
Appendix III	Boron	mg/l	0.0047 J	< 0.1	< 0.1	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	NA	0.0045 J
	Calcium	mg/l	7.69	8.49	7.83	8.08	8.64	13.4	8.81	9.29	NA	8.2
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	7.7	7.5	8.2	8.1	8	8.4	9.2	9.6	NA	8.5
	Total Dissolved Solids	mg/l	92	102	115	67	159	107	79	95	NA	90
Appendix IV	Antimony	mg/l	0.0003 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	NA
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005
	Barium	mg/l	0.0158	0.0143	0.0148	0.0146	0.0141	0.0149	0.0154	NA	0.014	0.014
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA
	Cobalt	mg/l	0.0012 J	0.0006 J	< 0.01	0.0029 J	0.0006 J	< 0.01	0.0005 J	NA	< 0.01	0.00058 J
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA
	Lithium	mg/l	0.0123 J	0.0137 J	0.0136 J	0.0121 J	0.0143 J	0.0132 J	0.0145 J	NA	0.014 J	0.013 J
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005 *	< 0.0005	< 0.0005	NA	< 0.0005	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA
	Combined Radium - 226/228	pci/l	1.26	0.901 U	1.09 U	1.19	0.669 U	0.803 U	1.35	NA	0.703 U	0.628 U
	Selenium	mg/l	0.0009 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA
Field	Conductivity	µS/cm	135.7	148.12	148.3	163.6	150.5	138.8	152.4	NA	153.97	NA
	Dissolved Oxygen	mg/l	1.45	1	0.74	0.91	0.97	1.03	1.43	NA	0.94	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	48.2	50.98	56.4	68.4	81	69.2	78.9	NA	73.6	NA
	pH	SU	6.22	6.23	6.08	6.19	6.2	6.21	6.21	6.16	6.09	6.12
	Temperature	C	18.12	18.42	17.6	16.51	17.09	17.19	19.01	NA	18.17	NA
	Turbidity	ntu	2.86	1.22	0.6	0.62	0.95	0.4	2.8	NA	1.59	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	3.6	3.4	4.5	4.2	3.6	4.3	4.2	4.7	NA	4.4
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3 *	< 0.3	< 0.3 *	< 0.3	< 0.3 *	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-4I	YGWA-5D	YGWA-5D	YGWA-5D
			YGWA-4I (092618)	YGWA-4I (030419)	YGWA-4I (040319)	YGWA-4I (092519)	YGWA-4I (101019)	YGWA-4I (021220)	YGWA-4I (032520)	YGWA-5D (060216)	YGWA-5D (072616)	YGWA-5D (091416)
			9/26/2018	3/4/2019	4/3/2019	9/25/2019	10/10/2019	2/12/2020	3/25/2020	6/2/2016	7/26/2016	9/14/2016
Appendix III	Boron	mg/l	0.005 J	NA	0.0055 J	< 0.04	NA	NA	0.011 J	< 0.05 o	0.0052 J	0.0071 J
	Calcium	mg/l	9.5 J	NA	8.4	9.5	NA	NA	10.5	33	32.3	31
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	3.9	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	< 0.050	< 0.050	NA	NA	NA
	Sulfate	mg/l	10.2	NA	8.5	8.5	NA	NA	NA	20	20	19
	Total Dissolved Solids	mg/l	116	NA	111	117	NA	NA	146	160	177	187
Appendix IV	Antimony	mg/l	NA	< 0.003	< 0.003	< 0.003	NA	< 0.00027	< 0.00027	< 0.0025	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.00035	< 0.00035	0.00071 J	0.001 J	< 0.005
	Barium	mg/l	0.02	0.016	0.017	0.015	NA	0.012	0.016	0.0084	0.01	0.0085 J
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.000074	< 0.000074	< 0.0025	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.0025	NA	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001
	Chromium	mg/l	NA	< 0.01	NA	NA	NA	< 0.00039	0.00058 J	< 0.0025	< 0.01 *	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	0.00083 J	< 0.005	NA	< 0.00030	0.00056 J	< 0.0025	< 0.01	< 0.01
	Lead	mg/l	NA	< 0.005	< 0.005	< 0.005	NA	< 0.000046	< 0.000046	< 0.0013	< 0.005	< 0.005
	Lithium	mg/l	0.014 J	0.015 J	0.014 J	0.014 J	NA	0.011 J	0.014 J	0.0049 J	0.0063 J	0.0058 J
	Mercury	mg/l	< 0.0005	< 0.0005	NA	NA	NA	< 0.00014	NA	< 0.0002	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	< 0.01	NA	NA	NA	< 0.00095	< 0.00095	0.0035 J	0.0042 J	0.0041 J
	Combined Radium - 226/228	pci/l	0.756 U	1.21 U	1.07 U	1.86	NA	1.25	0.766 U	5.11	6.92	3.96
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01
	Thallium	mg/l	NA	< 0.001	< 0.001	< 0.001	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	131.4	162.5	150	NA	NA	NA	265.1	272.2	281.56
	Dissolved Oxygen	mg/l	NA	1.36	1.3	1.48	NA	NA	NA	1.56	0.9	0.43
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	77.1	136.8	144.3	NA	NA	NA	-113.6	-132.1	-98.26
	pH	SU	5.84	6.18	6.43	6.2	NA	6.15	6.26	7.67	7.66	7.6
	Temperature	C	NA	12.9	17.76	19.9	NA	NA	NA	18.87	20.75	19.15
	Turbidity	ntu	NA	0.7	4.64	1.97	NA	NA	NA	NA	1.61	0.22
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	64	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	64	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	< 20	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	< 0.1	NA	NA	NA	NA	NA
	Chloride	mg/l	4.8	NA	4.3	4.5	NA	NA	NA	7.2	6.6	6.6
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	NA	NA	NA	0.11 J	0.05 J	0.04 J
	Iron (Ferric)	mg/l	NA	NA	NA	NA	< 0.2	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	0	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	5.7	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	0.0089 J	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	0.72	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	4.1	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	9.5	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	0.55 J	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D
			YGWA-5D (110216)	YGWA-5D (011217)	YGWA-5D (030717)	YGWA-5D (050117)	YGWA-5D (062717)	YGWA-5D (100317)	YGWA-5D (032918)	YGWA-5D (060618)	YGWA-5D (092618)	YGWA-5D (030419)
			11/2/2016	1/12/2017	3/7/2017	5/1/2017	6/27/2017	10/3/2017	3/29/2018	6/6/2018	9/26/2018	3/4/2019
Appendix III	Boron	mg/l	< 0.1 o	0.0076 J	0.0089 J	0.0061 J	0.0079 J	0.0094 J	NA	0.0098 J	0.01 J	NA
	Calcium	mg/l	30.9	35.7	32.7	37	36.5	30.9	NA	26.2	25.8	NA
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	20	19	20	20	18	16	NA	8.3	7.9	NA
	Total Dissolved Solids	mg/l	181	202	257	165	189	170	NA	151	144	NA
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	0.0012 J	< 0.005 *	0.0019 J	NA	0.0006 J	0.0013 J	0.0014 J	< 0.005
	Barium	mg/l	0.0091 J	0.0089 J	0.009 J	0.0083 J	0.0074 J	NA	< 0.01	0.008 J	0.0075 J	0.0077 J
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	< 0.01 *	0.0004 J	< 0.01	NA	< 0.01	NA	NA	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	0.0001 J	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.005
	Lithium	mg/l	0.0053 J	0.0054 J	0.0056 J	0.0031 J	0.0018 J	NA	0.0058 J	0.0068 J	0.0065 J	0.0065 J
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005 *	< 0.0005	< 0.0005	NA	< 0.0005	NA	< 0.0005	< 0.0005
	Molybdenum	mg/l	0.0039 J	0.0041 J	0.0047 J	0.0045 J	0.004 J	NA	< 0.01 o	NA	NA	< 0.01
	Combined Radium - 226/228	pci/l	4.53	4.43	4.8	4.16	2.8	NA	3.42	3.99	2.73	4.43
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001
Field	Conductivity	µS/cm	283.9	304.5	296	265	283.9	NA	241.43	NA	NA	182.1
	Dissolved Oxygen	mg/l	0.29	0.08	0.15	0.16	0.15	NA	0.15	NA	NA	0.09
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	-86.6	-131.7	-89.2	30.8	-50.8	NA	37.2	NA	NA	-117.6
	pH	SU	7.35	7.49	7.43	7.22	7.32	7.48	7.02	7.43	7.13	7.46
	Temperature	C	17.36	17.27	16.69	17.23	19.5	NA	16.82	NA	NA	12.57
	Turbidity	ntu	0.79	0.75	4.12	1	0.75	NA	1.22	NA	NA	0.5
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	7.6	6.8	6.8	7.2	7	6.5	NA	4.7	4.8	NA
	Fluoride	mg/l	< 0.3 *	0.04 J	< 0.3 *	< 0.3 *	< 0.3 *	< 0.3 *	< 0.3	0.15 J	< 0.3	0.19 J
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Appendix III	Analyte	Units	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5D	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I
			YGWA-5D (040319)	YGWA-5D (092419)	YGWA-5D (101019)	YGWA-5D (021220)	YGWA-5D (032420)	YGWA-5I (060216)	YGWA-5I (072616)	YGWA-5I (091416)	YGWA-5I (110416)	YGWA-5I (011217)
			4/3/2019	9/24/2019	10/10/2019	2/12/2020	3/24/2020	6/2/2016	7/26/2016	9/14/2016	11/4/2016	1/12/2017
	Boron	mg/l	0.0076 J	0.01 J	NA	NA	0.011 J	< 0.05	< 0.1	0.01 J	< 0.1	< 0.04
	Calcium	mg/l	24.7 J	25.8	NA	NA	26.1	2.4	2.12	2.18	2.17 J	2.37
	Chloride	mg/l	NA	NA	NA	NA	3.5	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	< 0.050	< 0.050	NA	NA	NA	NA	NA
	Sulfate	mg/l	7	5.5	NA	NA	NA	1.9	1.8	1.8	2	1.9
	Total Dissolved Solids	mg/l	142	129	NA	NA	139	66	78	73	75	86
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	NA	< 0.00027	< 0.00027	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	0.00043 J	NA	0.0046 JB	0.00065 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.0087 J	0.0075 J	NA	0.0079 J	0.0076 J	0.019	0.0179	0.0181	0.0165	0.0199
	Beryllium	mg/l	< 0.003	< 0.003	NA	< 0.000074	< 0.000074	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	NA	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001	0.00009 J
	Chromium	mg/l	NA	NA	NA	< 0.00039	< 0.00039	< 0.0025	< 0.01 *	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	NA	0.00037 J	0.00035 J	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	NA	< 0.000046	0.000054 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	0.007 J	0.0065 J	NA	0.0066 J	0.0064 J	< 0.005 o	0.0027 J	0.0029 J	< 0.05 o	0.0032 J
	Mercury	mg/l	NA	NA	NA	< 0.00014	NA	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	NA	0.0011 J	0.0011 J	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	4.79	4.06	NA	4.02	3.52	0.614	1.47	1.27	0.434 U	0.202 U
	Selenium	mg/l	< 0.01	< 0.01	NA	< 0.0013	< 0.0013	< 0.0013	0.0009 J	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	222.1	208.1	NA	NA	NA	79.6	76.9	82.31	80.5	91.1
	Dissolved Oxygen	mg/l	0.24	0.09	NA	NA	NA	6.05	5.62	6.32	5.96	6.46
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	-110	-58	NA	NA	NA	113.6	170.9	77.67	96.8	111.2
	pH	SU	7.11	6.93	NA	7.52	7.34	5.75	5.72	5.74	5.61	5.71
	Temperature	C	16.96	19.21	NA	NA	NA	19.5	23.48	19.68	17.32	17.54
	Turbidity	ntu	3	1.06	NA	NA	NA	3.53	2.75	4.1	2.4	7.3
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	95	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	95	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	< 0.1	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	4	3.7	NA	NA	NA	4.3	4.4	3.8	4.8	3.8
	Fluoride	mg/l	0.047 J	0.05 J	NA	NA	NA	< 0.2	< 0.3	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	0	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	4.3	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	0.52	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	0.01 J	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	0.041	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	3.5	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	8.5	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	0.62 J	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-5I	
			YGWA-5I (030717)	YGWA-5I (050217)	YGWA-5I (062717)	YGWA-5I (100317)	YGWA-5I (032918)	YGWA-5I (060718)	YGWA-5I (092618)	YGWA-5I (030419)	YGWA-5I (040319)	YGWA-5I (092419)
			3/7/2017	5/2/2017	6/27/2017	10/3/2017	3/29/2018	6/7/2018	9/26/2018	3/4/2019	4/3/2019	9/24/2019
Appendix III	Boron	mg/l	< 0.04	< 0.04	< 0.04	< 0.04	NA	< 0.04	0.0057 J	NA	0.0044 J	0.0049 J
	Calcium	mg/l	2.34	2.17	2.13	2.15	NA	2.3	2.3	NA	2.8	2.5
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	2.1	2	2.1	2.3	NA	2	2.3	NA	2.1	2.4
	Total Dissolved Solids	mg/l	108	103	73	89	NA	142	86	NA	83	79
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005 *	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.0196	0.0202	0.0184	NA	0.021	0.019	0.019	0.019	0.023	0.019
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0	< 0.001	< 0.001	< 0.0025
	Chromium	mg/l	< 0.01 *	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005
	Lead	mg/l	0.00007 J	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.005	< 0.005	0.00009 J
	Lithium	mg/l	0.0035 J	0.0031 J	0.0029 J	NA	0.0034 J	0.0032 J	0.0032 J	0.0032 J	0.0035 J	0.0031 J
	Mercury	mg/l	< 0.0005 *	< 0.0005	< 0.0005	NA	< 0.0005	NA	< 0.0005	< 0.0005	NA	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA
	Combined Radium - 226/228	pci/l	0.0674 U	0.444 U	0.77 U	NA	0.648 U	0.745 U	0.377 U	1 U	0.43 U	0.699 U
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	92.7	89.8	88.4	NA	92.02	NA	NA	75.1	91	84.6
	Dissolved Oxygen	mg/l	6.48	6.52	5.97	NA	6.28	NA	NA	6.43	6.1	5.76
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	112.2	109.8	109.4	NA	46.3	NA	NA	108	123	77.3
	pH	SU	5.66	5.65	5.7	5.79	5.63	5.63	5.63	5.75	5.63	5.6
	Temperature	C	16.68	16.5	20.44	NA	16.83	NA	NA	14.36	16.87	18.32
	Turbidity	ntu	4.85	147	0.84	NA	4.21	NA	NA	0.9	4.1	4.77
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	4.5	4.6	4.3	4.2	NA	4.5	5.1	NA	4.2	4.5
	Fluoride	mg/l	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWA-5I	YGWA-5I	YGWA-5I	YGWA-6I	YGWA-6I	YGWA-6I	YGWA-6I	YGWA-6I	YGWA-6I
			YGWA-5I (101019)	YGWA-5I (021220)	YGWA-5I (032420)	YGWA-6I (060616)	YGWA-6I (072716)	YGWA-6I (091516)	YGWA-6I (110216)	YGWA-6I (011317)	YGWA-6I (030217)
			10/10/2019	2/12/2020	3/24/2020	6/6/2016	7/27/2016	9/15/2016	11/2/2016	1/13/2017	3/2/2017
Appendix III	Boron	mg/l	NA	NA	0.0068 J (0.0056 J)	< 0.05 *	0.0533 J	0.062 J	0.0569 J	0.0624	0.0614
	Calcium	mg/l	NA	NA	2.5 (2.4)	9.7	7.79	8.23	8.49	9.2	9.27
	Chloride	mg/l	NA	NA	4.3 (4.3)	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	< 0.050 (< 0.050)	< 0.050 (< 0.050)	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	NA	NA	53	55	53	55	54	51
	Total Dissolved Solids	mg/l	NA	NA	68.0 (113 D6)	170	194	156	142	163	165
	Appendix IV	Antimony	mg/l	NA	< 0.00027 (< 0.00027)	< 0.00027 (< 0.00027)	< 0.0025	0.001 J	0.001 J	< 0.003	< 0.003
Arsenic		mg/l	NA	0.0020 JB (0.00094 JB)	< 0.00035 (< 0.00035)	0.00086 J	0.001 J	< 0.005	< 0.005	< 0.005	0.001 J
Barium		mg/l	NA	0.021 (0.023)	0.021 (0.020)	0.025	0.0254	0.0215	0.0244	0.0259	0.0284
Beryllium		mg/l	NA	< 0.000074 (< 0.000074)	< 0.000074 (< 0.000074)	0.00095 J	< 0.003	< 0.003	< 0.003	< 0.003	0.0001 J
Cadmium		mg/l	NA	< 0.00011 (< 0.00011)	< 0.00011 (< 0.00011)	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium		mg/l	NA	0.00043 J (0.00075 J)	0.0014 J (0.00092 J)	< 0.0025	0.0011 J	< 0.01	< 0.01	< 0.01	0.0006 J
Cobalt		mg/l	NA	< 0.00030 (< 0.00030)	< 0.00030 (< 0.00030)	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Lead		mg/l	NA	< 0.000046 (< 0.000046)	0.000068 J (0.000062 J)	< 0.0013	< 0.005	0.0001 J	0.0002 J	0.0001 J	0.0004 J
Lithium		mg/l	NA	0.0032 J (0.0033 J)	0.0033 J (0.0033 J)	0.0068	0.0072 J	0.0075 J	0.0076 J	0.0081 J	0.0079 J
Mercury		mg/l	NA	< 0.00014 (< 0.00014)	NA	< 0.0002 *	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Molybdenum		mg/l	NA	< 0.00095 (< 0.00095)	< 0.00095 (< 0.00095)	< 0.015	0.0009 J	< 0.01	< 0.01	< 0.01	0.001 J
Combined Radium - 226/228		pci/l	NA	0.913 U (1.08 U)	1.37 (0.705 U)	2.11	1.61	2.42	1.56	1.89	1.4
Selenium		mg/l	NA	< 0.0013 (< 0.0013)	< 0.0013 (< 0.0013)	0.0014	0.002 J	0.001 J	0.001 J	0.0016 J	0.0018 J
Thallium		mg/l	NA	< 0.000052 (< 0.000052)	< 0.000052 (< 0.000052)	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	NA	NA	219	233.2	236.03	234.4	241.3	233.3
	Dissolved Oxygen	mg/l	NA	NA	NA	4.44	3.84	1.61	1.72	1	1.44
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	NA	NA	104.8	50.7	23.79	178.5	96	93.7
	pH	SU	NA	5.83 (NA)	5.81 (NA)	6.5	6.4	6.43	6.4	6.34	6.32
	Temperature	C	NA	NA	NA	19.41	19.99	21.51	21.55	20.34	18.85
	Turbidity	ntu	NA	NA	NA	0.92	2.75	4.22	7.56	4.76	14
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	26	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	26	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	< 20	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	0.062 J	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	NA	NA	6.6	6.1	6.3	7.5	7.5	6.6
	Fluoride	mg/l	NA	NA	NA	< 0.2	< 0.3	< 0.3	< 0.3 *	0.05 J	< 0.3 *
	Iron (Ferric)	mg/l	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	0	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	2.5	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	< 0.04	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	1.6	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	< 0.02	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	1.5	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	9.8	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	< 1	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWA-6I	YGWA-6I	YGWA-6S	YGWA-6S	YGWA-6S	YGWA-6S	YGWA-6S	YGWA-6S	YGWA-6S	YGWA-6S	
		YGWA-6I (050117)	YGWA-6I (062917)	YGWA-6S (060316)	YGWA-6S (072716)	YGWA-6S (091516)	YGWA-6S (110316)	YGWA-6S (011317)	YGWA-6S (030317)	YGWA-6S (050117)	YGWA-6S (062917)	
		5/1/2017	6/29/2017	6/3/2016	7/27/2016	9/15/2016	11/3/2016	1/13/2017	3/3/2017	5/1/2017	6/29/2017	
Appendix III	Boron	mg/l	0.0538	0.0612	0.032 J	0.0378 J	0.0482 J	0.0568 J	0.0554	0.0589	0.0478	0.0538
	Calcium	mg/l	13.1	8.92	3.4	2.85	3.79	4.9	6.45	5.67	9.82	5.86
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	54	65	18	17	22	28	32	29	30	31
	Total Dissolved Solids	mg/l	172	169	70	75	86	70	100	97	121	102
Appendix IV	Antimony	mg/l	0.0004 J	< 0.003	< 0.0025	< 0.003	< 0.003	0.0016 J	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005 *	< 0.005 *	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.0225	0.0246	0.011	0.0107	0.0142	0.0161	0.0211	0.0212	0.019	0.0201
	Beryllium	mg/l	< 0.003	< 0.003	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	0.0006 J	0.0011 J	0.0015 J	0.0021 J	0.0034 J	0.0056 J	0.007 J	0.0056 J	0.0071 J
	Cobalt	mg/l	< 0.01	< 0.01	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	0.0002 J	0.0003 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	0.0077 J	0.0081 J	< 0.005	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	0.0004 J	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	1.74	1.46	0.241 U	0.559 U	1.56	0.0934 U	0.749 U	0.463 U	0.355 U	0.978
	Selenium	mg/l	0.0015 J	< 0.01	< 0.0013	< 0.01	0.0011 J	0.0013 J	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	234.8	233.3	85.33	86.2	104.92	136.1	152.7	146	137.3	141.7
	Dissolved Oxygen	mg/l	4.88	2.89	7.02	6.49	6.26	6.3	7.01	7.04	6.89	6.83
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	12.7	64.7	105.1	78.4	78.63	162.6	105.9	104.3	31.2	83.5
	pH	SU	6.22	6.3	6	5.9	5.92	5.85	5.93	5.87	5.86	5.91
	Temperature	C	21.19	21.11	18.61	20.83	18.71	17.45	19.18	14.87	20.26	20.41
	Turbidity	ntu	4.94	9.93	0.9	1.31	1.35	2.26	0.96	0.91	0.72	1.71
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	7.6	7.8	2.1	2	2.1	3	2.9	2.7	2.9	3
	Fluoride	mg/l	< 0.3	< 0.3 *	< 0.2	< 0.3	< 0.3	< 0.3 *	< 0.3	< 0.3 *	< 0.3	0.07 J
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-19S	YGWC-19S	YGWC-19S	YGWC-19S	YGWC-19S	YGWC-19S	YGWC-19S	YGWC-19S	YGWC-19S	YGWC-22S	
		YGWC-19S (060716)	YGWC-19S (072816)	YGWC-19S (091916)	YGWC-19S (110916)	YGWC-19S (011617)	YGWC-19S (030917)	YGWC-19S (050217)	YGWC-19S (071017)	YGWC-19S (101017)	YGWC-22S (060716)	
		6/7/2016	7/28/2016	9/19/2016	11/9/2016	1/16/2017	3/9/2017	5/2/2017	7/10/2017	10/10/2017	6/7/2016	
Appendix III	Boron	mg/l	< 0.05 *	< 0.1	0.0066 J	< 0.04 *	< 0.04	< 0.04	< 0.04	< 0.04 *	< 0.04	5.2
	Calcium	mg/l	1.1	0.988	1.03	1.07	0.943	0.936	0.923	0.964	0.895	55
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	< 1	< 1 *	0.4 J	< 1 *	< 1 *	0.25 J	0.19 J	< 1 *	< 1 *	310
	Total Dissolved Solids	mg/l	26	18 J	29	40	47	306	106	24 J	< 25	470
Appendix IV	Antimony	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.0025
	Arsenic	mg/l	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	0.0005 J	< 0.005 *	< 0.005	NA	< 0.0013
	Barium	mg/l	0.007	0.0078 J	0.0077 J	0.0074 J	0.0082 J	0.0066 J	0.0072 J	0.0088 J	NA	0.017
	Beryllium	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	0.00064 J
	Cadmium	mg/l	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.0025
	Chromium	mg/l	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 *	< 0.01	< 0.01	NA	< 0.0025
	Cobalt	mg/l	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	0.0011 J
	Lead	mg/l	< 0.0013	< 0.005	0.0006 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.0013
	Lithium	mg/l	< 0.005	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA	< 0.005
	Mercury	mg/l	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005 *	< 0.0005	< 0.0005	NA	0.00017 J
	Molybdenum	mg/l	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.015
	Combined Radium - 226/228	pci/l	0.162 U	0.916 U	0.262 U	0.0543 U	0.511 U	0.279 U	0.414 U	0.76 U	NA	0.042 U
	Selenium	mg/l	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	0.025
Thallium	mg/l	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.0005	
Field	Conductivity	µS/cm	41.4	42.1	40.36	43.7	42.6	42.1	43.2	42.2	NA	554.8
	Dissolved Oxygen	mg/l	4.16	4.61	4.01	3.9	3.1	6.39	5.31	3.94	NA	3.06
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	99.8	129.9	58.33	115.7	112.8	145.2	86.1	132.1	NA	224.7
	pH	SU	5.61	5.64	5.65	5.56	5.56	5.63	5.46	5.55	5.6	4.98
	Temperature	C	19.42	18.97	19.66	17.59	18.21	19.9	18.53	19.55	NA	22.92
	Turbidity	ntu	4.19	0.64	3.07	1.46	0.96	3.4	1.45	1.32	NA	0.31
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	2.6	2.6	2.6	3	2.5	2.4	2.4	2.7	2.8	25
	Fluoride	mg/l	< 0.2	< 0.3	< 0.3	< 0.3 *	< 0.3	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.2
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-22S	YGWC-22S	YGWC-22S	YGWC-22S	YGWC-22S	YGWC-22S	YGWC-22S	YGWC-23S	YGWC-23S	YGWC-23S	
		YGWC-22S (072816)	YGWC-22S (091916)	YGWC-22S (110916)	YGWC-22S (011617)	YGWC-22S (030817)	YGWC-22S (050217)	YGWC-22S (070517)	YGWC-23S (060716)	YGWC-23S (072816)	YGWC-23S (092016)	
		7/28/2016	9/19/2016	11/9/2016	1/16/2017	3/8/2017	5/2/2017	7/5/2017	6/7/2016	7/28/2016	9/20/2016	
Appendix III	Boron	mg/l	4.3	5.22	5.11	5.9	6.57	4.02	5.98	0.99	1.09	1.35
	Calcium	mg/l	45.8	50.4	47.5	52	51.7	56.1	54.4	9.6	7.87	9.28
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	290	300	320	310	310	300	320	56	57	68
	Total Dissolved Solids	mg/l	497	504	505	507	676	476	459	130	119	132
Appendix IV	Antimony	mg/l	< 0.003	0.0017 J	< 0.003	< 0.003	< 0.003	< 0.003	0.0007 J	< 0.0025	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	0.0005 J	< 0.005 *	< 0.005	< 0.0013	< 0.005	< 0.005
	Barium	mg/l	0.0191	0.0192	0.0182	0.0188	0.0183	0.0189	0.0188	0.045	0.0511	0.0561
	Beryllium	mg/l	0.0007 J	0.0007 J	0.0007 J	0.0007 J	0.0008 J	0.0006 J	0.0007 J	< 0.0025	< 0.003	0.0001 J
	Cadmium	mg/l	0.0001 J	0.0001 J	< 0.001	0.0001 J	0.00009 J	0.0001 J	< 0.001	< 0.0025	< 0.001	< 0.001
	Chromium	mg/l	0.0005 J	< 0.01	< 0.01	< 0.01	< 0.01 *	< 0.01	< 0.01	< 0.0025	0.0008 J	< 0.01
	Cobalt	mg/l	0.0012 J	0.0012 J	0.0012 J	0.0011 J	0.0013 J	0.0011 J	0.0011 J	< 0.0025	< 0.01	< 0.01
	Lead	mg/l	0.0001 J	< 0.005	< 0.005	< 0.005	0.0001 J	0.0001 J	0.0001 J	0.0004 J	< 0.005	< 0.005
	Lithium	mg/l	0.0015 J	< 0.05	< 0.05	< 0.05	0.0017 J	0.0015 J	0.0016 J	< 0.005 o	0.0019 J	0.0021 J
	Mercury	mg/l	< 0.0005	< 0.0005	0.00007 J	0.000055 J	< 0.0005 *	0.00008 J	< 0.0005	0.000098 J	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.015	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.991 U	3.87	0.0765 U	0.468 U	0.156 U	0.163 U	0.685 U	0.303 U	0.386 U	1.47
	Selenium	mg/l	0.0224	0.0237	0.0209	0.0172	0.0171	0.0149	0.0147	0.037	0.0385	0.0464
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	0.00004 J	< 0.001	0.00006 J	< 0.0005	< 0.001	< 0.001
Field	Conductivity	µS/cm	670.7	671.41	699.4	683.7	699.1	688.8	678.8	183.96	200.1	199.66
	Dissolved Oxygen	mg/l	0.52	0.19	0.14	0.16	0.68	0.14	0.11	5.87	6.17	6.84
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	295	279.53	222	180.4	239.7	231.5	285.1	122.1	55.8	68.32
	pH	SU	4.94	4.95	4.87	4.93	4.89	4.83	4.88	5.57	5.6	5.53
	Temperature	C	21.43	22.36	20.88	19.87	19.38	19.95	21.15	19.99	24.11	18.99
	Turbidity	ntu	0.92	0.72	0.93	0.32	2.8	0.64	1.06	4.86	2.76	0.69
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	24	25	25	25	24	26	25	2.9	3.5	2.4
	Fluoride	mg/l	0.02 J	0.31	< 0.3 *	0.04 J	< 0.3 *	< 0.3 *	< 0.3	< 0.2	0.03 J	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S
			YGWC-23S (110816)	YGWC-23S (011617)	YGWC-23S (030917)	YGWC-23S (050217)	YGWC-23S (071017)	YGWC-23S (101117)	YGWC-23S (033018)	YGWC-23S (061218)	YGWC-23S (092718)	YGWC-23S (030619)
			11/8/2016	1/16/2017	3/9/2017	5/2/2017	7/10/2017	10/11/2017	3/30/2018	6/12/2018	9/27/2018	3/6/2019
Appendix III	Boron	mg/l	1.5	1.67	1.44	1.2	1.12	1.09	NA	0.9	0.71	NA
	Calcium	mg/l	8.6	8.85	8.4	12.9	8.09	6.36	NA	4.7	4.1	NA
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	79	72	69	60	57	52	NA	41.4	39.6	NA
	Total Dissolved Solids	mg/l	146	194	288	221	123	100	NA	115	105	NA
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005 *	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.054	0.0528	0.0469	0.0427	0.0395	NA	0.03	0.024	0.022	0.019
	Beryllium	mg/l	< 0.003 *	0.0001 J	0.0001 J	0.00009 J	< 0.003	NA	< 0.003	0.000081 J	0.00009 J	0.000066 J
	Cadmium	mg/l	0.00007 J	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	< 0.01 *	0.0007 J	< 0.01 *	NA	< 0.01	NA	NA	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.005
	Lithium	mg/l	0.0024 J	0.0022 J	0.0025 J	0.0019 J	0.0018 J	NA	0.0039 J	0.0017 J	0.0017 J	0.0025 J
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005 *	< 0.0005	< 0.0005	NA	< 0.0005	NA	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.01
	Combined Radium - 226/228	pci/l	0.22 U	0.147 U	0.0892 U	0.149 U	0.815 U	NA	0.659 U	1.03 U	1.06 U	0.736 U
	Selenium	mg/l	0.0521	0.0469	0.0437	0.0395	0.0386	NA	0.028	0.026	0.023	0.019
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001
Field	Conductivity	µS/cm	219.2	208.6	208.7	179.4	160.5	NA	142.1	NA	NA	74.6
	Dissolved Oxygen	mg/l	7.02	7.52	7.91	8.15	7.65	NA	8.43	NA	NA	8.68
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	113.3	124.8	132.9	180.9	63.9	NA	91.8	NA	NA	122.4
	pH	SU	5.53	5.59	5.56	5.61	5.68	5.46	5.73	5.63	5.47	5.84
	Temperature	C	18.67	19.28	17.64	18.75	19.34	NA	16.53	NA	NA	16.96
	Turbidity	ntu	4.16	2.34	2.89	1.54	1.79	NA	2.12	NA	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	2.8	1.8	1.7	1.8	1.9	2.4	NA	1.8	2	NA
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3 *	< 0.3	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-23S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S
			YGWC-23S (040419)	YGWC-23S (092719)	YGWC-23S (101019)	YGWC-23S (021720)	YGWC-23S (032620)	YGWC-24S (060816)	YGWC-24S (080116)	YGWC-24S (092016)	YGWC-24S (110816)	YGWC-24S (011717)
			4/4/2019	9/27/2019	10/10/2019	2/17/2020	3/26/2020	6/8/2016	8/1/2016	9/20/2016	11/8/2016	1/17/2017
Appendix III	Boron	mg/l	0.6	0.58	NA	NA	0.94	< 0.05	< 0.1 *	< 0.1 *	< 0.04 *	< 0.04 *
	Calcium	mg/l	3.7	3.7	NA	NA	5.6	1.9	1.83	1.78	1.77	1.7
	Chloride	mg/l	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	< 0.050	< 0.050	NA	NA	NA	NA	NA
	Sulfate	mg/l	27.9	30.3	NA	NA	NA	< 1	1.1	0.38 J	0.39 J	< 1 *
	Total Dissolved Solids	mg/l	85	96	NA	NA	110	66	56	53	58	56
Appendix IV	Antimony	mg/l	< 0.003	0.00029 J	NA	< 0.00027	< 0.00027	< 0.0025	< 0.003	0.0009 J	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	NA	0.0019 J	0.0012 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.019	0.018	NA	0.024	0.027	0.02	0.02	0.0203	0.0191	0.0192
	Beryllium	mg/l	0.000072 J	0.000077 J	NA	0.000081 J	0.000090 J	< 0.0025	0.0001 J	0.0001 J	< 0.003 *	0.0001 J
	Cadmium	mg/l	< 0.001	< 0.0025	NA	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	NA	NA	NA	0.00087 J	0.0019 J	< 0.0025 *	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	< 0.01	< 0.005	NA	< 0.00030	< 0.00030	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	0.00013 J	NA	< 0.000046	< 0.000046	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	0.0018 J	0.0017 J	NA	0.0021 J	0.0021 J	< 0.005	< 0.05	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	NA	NA	NA	< 0.00014	NA	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	NA	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.474 U	0.684 U	NA	1.46	0.281 U	1.06	0.467 U	0.853 U	0.433 U	0.0759 U
	Selenium	mg/l	0.017	0.018	NA	0.020	0.024	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	87.9	100.87	NA	NA	NA	61.9	66.3	65.58	65.9	66.2
	Dissolved Oxygen	mg/l	8.23	8.6	NA	NA	NA	6.57	5.65	6.19	5.44	5.79
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	146.9	105.5	NA	NA	NA	139.8	82.6	57.14	111.5	110
	pH	SU	5.64	5.77	NA	5.84	5.69	5.65	5.47	5.61	5.55	5.53
	Temperature	C	18.07	19.03	NA	NA	NA	19.01	21.51	20.22	17.84	18.21
	Turbidity	ntu	4.8	2.01	NA	NA	NA	2.42	0.9	3.45	0.3	0.15
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	7	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	7	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	0.078 J	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	1.7	1.7	NA	NA	NA	5.9	5.3	5.5	6.4	5.5
	Fluoride	mg/l	0.049 J	0.12 J	NA	NA	NA	< 0.2	< 0.3	< 0.3	< 0.3 *	< 0.3
	Iron (Ferric)	mg/l	NA	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	0	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	3.1	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	< 0.04	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	0.081	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	0.72	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	7	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	
		YGWC-24S (030817)	YGWC-24S (050217)	YGWC-24S (070717)	YGWC-24S (100517)	YGWC-24S (033018)	YGWC-24S (061218)	YGWC-24S (092618)	YGWC-24S (030519)	YGWC-24S (040419)	YGWC-24S (040919)	
		3/8/2017	5/2/2017	7/7/2017	10/5/2017	3/30/2018	6/12/2018	9/26/2018	3/5/2019	4/4/2019	4/9/2019	
Appendix III	Boron	mg/l	< 0.04	0.0099 J	0.0076 J	< 0.04	NA	0.018 J	0.0055 J	NA	< 0.04	NA
	Calcium	mg/l	1.77	1.57	1.8	1.7	NA	1.8	1.7	NA	1.9	NA
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	0.29 J	0.29 J	0.37 J	< 1 *	NA	0.35 J	0.28 J	NA	0.29 J	NA
	Total Dissolved Solids	mg/l	192	113	46	48	NA	79	59	NA	63	NA
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003	< 0.003	NA
	Arsenic	mg/l	< 0.005	< 0.005 *	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Barium	mg/l	0.0189	0.019	0.019	NA	0.02	0.018	0.019	0.019	0.02	NA
	Beryllium	mg/l	0.0001 J	0.0001 J	0.0001 J	NA	< 0.003	0.00012 J	0.00014 J	0.00016 J	0.00015 J	NA
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
	Chromium	mg/l	< 0.01 *	0.0011 J	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Lead	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.005	< 0.005	NA
	Lithium	mg/l	< 0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA
	Mercury	mg/l	< 0.0005 *	< 0.0005	< 0.0005	NA	< 0.0005	NA	< 0.0005	< 0.0005	NA	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA
	Combined Radium - 226/228	pci/l	0.479 U	0.506 U	0.713 U	NA	0.409 U	0.728 U	0.981	0.837 U	NA	0.502 U
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001	< 0.001	NA
Field	Conductivity	µS/cm	66.6	67.2	67.7	NA	67.7	NA	NA	66.4	65.4	NA
	Dissolved Oxygen	mg/l	5.86	6.01	6.33	NA	6.39	NA	NA	6.15	6.37	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	135.3	86.3	121.1	NA	127.5	NA	NA	116.6	192.6	NA
	pH	SU	5.62	5.46	5.81	5.45	5.64	5.64	5.61	5.72	5.66	NA
	Temperature	C	19.31	19.15	20.99	NA	17.23	NA	NA	16.06	17.98	NA
	Turbidity	ntu	0.46	0.53	0.45	NA	1.05	NA	NA	0.63	2.94	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	5.4	5.7	5.7	6	NA	6.2	6.9	NA	5.9	NA
	Fluoride	mg/l	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.033 J	NA
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-24S	YGWC-32I	YGWC-32I	YGWC-32I	YGWC-32I	YGWC-32I	YGWC-32I	
		YGWC-24S (092619)	YGWC-24S (101019)	YGWC-24S (021320)	YGWC-24S (032620)	YGWC-32I (060816)	YGWC-32I (072916)	YGWC-32I (092116)	YGWC-32I (111016)	YGWC-32I (011717)	YGWC-32I (030117)	
		9/26/2019	10/10/2019	2/13/2020	3/26/2020	6/8/2016	7/29/2016	9/21/2016	11/10/2016	1/17/2017	3/1/2017	
Appendix III	Boron	mg/l	0.0068 J	NA	NA	0.033 J	3.9	3.25	4	3.59	4.06	3.58
	Calcium	mg/l	1.7	NA	NA	1.7	100	82.3	93.4	90.1	97.9	96.7
	Chloride	mg/l	NA	NA	NA	5.4	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	< 0.050	< 0.050	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	0.23 J	NA	NA	NA	500	500	410	480	490	480
	Total Dissolved Solids	mg/l	81	NA	NA	67.0	750	723	739	741	717	772
Appendix IV	Antimony	mg/l	< 0.003	NA	< 0.00027	< 0.00027	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	NA	< 0.00035	0.0015 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.017	NA	0.016	0.019	0.025	0.025	0.0257	0.0245	0.0247	0.0275
	Beryllium	mg/l	0.00014 J	NA	0.00014 J	0.00016 J	< 0.0025	0.00009 J	0.0001 J	< 0.003 *	0.0001 J	0.0001 J
	Cadmium	mg/l	< 0.0025	NA	< 0.00011	< 0.00011	0.00078 J	0.0007 J	0.0007 J	0.0007 J	0.0008 J	0.0009 J
	Chromium	mg/l	NA	NA	< 0.00039	0.00094 J	< 0.0025	0.0036 J	< 0.01	< 0.01	< 0.01	0.0006 J
	Cobalt	mg/l	< 0.005	NA	< 0.00030	< 0.00030	0.0017 J	0.0016 J	0.0016 J	0.0015 J	0.0015 J	0.0016 J
	Lead	mg/l	< 0.005	NA	< 0.000046	0.000053 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 *
	Lithium	mg/l	< 0.03	NA	< 0.00078	< 0.00078	0.0039 J	0.003 J	0.0033 J	0.0033 J	0.0032 J	0.0036 J
	Mercury	mg/l	NA	NA	< 0.00014	NA	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.964 U	NA	0.474 U	0.511 U	0.351 U	0.429 U	0.2 U	0.973 U	0.838 U	0.817 U
	Selenium	mg/l	< 0.01	NA	< 0.0013	< 0.0013	0.00094 J	0.002 J	0.0026 J	0.0016 J	0.0027 J	0.0042 J
	Thallium	mg/l	< 0.001	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	0.00005 J
Field	Conductivity	µS/cm	60.1	NA	NA	NA	926.9	917.7	931.94	997.5	1044.3	959.5
	Dissolved Oxygen	mg/l	6.13	NA	NA	NA	0.22	0.17	0.29	0.17	0.65	0.38
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	142.7	NA	NA	NA	24.6	-7.9	244.9	424.4	204.1	420.3
	pH	SU	5.52	NA	5.69	5.51	5.41	5.39	5.4	5.32	5.37	5.26
	Temperature	C	20.81	NA	NA	NA	22.44	21.66	22.29	19.22	20.39	22.45
	Turbidity	ntu	0.36	NA	NA	NA	1.96	0.65	1.02	2.03	1.06	2.81
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	13	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	13	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	< 1	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	< 0.1	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	6.5	NA	NA	NA	14	12	13	14	13	13
	Fluoride	mg/l	0.098 J	NA	NA	NA	< 0.2	0.17 J	< 0.3	< 0.3 *	< 0.3	< 0.3 *
	Iron (Ferric)	mg/l	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	0	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	< 0.04	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	0.61	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	7.9	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	< 1	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWC-32I	YGWC-32I	YGWC-32S	YGWC-32S	YGWC-32S	YGWC-32S	YGWC-32S	YGWC-32S	YGWC-32S	YGWC-32S
			YGWC-32I (050317)	YGWC-32I (071117)	YGWC-32S (060816)	YGWC-32S (072916)	YGWC-32S (092116)	YGWC-32S (110916)	YGWC-32S (011717)	YGWC-32S (030117)	YGWC-32S (050317)	YGWC-32S (071117)
			5/3/2017	7/11/2017	6/8/2016	7/29/2016	9/21/2016	11/9/2016	1/17/2017	3/1/2017	5/3/2017	7/11/2017
Appendix III	Boron	mg/l	4.84	3.6	3.8	3.34	4.29	2.14	4.58	3.41	4.99	3.92
	Calcium	mg/l	99.8	106	120	90.1	101	106	110	111	118	131
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	490	450	360	360	< 1	360	350	370	360	320
	Total Dissolved Solids	mg/l	864	723	500	518	531	552	552	561	713	588
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.0025	0.0003 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	0.0008 J	0.0004 J	0.0007 J
	Barium	mg/l	0.0257	0.0258	0.021	0.0204	0.0225	0.023	0.0216	0.024	0.0208	0.023
	Beryllium	mg/l	0.0001 J	0.0001 J	0.0029	0.0025 J	0.0025 J	0.0023 J	0.0026 J	0.0028 J	0.0026 J	0.0033
	Cadmium	mg/l	0.0007 J	0.0008 J	0.00067 J	0.0006 J	0.0006 J	0.0005 J	0.0007 J	0.0006 J	0.0006 J	0.0007 J
	Chromium	mg/l	< 0.01	< 0.01	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	0.0016 J	0.0017 J	0.004	0.0036 J	0.0036 J	0.0044 J	0.0038 J	0.0038 J	0.0042 J	0.0043 J
	Lead	mg/l	< 0.005	< 0.005	< 0.0013	0.0001 J	0.0001 J	< 0.005	< 0.005	< 0.005 *	< 0.005 *	0.0001 J
	Lithium	mg/l	0.0034 J	0.0034 J	< 0.005	< 0.05	< 0.05	< 0.05	< 0.05	0.0012 J	0.0011 J	< 0.05
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0002 *	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.352 U	1.28	0.212 U	1.82	0.962 U	0.0355 U	0.969 U	0.301 U	0.77 U	0.931
	Selenium	mg/l	0.0022 J	0.0046 J	0.032	0.0403	0.0458	0.0531	0.0635	0.0704	0.0716	0.0696
	Thallium	mg/l	< 0.001	< 0.001	< 0.0005	0.0001 J	< 0.001	< 0.001	< 0.001	0.00006 J	0.00006 J	0.00005 J
Field	Conductivity	µS/cm	980	952.6	710.9	733.6	727.02	755	829	771.9	820.3	828.6
	Dissolved Oxygen	mg/l	0.21	0.18	0.5	0.53	2.41	1.78	0.52	0.3	0.81	0.59
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	377.3	389.1	321.6	500.2	457.03	467.2	369.1	421.7	403.2	424.8
	pH	SU	5.29	5.32	4.73	4.64	4.63	4.73	4.68	4.58	4.63	4.65
	Temperature	C	21.55	22.89	22.18	23.3	25.06	21.79	21.6	21.29	21.46	23.98
	Turbidity	ntu	3.64	2.17	2.61	1.66	4.22	2.37	4.49	3.84	4.85	4.73
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	14	14	15	15	< 0.25 *	16	15	15	18	19
	Fluoride	mg/l	0.04 J	< 0.3 *	< 0.2	0.32	< 0.3	0.4	0.24 J	< 0.3 *	0.36	< 0.3 *
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	
		YGWC-33S (060816)	YGWC-33S (062816)	YGWC-33S (080116)	YGWC-33S (092116)	YGWC-33S (110816)	YGWC-33S (111016)	YGWC-33S (111416)	YGWC-33S (011717)	YGWC-33S (030117)	YGWC-33S (050317)	
		6/8/2016	6/28/2016	8/1/2016	9/21/2016	11/8/2016	11/10/2016	11/14/2016	1/17/2017	3/1/2017	5/3/2017	
Appendix III	Boron	mg/l	12	NA	9.89	11.1	NA	NA	11	11.8	8.61	13.4
	Calcium	mg/l	130	NA	136	131	NA	NA	116	126	125	129
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	910	NA	830	840	NA	NA	750	790	850	800
	Total Dissolved Solids	mg/l	1200	NA	1300	1220	NA	NA	1170	1150	1160	1280
Appendix IV	Antimony	mg/l	< 0.0025	NA	< 0.003 *	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	0.0033	NA	0.007	0.0054	NA	NA	< 0.005	0.0027 J	0.0041 J	0.0037 J
	Barium	mg/l	0.029	NA	0.02	0.0183	NA	NA	0.0149	< 0.0139 *	0.0142	0.0151
	Beryllium	mg/l	0.012	NA	0.0146	0.0149	NA	NA	0.0152	0.0142	0.015	0.0154
	Cadmium	mg/l	0.00098 J	NA	0.0014	0.0017	NA	NA	0.0027	0.0033	0.0031	0.0031
	Chromium	mg/l	< 0.0025 *	NA	0.0021 J	0.0021 J	NA	NA	< 0.01 *	< 0.01	0.0014 J	0.0009 J
	Cobalt	mg/l	0.037	NA	0.0297	0.0237	NA	NA	0.0144	0.0095 J	0.0125	0.0151
	Lead	mg/l	< 0.0013 *	NA	0.0005 J	0.0006 J	NA	NA	0.0012 J	0.002 J	0.002 J	< 0.005 *
	Lithium	mg/l	0.0099	NA	0.0142 J	0.0145 J	NA	NA	0.0253 J	0.0256 J	0.0219 J	0.0217 J
	Mercury	mg/l	< 0.0002	NA	< 0.0005	< 0.0005	NA	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	0.00095 J	NA	0.0005 J	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.384 U	NA	1.55	2.36	NA	NA	0.851 U	1.41 U	1.13	0.584 U
	Selenium	mg/l	0.0011 J	NA	0.0192	0.0147	NA	NA	< 0.01	0.0122	0.0151	0.012
	Thallium	mg/l	< 0.0005	NA	0.00006 J	< 0.001	NA	NA	< 0.001	0.0004 J	0.0003 J	0.0002 J
Field	Conductivity	µS/cm	1401.9	1376.7	1394.2	1367.71	1424.9	1405.2	1420.5	1339.7	1349.7	1366.3
	Dissolved Oxygen	mg/l	0.07	0.13	0.18	0.16	0.18	0.13	0.09	0.09	0.07	0.06
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	-36.9	-4	3.5	11.69	97.7	125.1	152.4	121.9	222.4	205.3
	pH	SU	5.07	4.87	4.62	4.63	4.58	4.42	4.35	4.16	4.17	4.19
	Temperature	C	22.43	20.96	21.73	22.62	19.85	20.26	19.97	19.15	19.27	19.59
	Turbidity	ntu	4.71	1.12	2.61	3	38	32	8.43	4.51	4.68	5.34
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	7.6	NA	5.7	5.5	NA	NA	6.4	5.3	5.5	6.1
	Fluoride	mg/l	0.34	NA	0.24 J	0.22 J	NA	NA	0.35	0.22 J	0.33	0.2 J
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	YGWC-33S	
		YGWC-33S (071017)	YGWC-33S (101117)	YGWC-33S (033018)	YGWC-33S (061218)	YGWC-33S (092618)	YGWC-33S (030619)	YGWC-33S (040419)	YGWC-33S (092619)	YGWC-33S (021420)	YGWC-33S (032520)	
		7/10/2017	10/11/2017	3/30/2018	6/12/2018	9/26/2018	3/6/2019	4/4/2019	9/26/2019	2/14/2020	3/25/2020	
Appendix III	Boron	mg/l	15.2	11.4	NA	9.2	13.4	NA	15.4	9.6	NA	5.3
	Calcium	mg/l	139	125	NA	129	144	NA	163	117	NA	97.8
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	0.23 J	0.36
	Sulfate	mg/l	810	730	NA	759	895	NA	847	532	NA	NA
	Total Dissolved Solids	mg/l	1170	1110	NA	1150	1280	NA	1260	1070	NA	839
Appendix IV	Antimony	mg/l	< 0.003	NA	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	0.0013 J	< 0.00027
	Arsenic	mg/l	0.0044 J	NA	0.0049 J	0.002 J	0.0048 J	0.0022 J	0.0024 J	0.0025 J	0.0027 J	0.0030 J
	Barium	mg/l	0.0137	NA	0.012	0.012	0.012	0.012	0.014	0.01	0.013	0.012
	Beryllium	mg/l	0.0143	NA	0.018	0.016	0.024 o	0.023	0.025	0.019	0.016	0.017
	Cadmium	mg/l	0.0029	NA	0.0028	0.0029	0.0028	0.003	0.0035	0.0023 J	0.0021 J	0.0020 J
	Chromium	mg/l	< 0.01 *	NA	< 0.01	NA	NA	< 0.01	NA	NA	0.00078 J	0.0012 J
	Cobalt	mg/l	0.0121	NA	0.013	0.014	0.023	0.028	0.031	0.023	0.023	0.020
	Lead	mg/l	0.0018 J	NA	< 0.025	NA	NA	0.0012 J	0.0014 J	0.00087 J	0.0010 J	0.00083 J
	Lithium	mg/l	0.0214 J	NA	0.024 J	0.023 J	0.034 J	0.033 J	0.035 J	0.028 J	0.024 J	0.029 J
	Mercury	mg/l	< 0.0005	NA	< 0.0005	NA	< 0.0005	< 0.0005	NA	NA	< 0.00014	NA
	Molybdenum	mg/l	< 0.01	NA	< 0.01	NA	NA	< 0.01	NA	NA	< 0.00095	< 0.00095
	Combined Radium - 226/228	pci/l	0.46 U	NA	0.607 U	0.633 U	1.38	0.97 U	1.14	1.08 U	1.01 U	1.44
	Selenium	mg/l	0.0106	NA	0.011	0.0057 J	0.016	0.013	0.012	0.011	0.015	0.022
	Thallium	mg/l	0.0002 J	NA	< 0.005	NA	NA	0.00016 J	0.00018 J	0.00014 J	0.00019 J	0.00015 J
Field	Conductivity	µS/cm	1321.7	NA	1326.3	NA	NA	1404.4	1354.3	1161.1	NA	NA
	Dissolved Oxygen	mg/l	0.06	NA	0.15	NA	NA	0.56	0.17	0.41	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
	Oxidation Reduction Potential	mV	228.5	NA	210.3	NA	NA	268.6	268.2	219.1	NA	NA
	pH	SU	4.02	4.01	4.05	4.03	3.97	3.27	3.88	3.74	3.76	3.86
	Temperature	C	19.45	NA	18.23	NA	NA	18.05	18.73	21.31	NA	NA
	Turbidity	ntu	3.45	NA	4.85	NA	NA	1.39	4.9	1.27	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.0
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	< 20	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	< 20	NA	< 5.0
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	< 20	NA	< 5.0
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	3.82	NA	3.6
	Chloride	mg/l	5.6	5.8	NA	5.9	4.7	NA	5.8	4.5	NA	NA
	Fluoride	mg/l	0.57	< 0.3 *	1.4	0.18 J	0.07 J	0.49	0.57	0.48	NA	NA
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	0.5	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	0	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	52.4	NA	49.7
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	12.8	NA	10.3
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.05	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.02	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	3.58 J	NA	4.1
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	16.9	NA	17.6
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.2	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	< 1	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-34I	YGWC-36
		YGWC-34I (060816)	YGWC-34I (062816)	YGWC-34I (072816)	YGWC-34I (092116)	YGWC-34I (110916)	YGWC-34I (011717)	YGWC-34I (022817)	YGWC-34I (050217)	YGWC-34I (071017)	YGWC-36 (090216)	
		6/8/2016	6/28/2016	7/28/2016	9/21/2016	11/9/2016	1/17/2017	2/28/2017	5/2/2017	7/10/2017	9/2/2016	
Appendix III	Boron	mg/l	4.4	NA	3.33	4.08	4.25	4.79	3.75	3.26	3.67	0.133
	Calcium	mg/l	110	NA	87.6	97.3	92.7	93.3	98.2	92.8	93.9	11.2
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	370	NA	340	340	170	330	330	300	320	72
	Total Dissolved Solids	mg/l	560	NA	561	529	514	487	563	536	467	243
Appendix IV	Antimony	mg/l	< 0.0025	NA	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.0013	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.027	NA	0.0272	0.0229	0.023	0.0208	0.0235	0.02	0.0199	0.0409
	Beryllium	mg/l	0.00061 J	NA	0.0007 J	0.0007 J	0.0007 J	0.0006 J	0.0008 J	0.0006 J	0.0007 J	0.0003 J
	Cadmium	mg/l	< 0.0025	NA	0.0001 J	0.0002 J	0.0001 J	0.0001 J	0.0002 J	0.0002 J	0.0002 J	< 0.001 o
	Chromium	mg/l	< 0.0025	NA	0.0005 J	< 0.01	< 0.01	< 0.01	0.0005 J	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	0.0043	NA	0.005 J	0.0046 J	0.0049 J	0.0049 J	0.0055 J	0.0048 J	0.0051 J	0.0006 J
	Lead	mg/l	< 0.0013	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 *	< 0.005	< 0.005	0.0017 J
	Lithium	mg/l	< 0.005	NA	0.0024 J	0.0025 J	0.0026 J	0.0027 J	0.0031 J	0.0027 J	0.0032 J	0.0029 J
	Mercury	mg/l	< 0.0002	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	0.026	NA	0.0287	0.0271	0.0261	0.0279	0.0289	0.0255	0.024	0.0027 J
	Combined Radium - 226/228	pci/l	0.191 U	NA	0.942 U	0.462 U	0.218 U	0.163 U	0.431 U	0.314 U	0.589 U	0.873 U
	Selenium	mg/l	0.06	NA	0.0748	0.0746	0.0814	0.0758	0.0827	0.0734	0.0773	0.0012 J
	Thallium	mg/l	0.00019 J	NA	0.0002 J	< 0.001	0.0002 J	0.0002 J	0.0002 J	0.0002 J	0.0002 J	< 0.001
Field	Conductivity	µS/cm	NA	743.8	760.3	735.57	718.1	719.4	715.7	693	668.7	255.3
	Dissolved Oxygen	mg/l	NA	0.12	0.2	0.2	0.34	0.18	0.44	0.35	0.54	1.98
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	163.5	179.4	86.76	129.4	124.6	120.3	208.6	158.7	51.5
	pH	SU	NA	4.85	4.84	4.85	4.77	4.78	4.73	4.81	4.78	5.84
	Temperature	C	NA	19.48	21.37	22.36	19.62	19.86	18.89	19.96	20.43	19.82
	Turbidity	ntu	NA	0.09	0.26	0.1	0.11	0.1	0.21	0.11	0.41	0.38
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	16	NA	15	14	15	14	14	14	13	6.3
	Fluoride	mg/l	< 0.2	NA	0.36	0.36	0.47	0.19 J	< 0.3 *	0.17 J	0.14 J	0.05 J
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	
		YGWC-36 (092216)	YGWC-36 (092916)	YGWC-36 (100616)	YGWC-36 (111416)	YGWC-36 (022817)	YGWC-36 (050917)	YGWC-36 (071317)	YGWC-36 (092217)	YGWC-36 (092917)	YGWC-36 (100617)	
		9/22/2016	9/29/2016	10/6/2016	11/14/2016	2/28/2017	5/9/2017	7/13/2017	9/22/2017	9/29/2017	10/6/2017	
Appendix III	Boron	mg/l	NA	NA	NA	0.287	0.215	0.233	0.262	0.238	0.235	0.256
	Calcium	mg/l	NA	NA	NA	7.79	8.37	13.9	16.6	18.4	16.1	16.6
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	NA	NA	110	110	130	140	160	160	160
	Total Dissolved Solids	mg/l	NA	NA	NA	272	306	303	282	309	273	287
Appendix IV	Antimony	mg/l	NA	NA	NA	0.0014 J	0.0004 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	NA	NA	NA	< 0.01	0.0006 J	0.0006 J	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	NA	NA	NA	0.0182	0.023	0.0349	0.0484	0.0491	0.0452	0.0508
	Beryllium	mg/l	NA	NA	NA	0.00009 J	0.0001 J	0.0002 J	0.0003 J	0.0003 J	0.0003 J	0.0003 J
	Cadmium	mg/l	NA	NA	NA	0.00009 Jo	0.0001 Jo	0.0002 J	0.0002 J	0.0002 J	0.0002 J	0.0002 J
	Chromium	mg/l	NA	NA	NA	0.0035	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	NA	NA	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	NA	NA	NA	0.0002 J	0.0003 J	0.0004 J	0.0004 J	0.0003 J	0.0002 J	0.0002 J
	Lithium	mg/l	NA	NA	NA	0.0044 J	0.0038 J	0.0057 J	0.007 J	0.0067 J	0.0064 J	0.0065 J
	Mercury	mg/l	NA	NA	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	NA	0.0071 J	0.0038 J	0.0025 J	0.0014 J	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.667 U	1.63	0.641 U	0.0451 U	1.34 U	0.309 U	0.618 U	NA	NA	NA
	Selenium	mg/l	NA	NA	NA	< 0.05	0.0017 J	0.0018 J	0.0031 J	0.0024 J	0.002 J	< 0.01
	Thallium	mg/l	NA	NA	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	NA	NA	439	NA	NA	NA	NA	NA	NA
	Dissolved Oxygen	mg/l	NA	NA	NA	0.24	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	NA	NA	60.9	NA	NA	NA	NA	NA	NA
	pH	SU	NA	NA	NA	6.28	5.99	6.3	5.57	5.5	5.58	5.51
	Temperature	C	NA	NA	NA	19.11	NA	NA	NA	NA	NA	NA
	Turbidity	ntu	NA	NA	NA	4.75	NA	NA	NA	NA	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	NA	NA	6.7	5.4	5.7	5.4	6.9	5.5	5.5
	Fluoride	mg/l	NA	NA	NA	0.18 J	0.09 J	0.009 J	< 0.3	0.09 J	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	YGWC-36	
		YGWC-36 (101117)	YGWC-36 (033018)	YGWC-36 (061318)	YGWC-36 (092618)	YGWC-36 (030619)	YGWC-36 (040419)	YGWC-36 (092619)	YGWC-36 (101019)	YGWC-36 (021420)	YGWC-36 (032520)	
		10/11/2017	3/30/2018	6/13/2018	9/26/2018	3/6/2019	4/4/2019	9/26/2019	10/10/2019	2/14/2020	3/25/2020	
Appendix III	Boron	mg/l	0.245	NA	0.25	0.24	NA	0.22	0.13	NA	NA	0.11 (0.11)
	Calcium	mg/l	18.1	NA	18.7 J	19.8 J	NA	16.9 J	11.7	NA	NA	10.6 (10.6)
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.6 (6.7)
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.050 (0.093 J)
	Sulfate	mg/l	150	NA	144	160	NA	119	84.8	NA	NA	NA
	Total Dissolved Solids	mg/l	264	NA	292	277	NA	240	198	NA	NA	164 (184)
Appendix IV	Antimony	mg/l	NA	< 0.003	NA	NA	0.0011 J	0.0041	0.0065	NA	0.0027 J (< 0.00027)	0.0011 J (0.0011 J)
	Arsenic	mg/l	NA	< 0.005	0.00066 J	< 0.005	< 0.005	< 0.005	< 0.005	NA	0.0026 J (< 0.00035)	< 0.00035 (< 0.00035)
	Barium	mg/l	NA	0.043	0.046	0.048	0.042	0.041	0.025	NA	0.026 (0.092)	0.025 (0.026)
	Beryllium	mg/l	NA	< 0.003 o	0.00035 J	0.00032 J	0.00029 J	0.00033 J	0.00029 J	NA	0.00019 J (< 0.000074)	0.00022 J (0.00021 J)
	Cadmium	mg/l	NA	< 0.001 o	0.00019 J	0.00018 J	0.00015 J	0.00019 J	0.00017 J	NA	0.00017 J (< 0.00011)	0.00019 J (0.00015 J)
	Chromium	mg/l	NA	< 0.01	NA	NA	< 0.01	NA	NA	NA	< 0.00039 (< 0.00039)	0.00074 J (0.00046 J)
	Cobalt	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.00048 J	NA	0.00041 J (0.0025 J)	0.00038 J (0.00037 J)
	Lead	mg/l	NA	< 0.005	NA	NA	< 0.005	0.00037 J	0.00023 J	NA	0.00016 J (0.000077 J)	0.00010 J (0.00010 J)
	Lithium	mg/l	NA	0.0061 J	0.0065 J	0.0063 J	0.0057 J	0.0058 J	0.0041 J	NA	0.0024 J (< 0.00078)	0.0032 J (0.0032 J)
	Mercury	mg/l	NA	< 0.0005	NA	< 0.0005	< 0.0005	NA	NA	NA	< 0.00014 (< 0.00014)	NA
	Molybdenum	mg/l	NA	< 0.01	NA	NA	< 0.01	NA	NA	NA	< 0.00095 (< 0.00095)	< 0.00095 (< 0.00095)
	Combined Radium - 226/228	pci/l	NA	0.721 U	1.04 U	0.604 U	0.919 U	1.05 U	0.979 U	NA	1.06 U (0.942)	1.22 U (0.928 U)
	Selenium	mg/l	NA	< 0.01	0.0024 J	0.0037 J	0.0033 J	0.0029 J	0.0019 J	NA	0.0020 J (< 0.0013)	0.0024 J (0.0022 J)
	Thallium	mg/l	NA	< 0.001	NA	NA	< 0.001	< 0.001	< 0.001	NA	0.000057 J (0.00010 J)	0.000052 (< 0.000052)
Field	Conductivity	µS/cm	NA	412.3	NA	NA	355.6	354.5	255.6	NA	NA	NA
	Dissolved Oxygen	mg/l	NA	0.87	NA	NA	1.94	1.47	0.78	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	0 (NA)
	Oxidation Reduction Potential	mV	NA	139.5	NA	NA	125.3	164.3	138.3	NA	NA	NA
	pH	SU	5.47	5.51	5.5	5.53	5.21	5.74	5.51	NA	5.71 (NA)	5.49 (NA)
	Temperature	C	NA	17.72	NA	NA	17.06	18.89	20.82	NA	NA	NA
	Turbidity	ntu	NA	4.73	NA	NA	1.25	4.57	1.76	NA	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.9 (10.8)
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	12	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	12	NA	10.9 (10.8)
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 5.0 (< 5.0)
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.1	NA	< 0.032 (0.049 J)
	Chloride	mg/l	6.4	NA	5.6	6	NA	5.4	7.1	NA	NA	NA
	Fluoride	mg/l	< 0.3 *	< 0.3	< 0.3	< 0.3	< 0.3	0.043 J	0.094 J	NA	NA	NA
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.2	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	0	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	7.4	NA	6.1 (6.1)
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	0.062	NA	0.036 J (0.035 J)
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.02	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	1.9	NA	1.9 (1.9)
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	18.2	NA	18.0 (18.0)	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	< 1	NA	NA	

Notes can be found on last page.

	Analyte	Units	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	
			YGWC-38 (101217)	YGWC-38 (112017)	YGWC-38 (011218)	YGWC-38 (022018)	YGWC-38 (040318)	YGWC-38 (062818)	YGWC-38 (080718)	YGWC-38 (092418)	YGWC-38 (032719)	YGWC-38 (082219)	
			10/12/2017	11/20/2017	1/12/2018	2/20/2018	4/3/2018	6/28/2018	8/7/2018	9/24/2018	3/27/2019	8/22/2019	
Appendix III	Boron	mg/l	19.3	21.8	18.7	18.6	20.9	22.7	19.1	18.4	16.7	NA	
	Calcium	mg/l	190	184	178	184	174	190	176	172	155	NA	
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Sulfate	mg/l	940	980	880	905	872	869	879	872	851	NA	
	Total Dissolved Solids	mg/l	1360	1390	1400	1300	1390	1310	1340	1400	1190	NA	
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	0.0015 J	< 0.003	NA	< 0.003	
	Arsenic	mg/l	0.0023 J	0.0008 J	0.001 J	0.00096 J	0.0015 J	0.0017 J	0.00072 J	0.0017 J	NA	0.00055 J	
	Barium	mg/l	0.0269	0.0255	0.0236	0.0255	0.023	0.024	0.023	0.024	NA	0.019	
	Beryllium	mg/l	0.0057	0.0053	0.0053	0.0053	0.0056	0.0059	0.0058	0.0051	NA	0.0049	
	Cadmium	mg/l	0.003	0.0027	0.0029	0.0029	0.0027	0.0029	0.0027	0.0027	NA	0.0023 J	
	Chromium	mg/l	0.0005 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.005
	Lead	mg/l	0.0001 J	0.0001 J	0.0001 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005
	Lithium	mg/l	0.0095 J	0.0083 J	0.0089 J	0.0082 J	0.0097 J	0.0093 J	0.0092 J	0.0083 J	NA	0.0082 J	
	Mercury	mg/l	< 0.0005	0.00008 J	< 0.0005	< 0.0002	< 0.0005	0.000037 J	< 0.0005	< 0.0005	NA	< 0.0005	
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
	Combined Radium - 226/228	pci/l	1.24	0.342 U	1.04	1.6 U	0.726 U	1.06 U	1.21	1.52	NA	1.97	
	Selenium	mg/l	0.265	0.246	0.249	0.253	0.23	0.23	0.2	0.2	NA	0.14	
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001
Field	Conductivity	µS/cm	1606.9	1581.7	1648	1512.2	1574.4	1548.1	1401.2	1517.2	1394.5	1300.7	
	Dissolved Oxygen	mg/l	0.36	2.76	0.44	1.58	0.88	0.54	0.44	0.85	1.47	1.76	
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Oxidation Reduction Potential	mV	172.8	181.3	107.5	85.2	161.5	99.2	209.9	184.6	162.4	118.4	
	pH	SU	4.85	4.87	4.78	5.1	4.76	4.75	4.72	4.67	4.79	4.81	
	Temperature	C	20.16	18.45	15.98	18.98	17.48	26.11	20.13	21.51	16.74	19.92	
	Turbidity	ntu	4.87	4.55	1.05	4.93	1.61	0.39	0.51	1.1	1.2	0.99	
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Chloride	mg/l	6	6.9	6.6	6.2	6.9	6.4	5.5	5.9	6.2	NA	
	Fluoride	mg/l	< 0.3	0.2 J	0.21 J	< 0.1	0.41	0.43	< 0.3	0.034 J	0.24 J	< 0.3	
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Notes can be found on last page.

Analyte	Units	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	
		YGWC-38 (100819)	YGWC-38 (100919)	YGWC-38 (021420)	YGWC-38 (032520)	YGWC-41 (101217)	YGWC-41 (112117)	YGWC-41 (011118)	YGWC-41 (021918)	YGWC-41 (040318)	YGWC-41 (062718)	
		10/8/2019	10/9/2019	2/14/2020	3/25/2020	10/12/2017	11/21/2017	1/11/2018	2/19/2018	4/3/2018	6/27/2018	
Appendix III	Boron	mg/l	NA	13.5	NA	9.3	12	12.1	12.8	15.2	14.5	14.1
	Calcium	mg/l	NA	133	NA	124	44.5	44.4	43.9	45.3	42.7	42.2
	Chloride	mg/l	NA	NA	NA	4.0	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	< 0.050M1	< 0.050	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	708	NA	NA	400	430	390	414	406	357
	Total Dissolved Solids	mg/l	NA	1100	NA	883	636	706	701	630	660	575
Appendix IV	Antimony	mg/l	NA	NA	0.00031 J	0.00063 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	NA	0.00057 J	0.0021 J	0.00068 J	0.0011 J	< 0.005	< 0.005	< 0.005	0.00072 J	0.00062 J
	Barium	mg/l	NA	0.019	0.019	0.018	0.0394	0.032	0.03	0.0308	0.03	0.028
	Beryllium	mg/l	NA	0.0046	0.0042	0.0038	0.0036	0.0036	0.0037	0.0039	0.0037	0.0038
	Cadmium	mg/l	NA	0.0021 J	0.0021 J	0.0018 J	0.0002 J	0.0003 J	0.0002 J	< 0.001	< 0.001	0.00025 J
	Chromium	mg/l	NA	< 0.01	0.0023 J	0.00065 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	NA	< 0.005	< 0.00030	< 0.00030	0.0011 J	0.0003 J	0.0003 J	< 0.01	< 0.01	0.00069 J
	Lead	mg/l	NA	< 0.005	< 0.000046	< 0.000046	< 0.005	< 0.005	0.00007 J	< 0.005	< 0.005	0.0011 J
	Lithium	mg/l	NA	0.0081 J	0.0076 J	0.0081 J	0.004 J	0.0043 J	0.0044 J	< 0.05 o	0.0047 J	0.0042 J
	Mercury	mg/l	NA	NA	< 0.00014	NA	< 0.0005	0.00006 J	< 0.0005	< 0.0002	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	< 0.01	< 0.00095	< 0.00095	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	0.751 U	NA	1.12 U	0.321 U	0.641 U	2.01	0.919 U	1.82	0.911 U	0.429 U
	Selenium	mg/l	NA	0.12	0.11	0.099	0.0191	0.0687	0.069	0.071	0.067	0.066
	Thallium	mg/l	NA	NA	< 0.000052	< 0.000052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	1260.4	NA	NA	845.7	858.7	896.9	804.6	840.8	763.4
	Dissolved Oxygen	mg/l	NA	2.09	NA	NA	0.19	1.1	1.2	1.17	3.79	1.53
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	101.8	NA	NA	49	105.8	73.7	130.9	156.5	64.7
	pH	SU	NA	4.8	4.84	4.89	4.94	4.69	4.73	4.96	5.31	4.78
	Temperature	C	NA	18.29	NA	NA	22.87	19.59	16.9	19.19	18.85	21.9
	Turbidity	ntu	NA	1.22	NA	NA	3.13	1.95	0.78	2.45	NA	0.2
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	5	NA	NA	3.1	4.2	3.8	3.5	4.4	3.6
	Fluoride	mg/l	NA	<-0.3	NA	NA	< 0.3	< 0.3	< 0.3	< 0.1	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-42	YGWC-42	
		YGWC-41 (080718)	YGWC-41 (092418)	YGWC-41 (032819)	YGWC-41 (082219)	YGWC-41 (100819)	YGWC-41 (100919)	YGWC-41 (021420)	YGWC-41 (032520)	YGWC-42 (083016)	YGWC-42 (111616)		
		8/7/2018	9/24/2018	3/28/2019	8/22/2019	10/8/2019	10/9/2019	2/14/2020	3/25/2020	8/30/2016	11/16/2016		
Appendix III	Boron	mg/l	11.9	12.2	7.1	NA	NA	8.6	NA	7.9	24.7	16.4	
	Calcium	mg/l	40.7	38.5	26	NA	NA	27.6	NA	29.6	133	125	
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	2.7	NA	NA	
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	< 0.050	< 0.050	NA	NA	
	Sulfate	mg/l	346	358	258	NA	NA	263	NA	NA	980	940	
	Total Dissolved Solids	mg/l	574	588	372	NA	NA	440	NA	428	1650	1420	
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.00027	< 0.00027	< 0.003	< 0.003	
	Arsenic	mg/l	< 0.005	0.001 J	NA	0.00036 J	NA	0.00052 J	0.0014 J	0.0010 J	0.0023 J	0.0017 J	
	Barium	mg/l	0.027	0.026	NA	0.021	NA	0.021	0.024	0.021	0.0455	0.0541	
	Beryllium	mg/l	0.0037	0.0032	NA	0.0026 J	NA	0.0026 J	0.0026 J	0.0026 J	0.00009 J	< 0.003	
	Cadmium	mg/l	0.00024 J	0.00021 J	NA	0.00015 J	NA	0.00017 J	0.00020 J	0.00018 J	< 0.001	< 0.001	
	Chromium	mg/l	< 0.01	< 0.01	NA	< 0.01	NA	< 0.01	< 0.00039	0.00039 J	< 0.01	< 0.01	
	Cobalt	mg/l	< 0.01	< 0.01	NA	< 0.005	NA	< 0.005	< 0.00030	< 0.00030	0.0025 J	0.002 J	
	Lead	mg/l	< 0.005	< 0.005	NA	0.000067 J	NA	0.00012 J	< 0.000046	< 0.000046	< 0.005	0.0002 J	
	Lithium	mg/l	0.0038 J	0.0037 J	NA	0.0035 J	NA	0.0032 J	0.0029 J	0.0029 J	0.0257 J	0.0221 J	
	Mercury	mg/l	< 0.0005	< 0.0005	NA	< 0.0005	NA	NA	< 0.00014	NA	< 0.0005	< 0.0005	
	Molybdenum	mg/l	< 0.01	< 0.01	NA	< 0.01	NA	< 0.01	< 0.00095	< 0.00095	0.0019 J	0.0027 J	
	Combined Radium - 226/228	pci/l	0.579 U	1.39	NA	2.03	0.609 U	NA	1.16 U	0.568 U	2.99	4.01	
	Selenium	mg/l	0.061	0.061	NA	0.058	NA	0.052	0.059	0.057	0.0711	0.0313	
	Thallium	mg/l	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.001	< 0.001	
Field	Conductivity	µS/cm	671.4	700.1	574.2	578.6	NA	578.4	NA	NA	NA	1673.6	
	Dissolved Oxygen	mg/l	1.84	1.93	2.71	2.56	NA	4.94	NA	NA	NA	0.33	
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Oxidation Reduction Potential	mV	176.7	746.6	202.4	110.7	NA	92.7	NA	NA	NA	-13.8	
	pH	SU	4.77	4.78	5	4.89	NA	4.86	4.84	4.87	5.64	6.21	
	Temperature	C	19.5	20.84	18.78	19.59	NA	18.79	NA	NA	NA	20.76	
	Turbidity	ntu	0.92	1.02	0.49	2.74	NA	1.03	NA	NA	NA	NA	
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Chloride	mg/l	3.3	3.3	3.2	NA	NA	3.3	NA	NA	4.4	4.7	
	Fluoride	mg/l	0.11 J	< 0.3	0.1 J	< 0.3	NA	< 0.3	NA	NA	0.02 J	0.07 J	
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Notes can be found on last page.

Analyte	Units	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	
		YGWC-42 (022717)	YGWC-42 (051017)	YGWC-42 (071117)	YGWC-42 (101217)	YGWC-42 (040418)	YGWC-42 (092018)	YGWC-42 (032719)	YGWC-42 (082219)	YGWC-42 (100819)	YGWC-42 (100919)	
		2/27/2017	5/10/2017	7/11/2017	10/12/2017	4/4/2018	9/20/2018	3/27/2019	8/22/2019	10/8/2019	10/9/2019	
Appendix III	Boron	mg/l	17.9	20.4	25.2	20	22.7	20.3	20.3	NA	NA	16.6
	Calcium	mg/l	139	130	172	144	137	108	109	NA	NA	92
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	940	1200	1300	1100	1020	810	831	NA	NA	725
	Total Dissolved Solids	mg/l	1640	1630	1800	1600	1520	1240	1100	NA	NA	1170
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA
	Arsenic	mg/l	0.002 J	0.0022 J	0.003 J	0.0031 J	0.0023 J	0.0018 J	NA	0.00089 J	NA	0.00078 J
	Barium	mg/l	0.0573	0.0517	0.0451	0.0429	0.041	0.038	NA	0.031	NA	0.027
	Beryllium	mg/l	< 0.003	0.00009 J	0.0001 J	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	< 0.003
	Cadmium	mg/l	< 0.001	0.0002 J	0.0005 J	0.0006 J	< 0.001	0.0002 J	NA	0.00017 J	NA	0.00025 J
	Chromium	mg/l	< 0.01	0.0006 J	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	0.00043 J
	Cobalt	mg/l	0.0021 J	0.0021 J	0.0014 J	0.0017 J	< 0.01	0.003 J	NA	0.0019 J	NA	0.0019 J
	Lead	mg/l	< 0.005	0.00009 J	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	< 0.005
	Lithium	mg/l	0.0208 J	0.0316 J	0.0281 J	0.0331 J	0.037 J	0.049 J	NA	0.047	NA	0.037
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000048 J	NA	< 0.0005	NA	NA
	Molybdenum	mg/l	0.0031 J	0.0017 J	0.0014 J	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	< 0.01
	Combined Radium - 226/228	pci/l	2.5	2.55	3.94	3.57	1.9	1.94	NA	1.59	0.995 U	NA
	Selenium	mg/l	0.0316	0.053	0.0697	0.0594	0.055	0.041	NA	0.047	NA	0.042
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA
Field	Conductivity	µS/cm	1694.1	1632.5	1858.7	1798.2	1725.36	1386	1360.6	1289.9	NA	1293.2
	Dissolved Oxygen	mg/l	0.49	0.49	0.6	0.64	0.69	0.56	0.7	0.86	NA	1.44
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	59.3	57	43	118.9	112.33	83.9	121.1	114.2	NA	113.9
	pH	SU	6.09	5.79	5.45	5.48	5.93	5.63	5.57	5.61	NA	5.5
	Temperature	C	15.69	19.24	19.86	21.87	19.92	21.32	17.37	19.38	NA	19.84
	Turbidity	ntu	4.82	4.68	4.02	4.88	4.41	4.86	4.83	3.68	NA	3.38
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	4.7	4.4	4.7	4.3	3.7	3.8	3.9	NA	NA	4.1
	Fluoride	mg/l	0.06 J	< 0.3	< 0.3	< 0.3	< 0.3	0.041 J	< 0.3	< 0.3	NA	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-42	YGWC-42	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	
		YGWC-42 (021420)	YGWC-42 (032520)	YGWC-43 (083116)	YGWC-43 (111616)	YGWC-43 (022417)	YGWC-43 (051017)	YGWC-43 (071117)	YGWC-43 (101217)	YGWC-43 (040418)	YGWC-43 (092018)	
		2/14/2020	3/25/2020	8/31/2016	11/16/2016	2/24/2017	5/10/2017	7/11/2017	10/12/2017	4/4/2018	9/20/2018	
Appendix III	Boron	mg/l	NA	15.5	0.169	0.406	0.725	0.955	0.994	1.15	1.2	2.1
	Calcium	mg/l	NA	107 M1	3.4	3.79	6.42	7.9	6.71	7.05	8.6	15.9 J
	Chloride	mg/l	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoride	mg/l	< 0.050	< 0.050	NA	NA	NA	NA	NA	NA	NA	NA
	Sulfate	mg/l	NA	NA	34	240	89	100	110	120	160	247
	Total Dissolved Solids	mg/l	NA	1200	80	112	147	203	238	287	292	434
Appendix IV	Antimony	mg/l	< 0.00027	< 0.00027	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	0.0033 J	0.0013 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00099 J
	Barium	mg/l	0.031	0.030	0.0065 J	0.0092 J	0.0144	0.0173	0.0183	0.0205	0.024	0.035
	Beryllium	mg/l	< 0.000074	< 0.000074	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	0.0001 J	< 0.003	0.00029 J
	Cadmium	mg/l	0.00025 J	0.00021 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.00039	0.0013 J	< 0.01	< 0.01	< 0.01	0.0005 J	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	0.0019 J	0.0018 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0006 J	< 0.01	0.0034 J
	Lead	mg/l	< 0.000046	0.000047 J	< 0.005	< 0.005	< 0.005	0.00008 J	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	0.038	0.045	0.006 J	0.0095 J	0.0104 J	0.0123 J	0.0131 J	0.013 J	0.016 J	0.019 J
	Mercury	mg/l	< 0.00014	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000052 J
	Molybdenum	mg/l	< 0.00095	< 0.00095	0.0022 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	1.56	1.17 U	0.926 U	0.773 U	0.661 U	1.27	1.02	1.58	1.71	2.8
	Selenium	mg/l	0.040	0.046	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.000052	< 0.000052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	NA	NA	270.2	320.5	329.7	337.2	373.9	425.6	535.6
	Dissolved Oxygen	mg/l	NA	NA	NA	0.12	0.13	0.12	0.12	0.08	0.09	0.1
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	NA	NA	NA	-76.6	-25.4	-13.8	-71.5	41.7	77.1	-1
	pH	SU	5.80	5.53	7.27	6.79	6.39	6.5	6.32	5.97	6.41	5.69
	Temperature	C	NA	NA	NA	19.46	18.54	18.32	19.79	19.21	16.46	18.82
	Turbidity	ntu	NA	NA	NA	2.79	4.84	3.96	2.86	1.75	4.25	4.18
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	NA	NA	1.5	1.7	1.5	1.2	1.5	1.6	1.8	1.9
	Fluoride	mg/l	NA	NA	0.12 J	0.2 J	0.21 J	0.04 J	0.2 J	0.1 J	< 0.3	< 0.3
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-49	YGWC-49	YGWC-49	YGWC-49	
		YGWC-43 (032819)	YGWC-43 (082119)	YGWC-43 (100819)	YGWC-43 (100919)	YGWC-43 (021720)	YGWC-43 (032520)	YGWC-49 (090116)	YGWC-49 (111516)	YGWC-49 (022717)	YGWC-49 (050917)	
		3/28/2019	8/21/2019	10/8/2019	10/9/2019	2/17/2020	3/25/2020	9/1/2016	11/15/2016	2/27/2017	5/9/2017	
Appendix III	Boron	mg/l	1.8	NA	NA	2.7	NA	2.4	0.0113 J	0.0074 J	< 0.04	< 0.04
	Calcium	mg/l	8.9	NA	NA	18.2	NA	12.1	13.9	13.5	12.5	14.4
	Chloride	mg/l	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA
	Fluoride	mg/l	NA	NA	NA	NA	0.15 J	0.073 J	NA	NA	NA	NA
	Sulfate	mg/l	181	NA	NA	279	NA	NA	95	94	84	91
	Total Dissolved Solids	mg/l	323	NA	NA	501	NA	352	228	211	382	154
Appendix IV	Antimony	mg/l	NA	< 0.003	NA	NA	< 0.00027	0.00031 J	< 0.003	< 0.003	0.0011 J	< 0.003
	Arsenic	mg/l	NA	< 0.005	NA	0.00051 J	< 0.00035	0.00070 J	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	NA	0.03	NA	0.04	0.037	0.033	0.077	0.0772	0.0888	0.0792
	Beryllium	mg/l	NA	0.0003 J	NA	0.00034 J	0.00034 J	0.00034 J	0.0001 J	0.0001 J	0.0001 J	0.0001 J
	Cadmium	mg/l	NA	< 0.0025	NA	< 0.0025	< 0.00011	< 0.00011	< 0.001	< 0.001	0.00007 J	< 0.001
	Chromium	mg/l	NA	0.00062 J	NA	0.00074 J	< 0.00039	< 0.00039	0.0013 J	0.0014 J	0.0016 J	0.0017 J
	Cobalt	mg/l	NA	0.0026 J	NA	0.0023 J	0.00088 J	0.0016 J	< 0.01	0.0006 J	0.0008 J	< 0.01
	Lead	mg/l	NA	< 0.005	NA	< 0.005	< 0.000046	0.000075 J	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	NA	0.015 J	NA	0.018 J	0.015 J	0.016 J	0.0034 J	0.0044 J	0.0036 J	0.0038 J
	Mercury	mg/l	NA	< 0.0005	NA	NA	< 0.00014	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	0.0012 J	NA	0.0012 J	< 0.00095	0.0015 J	< 0.01	< 0.01	0.0007 J	< 0.01
	Combined Radium - 226/228	pci/l	NA	3.16	3.65	NA	4.19	3.04	1.2	0.645 U	0.244 U	0.519 U
	Selenium	mg/l	NA	< 0.01	NA	< 0.01	< 0.0013	< 0.0013	0.0086 J	0.0056 J	0.0098 J	0.0076 J
	Thallium	mg/l	NA	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.001	< 0.001	0.00009 J	< 0.001
Field	Conductivity	µS/cm	467.9	446.6	NA	596.2	NA	NA	NA	291.9	263.7	268.9
	Dissolved Oxygen	mg/l	0.06	0.08	NA	0.06	NA	NA	NA	1.3	1.62	1.64
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	71.8	36	NA	44.9	NA	NA	NA	48.1	67.8	141.5
	pH	SU	5.96	5.84	NA	5.78	5.93	5.79	5.78	5.81	5.68	6.18
	Temperature	C	18.26	23.97	NA	21.05	NA	NA	NA	18.83	16.68	20.69
	Turbidity	ntu	4.04	1.11	NA	3.12	NA	NA	NA	4.23	0.96	0.45
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chloride	mg/l	1.8	NA	NA	2.3	NA	NA	5.3	5.8	4.6	5.3
	Fluoride	mg/l	0.078 J	0.062 J	NA	< 0.3	NA	NA	0.09 J	0.16 J	0.06 J	0.05 J
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes can be found on last page.

Analyte	Units	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	
		YGWC-49 (071317)	YGWC-49 (101117)	YGWC-49 (040418)	YGWC-49 (092018)	YGWC-49 (032819)	YGWC-49 (092619)	YGWC-49 (101019)	YGWC-49 (021720)	YGWC-49 (032520)	
		7/13/2017	10/11/2017	4/4/2018	9/20/2018	3/28/2019	9/26/2019	10/10/2019	2/17/2020	3/25/2020	
Appendix III	Boron	mg/l	0.0093 J	< 0.04	0.0041 J	0.0042 J	< 0.04	< 0.04	NA	NA	0.012 J
	Calcium	mg/l	14.1	12.4	< 25	12 J	11.3 J	12.1	NA	NA	13.2
	Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	4.1
	Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.050	< 0.050
	Sulfate	mg/l	88	86	76.5	84.1	82.8	80	NA	NA	NA
	Total Dissolved Solids	mg/l	192	177	174	186	164	192	NA	NA	130
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	< 0.00027	0.00053 J
	Arsenic	mg/l	< 0.005	0.0006 J	< 0.005	0.001 J	NA	< 0.005	NA	0.0028 J	0.00086 J
	Barium	mg/l	0.0839	0.078	0.074	0.065	NA	0.065	NA	0.071	0.071
	Beryllium	mg/l	0.0001 J	0.0001 J	< 0.003 o	0.00011 J	NA	0.00013 J	NA	0.00011 J	0.00013 J
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.0025	NA	< 0.00011	< 0.00011
	Chromium	mg/l	0.0019 J	0.0014 J	< 0.01 o	0.0017 J	NA	NA	NA	0.0020 J	0.0019 J
	Cobalt	mg/l	0.0005 J	0.0006 J	< 0.01	< 0.01	NA	< 0.005	NA	< 0.00030	< 0.00030
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	0.000071 J	0.000059 J
	Lithium	mg/l	0.0036 J	0.0036 J	0.0039 J	0.0036 J	NA	0.0036 J	NA	0.0032 J	0.0037 J
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	0.000061 J	NA	NA	NA	< 0.00014	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	NA	NA	NA	< 0.00095	< 0.00095
	Combined Radium - 226/228	pci/l	0.5 U	1.41	0.442 U	1.14 U	NA	1.16 U	NA	1.52	1.20
	Selenium	mg/l	0.0093 J	0.0089 J	< 0.01	0.0081 J	NA	0.0077 J	NA	0.0068 J	0.0085 J
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	< 0.000052	< 0.000052
Field	Conductivity	µS/cm	266.2	266.9	263.3	249.3	259.5	241.05	NA	NA	NA
	Dissolved Oxygen	mg/l	1.6	1.76	1.94	2.03	2.08	2.37	NA	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oxidation Reduction Potential	mV	87.3	124.4	91	73.8	153.6	104.8	NA	NA	NA
	pH	SU	5.6	5.61	5.98	5.67	5.86	5.6	NA	5.82	5.69
	Temperature	C	20.66	22.55	18.21	20.75	17.72	20.91	NA	NA	NA
	Turbidity	ntu	0.78	4.3	1.92	1.29	2.67	1.86	NA	NA	NA
Supplemental	Alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alkalinity (as CaCO3)	mg/l	NA	NA	NA	NA	NA	NA	14.2	NA	NA
	Alkalinity, Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	14.2	NA	NA
	Alkalinity, Carbonate	mg/l	NA	NA	NA	NA	NA	NA	< 1	NA	NA
	Aluminum	mg/l	NA	NA	NA	NA	NA	NA	< 0.1	NA	NA
	Chloride	mg/l	4.7	5.8	4.3	4.8	4.4	5	NA	NA	NA
	Fluoride	mg/l	< 0.3	0.14 J	< 0.3	< 0.3	< 0.3	0.09 J	NA	NA	NA
	Iron (Ferric)	mg/l	NA	NA	NA	NA	NA	NA	<-0.2	NA	NA
	Iron (Ferrous)	mg/l	NA	NA	NA	NA	NA	NA	0	NA	NA
	Magnesium	mg/l	NA	NA	NA	NA	NA	NA	8.9	NA	NA
	Manganese	mg/l	NA	NA	NA	NA	NA	NA	0.0076 J	NA	NA
	Nitrate-N	mg/l	NA	NA	NA	NA	NA	NA	1.1	NA	NA
	Phosphorus	mg/l	NA	NA	NA	NA	NA	NA	< 0.02	NA	NA
	Potassium	mg/l	NA	NA	NA	NA	NA	NA	1.9	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	17.2	NA	NA	
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	< 1	NA	NA	

Notes can be found on last page.

Notes:

1. < indicates the analyte was not detected above the laboratory method detection limit (MDL).
2. J values indicate 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.
3. Detections are in **bold**
mg/L - milligrams per liter
pCi/L - picoCuries per liter
S.U. - Standard Units
C - Celcius
NTU - Nephelometric turbidity unit
CaCO₃ - Calcium carbonate
uS/cm - microsiemens/centimeter
mV - millivolts
NA - Not Analyzed
U - 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.
D6 - The precision between the sample and sample duplicate exceeded the laboratory control limits
B - Analyte was detected in the associated method blank

APPENDIX E

Statistical Analysis



March 2020

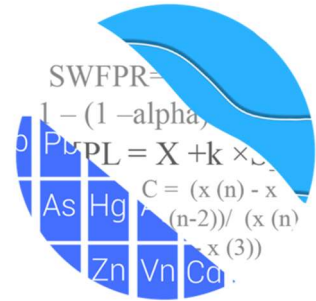
Semiannual Event



Appendix III Statistically Significant Increase Summary (March 2020)

Appendix III Parameter	Monitoring Wells
Boron	YGWC-23S, YGWC-33S, YGWC-38, YGWC-41, YGWC-42, YGWC-43
Calcium	YGWC-33S, YGWC-38, YGWC-42
pH	YGWC-33S
Sulfate	YGWC-33S, YGWC-38, YGWC-41, YGWC-42, YGWC-43, YGWC-49
Total Dissolved Solids	YGWC-33S, YGWC-38, YGWC-41, YGWC-42, YGWC-43

GROUNDWATER STATS CONSULTING



August 26, 2020

Southern Company Services
Attn: Ms. Lauren Petty
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Yates Ash Management Area (AMA) and R6 CCR Landfill
March 2020 Statistical Analysis

Dear Ms. Petty,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the March 2020 statistical analysis of groundwater data for Georgia Power Company's Plant Yates Ash Management Area (AMA) and R6 CCR Landfill. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the USEPA Unified Guidance (2009).

Sampling began for the CCR program in 2016, and at least 8 background samples have been collected at each of the groundwater monitoring wells.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** YGWA-17S, YGWA-18I, YGWA-18S, YGWA-20S, YGWA-21I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D, YGWA-5I
- **Downgradient wells:** YGWC-23S, YGWC-24S, YGWC-33S, YGWC-36, YGWC-38, YGWC-41, YGWC-42, YGWC-43, YGWC-49

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS;
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

Data at all wells were evaluated during the background screening conducted in April 2019 for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Background Screening Conducted in April 2019

Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified. When the most recent value is identified as an outlier, values are not flagged in the database at this time as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical

Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

None of the outliers identified by Tukey's method were flagged in the database as all values were either similar to remaining measurements within the same well and neighboring wells, or the values were reported nondetects. When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages will display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data. When the reporting limit was higher than the Regional Screening Levels discussed below, nondetects were substituted with one half the reporting limit.

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends, and the results of those findings were submitted with the screening. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed several statistically significant decreasing and increasing trends for the Appendix III parameters. Most of the trends noted were relatively low in magnitude when compared to average concentrations, and the background time period is short with only two years of record, making it difficult to separate trends from normal year-to-year variation; therefore, no adjustments were made to the data sets. If the observed decreasing or increasing trends persist over a longer time frame, some records may need to be truncated.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient well data for all Appendix III parameters. These constituents were further evaluated during the screening for the appropriateness of intrawell or interwell methods for each constituent. However, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

Statistical Analysis of Appendix III Parameters – March 2020

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed to evaluate compliance data at each of the downgradient wells (Figure C). Interwell limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. The confidence levels associated with parametric prediction limits are based on an overall false positive rate of 5%. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized where the highest background value is used to establish the upper prediction limit (and lowest value in the case of pH). The associated confidence level is dependent on the number of available background, future comparisons and resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (USEPA Unified Guidance, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% nondetects.
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Prediction limit exceedances were noted for Appendix III parameters. A summary table of the background prediction limits and exceedances follows this letter.

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure D). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. Several statistically significant decreasing trends were noted as may be seen on the summary table. Of particular interest are the decreasing trends for pH in background wells YGWA-18S, YGWA-39, YGWA-5D and downgradient well YGWC-33S. Statistically significant increasing trends were noted in downgradient well YGWC-43 for boron and TDS. Statistically significant increasing trends were also noted in upgradient wells for calcium and pH in well YGWA-21I; and sulfate in wells YGWA-4I, YGWA-5I and YGWA-17S. When significant trends are noted upgradient of the facility, it is an indication of natural variation in groundwater quality which may also be observed in downgradient wells. A summary of the trend test results follows this letter.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits will be necessary to accommodate these types of changes. In the interwell case, newer data will be included in background following each event, provided that upgradient well data are reviewed for outliers and trending data. In some cases, it may be necessary to deselect the earlier portion of data prior to construction of limits in order to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Statistical Analysis of Appendix IV Parameters – March 2020

Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents (Figure E). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for barium and radium. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a) (Figure G).

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

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, CCR-rule specified level (RSLs) have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the March 2020 sample event (Figure F). Confidence intervals were then constructed for each of the Appendix IV constituents in each downgradient well (Figure G). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Exceedances were noted for beryllium in wells YGWC-33S and YGWC-38; cobalt in well YGWC-33S; and selenium in wells YGWC-38 and YGWC-41. A summary of the confidence intervals follows this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Yates Ash Management Area (AMA) and R6 CCR Landfill. If you have any questions or comments, please feel free to contact me.

For Groundwater Stats Consulting,

A handwritten signature in cursive script that reads "Kristina Rayner".

Kristina L. Rayner
Groundwater Statistician

Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 2:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	YGWC-23S	0.16	n/a	3/26/2020	0.94	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-33S	0.16	n/a	3/25/2020	5.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-38	0.16	n/a	3/25/2020	9.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-41	0.16	n/a	3/25/2020	7.9	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-42	0.16	n/a	3/25/2020	15.5	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-43	0.16	n/a	3/25/2020	2.4	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	3/25/2020	97.8	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-38	37	n/a	3/25/2020	124	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-42	37	n/a	3/25/2020	107	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-33S	7.67	4.86	3/25/2020	3.86	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-33S	71	n/a	3/25/2020	448	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-38	71	n/a	3/25/2020	483	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-41	71	n/a	3/25/2020	214	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-42	71	n/a	3/25/2020	642	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-43	71	n/a	3/25/2020	164	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-49	71	n/a	3/25/2020	76.1	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-33S	185.4	n/a	3/25/2020	839	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-38	185.4	n/a	3/25/2020	883	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-41	185.4	n/a	3/25/2020	428	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-42	185.4	n/a	3/25/2020	1200	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-43	185.4	n/a	3/25/2020	352	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2

Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 2:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	YGWC-23S	0.16	n/a	3/26/2020	0.94	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-24S	0.16	n/a	3/26/2020	0.033	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-33S	0.16	n/a	3/25/2020	5.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-36	0.16	n/a	3/25/2020	0.11	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-38	0.16	n/a	3/25/2020	9.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-41	0.16	n/a	3/25/2020	7.9	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-42	0.16	n/a	3/25/2020	15.5	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-43	0.16	n/a	3/25/2020	2.4	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-49	0.16	n/a	3/25/2020	0.012	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-23S	37	n/a	3/26/2020	5.6	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-24S	37	n/a	3/26/2020	1.7	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	3/25/2020	97.8	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-36	37	n/a	3/25/2020	10.6	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-38	37	n/a	3/25/2020	124	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-41	37	n/a	3/25/2020	29.6	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-42	37	n/a	3/25/2020	107	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-43	37	n/a	3/25/2020	12.1	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-49	37	n/a	3/25/2020	13.2	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-23S	7.9	n/a	3/26/2020	1.6	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-24S	7.9	n/a	3/26/2020	5.4	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-33S	7.9	n/a	3/25/2020	3.8	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-36	7.9	n/a	3/25/2020	6.3	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-38	7.9	n/a	3/25/2020	4	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-41	7.9	n/a	3/25/2020	2.7	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-42	7.9	n/a	3/25/2020	3.2	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-43	7.9	n/a	3/25/2020	1.8	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-49	7.9	n/a	3/25/2020	4.1	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-23S	0.32	n/a	3/26/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-24S	0.32	n/a	3/26/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-33S	0.32	n/a	3/25/2020	0.25	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-36	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-38	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-41	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-42	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-43	0.32	n/a	3/25/2020	0.073	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-49	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-23S	7.67	4.86	3/26/2020	5.69	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-24S	7.67	4.86	3/26/2020	5.51	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-33S	7.67	4.86	3/25/2020	3.86	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-36	7.67	4.86	3/25/2020	5.49	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-38	7.67	4.86	3/25/2020	4.89	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-41	7.67	4.86	3/25/2020	4.87	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-42	7.67	4.86	3/25/2020	5.53	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-43	7.67	4.86	3/25/2020	5.79	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-49	7.67	4.86	3/25/2020	5.69	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-23S	71	n/a	3/26/2020	36.5	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-24S	71	n/a	3/26/2020	0.5ND	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-33S	71	n/a	3/25/2020	448	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-36	71	n/a	3/25/2020	58.8	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-38	71	n/a	3/25/2020	483	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 2:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Sulfate (mg/L)	YGWC-41	71	n/a	3/25/2020	214	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-42	71	n/a	3/25/2020	642	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-43	71	n/a	3/25/2020	164	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-49	71	n/a	3/25/2020	76.1	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-23S	185.4	n/a	3/26/2020	110	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-24S	185.4	n/a	3/26/2020	67	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-33S	185.4	n/a	3/25/2020	839	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-36	185.4	n/a	3/25/2020	164	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-38	185.4	n/a	3/25/2020	883	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-41	185.4	n/a	3/25/2020	428	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-42	185.4	n/a	3/25/2020	1200	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-43	185.4	n/a	3/25/2020	352	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-49	185.4	n/a	3/25/2020	130	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2

Trend Test Summary - Significant Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWC-43	0.6477	51	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-211 (bg)	2.207	53	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-38	-25.87	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-18S (bg)	-0.08453	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-211 (bg)	0.2542	65	58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-39 (bg)	-0.3058	-47	-38	Yes	12	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-5D (bg)	-0.1483	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWC-33S	-0.3435	-147	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-17S (bg)	0.2314	52	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-40 (bg)	-17.01	-35	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-4l (bg)	0.3067	53	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5D (bg)	-4.378	-68	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5l (bg)	0.1217	55	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-38	-102.7	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-41	-85.6	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-49	-4.89	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-41	-120.9	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-43	131	49	34	Yes	11	0	n/a	n/a	0.01	NP

Trend Test Summary - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWA-17S (bg)	-0.0002523	-8	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18I (bg)	0	-30	-48	No	14	78.57	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18S (bg)	-0.0003116	-11	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-20S (bg)	0	-5	-48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-21I (bg)	-0.00632	-39	-48	No	14	64.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-39 (bg)	0.002401	6	34	No	11	9.091	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-40 (bg)	-0.0315	-24	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-4I (bg)	0	-15	-48	No	14	64.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5D (bg)	0.0006887	26	48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5I (bg)	0	-33	-48	No	14	64.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-23S	-0.2383	-46	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-33S	-0.09196	-2	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-38	-3.784	-33	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-41	-2.225	-21	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-42	-1.254	-14	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-43	0.6477	51	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-17S (bg)	0.1071	40	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-18I (bg)	0.01475	6	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-18S (bg)	-0.08778	-40	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-20S (bg)	0.1183	41	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-21I (bg)	2.207	53	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-39 (bg)	-0.23	-10	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-40 (bg)	-1.297	-28	-34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-4I (bg)	0.4896	40	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5D (bg)	-2.47	-43	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5I (bg)	0.06941	26	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-33S	-1.161	-7	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-38	-25.87	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-42	-11.17	-23	-34	No	11	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-17S (bg)	-0.00607	-22	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-18I (bg)	-0.0211	-21	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-18S (bg)	-0.08453	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-20S (bg)	0.03732	48	58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-21I (bg)	0.2542	65	58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-39 (bg)	-0.3058	-47	-38	Yes	12	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-40 (bg)	0.02308	2	38	No	12	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-4I (bg)	-0.01041	-14	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-5D (bg)	-0.1483	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-5I (bg)	-0.0216	-25	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWC-33S	-0.3435	-147	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-17S (bg)	0.2314	52	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18I (bg)	-0.2926	-34	-48	No	14	21.43	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18S (bg)	-0.2179	-38	-48	No	14	14.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-20S (bg)	0	12	48	No	14	57.14	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-21I (bg)	-0.3724	-11	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-39 (bg)	-3.919	-27	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-40 (bg)	-17.01	-35	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-4I (bg)	0.3067	53	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5D (bg)	-4.378	-68	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5I (bg)	0.1217	55	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-33S	-76.07	-31	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-38	-102.7	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-41	-85.6	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-42	-94.68	-26	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-43	49.2	33	34	No	11	0	n/a	n/a	0.01	NP

Trend Test Summary - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	YGWC-49	-4.89	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-17S (bg)	5.544	21	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18I (bg)	-2.555	-12	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18S (bg)	6.215	22	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-20S (bg)	7.597	35	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-21I (bg)	24.57	43	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-39 (bg)	4.803	7	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-40 (bg)	-19.81	-27	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-4I (bg)	7.969	29	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-5D (bg)	-15	-45	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-5I (bg)	1.982	11	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-33S	-39.38	-34	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-38	-148.4	-25	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-41	-120.9	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-42	-143.1	-33	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-43	131	49	34	Yes	11	0	n/a	n/a	0.01	NP

Tolerance Limit Summary Table - Appendix IV

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:38 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0035	n/a	124	n/a	n/a	91.13	n/a	n/a	0.001729	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	142	n/a	n/a	83.1	n/a	n/a	0.0006867	NP Inter(NDs)
Barium (mg/L)	n/a	0.0671	n/a	142	n/a	n/a	2.817	n/a	n/a	0.0006867	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	n/a	142	n/a	n/a	80.99	n/a	n/a	0.0006867	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	142	n/a	n/a	97.18	n/a	n/a	0.0006867	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	110	n/a	n/a	78.18	n/a	n/a	0.003545	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.013	n/a	142	n/a	n/a	79.58	n/a	n/a	0.0006867	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	6.92	n/a	141	n/a	n/a	0	n/a	n/a	0.0007228	NP Inter(normality)
Fluoride (mg/L)	n/a	0.32	n/a	152	n/a	n/a	87.5	n/a	n/a	0.0004111	NP Inter(NDs)
Lead (mg/L)	n/a	0.005	n/a	126	n/a	n/a	86.51	n/a	n/a	0.00156	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	142	n/a	n/a	30.99	n/a	n/a	0.0006867	NP Inter(normality)
Mercury (mg/L)	n/a	0.0005	n/a	106	n/a	n/a	94.34	n/a	n/a	0.004352	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	110	n/a	n/a	80.91	n/a	n/a	0.003545	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	142	n/a	n/a	86.62	n/a	n/a	0.0006867	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	125	n/a	n/a	100	n/a	n/a	0.001642	NP Inter(NDs)

PLANT AMA-R6 GWPS			
Constituent Name	MCL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006	0.0035	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.067	2
Beryllium, Total (mg/L)	0.004	0.003	0.004
Cadmium, Total (mg/L)	0.005	0.0025	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.013	0.013
Combined Radium, Total (pCi/L)	5	6.92	6.92
Fluoride, Total (mg/L)	4	0.32	4
Lead, Total (mg/L)	n/a	0.005	0.005
Lithium, Total (mg/L)	n/a	0.03	0.03
Mercury, Total (mg/L)	0.002	0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.01	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

**Grey cell indicates background is higher than MCL.*

**MCL = Maximum Contaminant Level*

Confidence Interval Summary Table - Significant Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	YGWC-33S	0.01955	0.01454	0.004	Yes	15	0.01717	0.003916	0	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	YGWC-38	0.005717	0.004702	0.004	Yes	11	0.005209	0.000609	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-33S	0.02603	0.01477	0.013	Yes	15	0.0204	0.008309	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-38	0.2511	0.1547	0.05	Yes	11	0.2029	0.05784	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-41	0.06837	0.05309	0.05	Yes	11	0.05907	0.01451	0	None	x^3	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-23S	0.003	0.00029	0.006	No	13	0.002792	0.0007516	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-24S	0.003	0.0009	0.006	No	13	0.002838	0.0005824	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-33S	0.003	0.003	0.006	No	13	0.003	0	100	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-36	0.002291	0.0004486	0.006	No	13	0.002738	0.001558	53.85	Kapla...	sqrt(x)	0.01	Param.
Antimony (mg/L)	YGWC-38	0.003	0.0015	0.006	No	10	0.002613	0.0008412	80	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-41	0.003	0.003	0.006	No	10	0.003	0	100	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-42	0.003	0.003	0.006	No	10	0.003	0	100	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-43	0.003	0.003	0.006	No	10	0.002731	0.0008507	90	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-49	0.003	0.0011	0.006	No	10	0.002563	0.000931	80	Kapla...	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-23S	0.005	0.0012	0.01	No	15	0.004747	0.0009812	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.005	0.0015	0.01	No	15	0.004767	0.0009037	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.004793	0.002861	0.01	No	15	0.003827	0.001426	6.667	None	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.005	0.00066	0.01	No	15	0.004124	0.001814	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-38	0.001615	0.0006536	0.01	No	11	0.001135	0.0005771	0	None	No	0.01	Param.
Arsenic (mg/L)	YGWC-41	0.005	0.00052	0.01	No	11	0.002302	0.00215	36.36	None	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-42	0.002574	0.001312	0.01	No	11	0.001943	0.0007573	0	None	No	0.01	Param.
Arsenic (mg/L)	YGWC-43	0.005	0.0007	0.01	No	11	0.003836	0.001996	72.73	None	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-49	0.005	0.00086	0.01	No	10	0.003746	0.002021	70	None	No	0.011	NP (normality)
Barium (mg/L)	YGWC-23S	0.04614	0.0268	2	No	15	0.03647	0.01427	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01975	0.01865	2	No	15	0.01917	0.0008591	0	None	x^4	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01741	0.01104	2	No	15	0.01441	0.005105	6.667	None	sqrt(x)	0.01	Param.
Barium (mg/L)	YGWC-36	0.04604	0.03306	2	No	15	0.0387	0.01078	0	None	x^2	0.01	Param.
Barium (mg/L)	YGWC-38	0.02507	0.02012	2	No	11	0.02259	0.00297	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-41	0.0325	0.02317	2	No	11	0.02784	0.005599	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-42	0.0505	0.0338	2	No	11	0.04215	0.01002	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-43	0.03161	0.01352	2	No	11	0.02256	0.01086	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-49	0.08269	0.07093	2	No	10	0.07681	0.006586	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.003	0.000077	0.004	No	15	0.001058	0.001422	33.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.003	0.0001	0.004	No	15	0.000698	0.001192	20	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.01955	0.01454	0.004	Yes	15	0.01717	0.003916	0	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	YGWC-36	0.00033	0.0002	0.004	No	15	0.000446	0.0007109	6.667	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-38	0.005717	0.004702	0.004	Yes	11	0.005209	0.000609	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-41	0.003766	0.003074	0.004	No	11	0.003364	0.0005201	0	None	x^5	0.01	Param.
Beryllium (mg/L)	YGWC-42	0.003	0.00009	0.004	No	11	0.002207	0.001358	72.73	None	No	0.006	NP (normality)
Beryllium (mg/L)	YGWC-43	0.003	0.00029	0.004	No	11	0.001761	0.001425	54.55	None	No	0.006	NP (normality)
Beryllium (mg/L)	YGWC-49	0.00013	0.0001	0.004	No	10	0.000397	0.0009147	10	None	No	0.011	NP (normality)
Cadmium (mg/L)	YGWC-23S	0.0025	0.00007	0.005	No	15	0.002338	0.0006274	93.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.0025	0.0025	0.005	No	15	0.0025	0	100	None	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003063	0.002068	0.005	No	15	0.002565	0.0007337	0	None	No	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0025	0.00015	0.005	No	15	0.000484	0.0008192	13.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-38	0.002911	0.002324	0.005	No	11	0.002609	0.0003807	0	None	x^2	0.01	Param.
Cadmium (mg/L)	YGWC-41	0.0025	0.00017	0.005	No	11	0.0006273	0.0009268	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	YGWC-42	0.0025	0.0002	0.005	No	11	0.001103	0.001116	36.36	None	No	0.006	NP (normality)
Cadmium (mg/L)	YGWC-43	0.0025	0.0025	0.005	No	11	0.0025	0	100	None	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-49	0.0025	0.0025	0.005	No	10	0.002257	0.0007684	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	YGWC-23S	0.01	0.0008	0.1	No	11	0.007582	0.004152	72.73	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-24S	0.01	0.0011	0.1	No	11	0.008367	0.003633	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-33S	0.01	0.0012	0.1	No	11	0.006155	0.004431	54.55	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-36	0.01	0.0035	0.1	No	11	0.008567	0.003247	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-38	0.01	0.00065	0.1	No	11	0.008286	0.003813	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-41	0.01	0.01	0.1	No	11	0.009126	0.002898	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-42	0.01	0.0006	0.1	No	11	0.007485	0.004313	72.73	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-43	0.01	0.00062	0.1	No	11	0.007442	0.004382	72.73	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-49	0.01	0.0013	0.1	No	9	0.002544	0.002804	11.11	None	No	0.002	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.005	0.013	No	15	0.005	0	100	None	No	0.01	NP (NDs)

Confidence Interval Summary Table - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	YGWC-24S	0.005	0.005	0.013	No	15	0.005	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02603	0.01477	0.013	Yes	15	0.0204	0.008309	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	15	0.004097	0.001869	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-38	0.005	0.005	0.013	No	11	0.005	0	100	None	No	0.006	NP (NDs)
Cobalt (mg/L)	YGWC-41	0.005	0.0003	0.013	No	11	0.003399	0.002231	63.64	None	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-42	0.002884	0.001638	0.013	No	11	0.002309	0.0009864	9.091	None	ln(x)	0.01	Param.
Cobalt (mg/L)	YGWC-43	0.005	0.0016	0.013	No	11	0.003682	0.001656	54.55	None	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-49	0.005	0.0006	0.013	No	10	0.00325	0.00226	60	None	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	0.8402	0.2935	6.92	No	15	0.5669	0.4034	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.8174	0.4518	6.92	No	15	0.6346	0.2697	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.418	0.7125	6.92	No	15	1.065	0.5205	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.114	0.5732	6.92	No	15	0.8437	0.3992	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-38	1.5	0.6416	6.92	No	11	1.071	0.5152	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-41	1.548	0.5806	6.92	No	11	1.082	0.6178	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-42	3.353	1.584	6.92	No	11	2.469	1.061	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-43	2.778	0.966	6.92	No	11	1.872	1.087	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-49	1.216	0.4762	6.92	No	10	0.846	0.4145	0	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.3	0.12	4	No	16	0.2562	0.09577	81.25	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.3	0.098	4	No	16	0.2707	0.08097	87.5	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5075	0.2094	4	No	16	0.3881	0.3056	6.25	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.3	0.05	4	No	16	0.2035	0.1181	56.25	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-38	0.2933	0.08603	4	No	12	0.277	0.1023	50	Kapla...	No	0.01	Param.
Fluoride (mg/L)	YGWC-41	0.3	0.11	4	No	12	0.2675	0.07593	83.33	Kapla...	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-42	0.3	0.041	4	No	12	0.2159	0.1247	66.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-43	0.1517	0.06199	4	No	12	0.1653	0.09893	25	Kapla...	No	0.01	Param.
Fluoride (mg/L)	YGWC-49	0.3	0.06	4	No	11	0.19	0.1097	45.45	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-23S	0.005	0.00044	0.005	No	13	0.004275	0.001772	84.62	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-24S	0.005	0.000053	0.005	No	13	0.004619	0.001372	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-33S	0.001367	0.0006861	0.005	No	13	0.002108	0.001717	23.08	Kapla...	x^(1/3)	0.01	Param.
Lead (mg/L)	YGWC-36	0.0017	0.0002	0.005	No	13	0.001108	0.001774	15.38	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-38	0.005	0.0001	0.005	No	11	0.003664	0.002289	72.73	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-41	0.005	0.00007	0.005	No	11	0.003305	0.002368	63.64	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-42	0.005	0.00009	0.005	No	11	0.003667	0.002283	72.73	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-43	0.005	0.00008	0.005	No	11	0.004105	0.001991	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-49	0.005	0.005	0.005	No	10	0.004506	0.001562	90	None	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-23S	0.0025	0.0017	0.03	No	15	0.003013	0.003363	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-24S	0.015	0.015	0.03	No	15	0.015	0	100	None	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.02899	0.01907	0.03	No	15	0.02403	0.007318	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-36	0.006331	0.004669	0.03	No	15	0.005407	0.001354	0	None	x^2	0.01	Param.
Lithium (mg/L)	YGWC-38	0.0095	0.0081	0.03	No	11	0.008709	0.0006188	0	None	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-41	0.0047	0.0032	0.03	No	11	0.004882	0.003398	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-42	0.04238	0.02606	0.03	No	11	0.03422	0.009791	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-43	0.0167	0.01027	0.03	No	11	0.01348	0.003859	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-49	0.0039	0.0036	0.03	No	10	0.00372	0.0002741	0	None	No	0.011	NP (normality)
Mercury (mg/L)	YGWC-23S	0.0005	0.0005	0.002	No	11	0.0004635	0.0001212	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-24S	0.0005	0.0005	0.002	No	11	0.0005	0	100	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-33S	0.0005	0.0005	0.002	No	11	0.0005	0	100	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-36	0.0005	0.0005	0.002	No	11	0.0005	0	100	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-38	0.0005	0.000037	0.002	No	9	0.0004019	0.000195	77.78	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-41	0.0005	0.00006	0.002	No	9	0.0004511	0.0001467	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-42	0.0005	0.000048	0.002	No	9	0.0004498	0.0001507	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-43	0.0005	0.000052	0.002	No	9	0.0004502	0.0001493	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-49	0.0005	0.000061	0.002	No	8	0.0004451	0.0001552	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	YGWC-23S	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-24S	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)

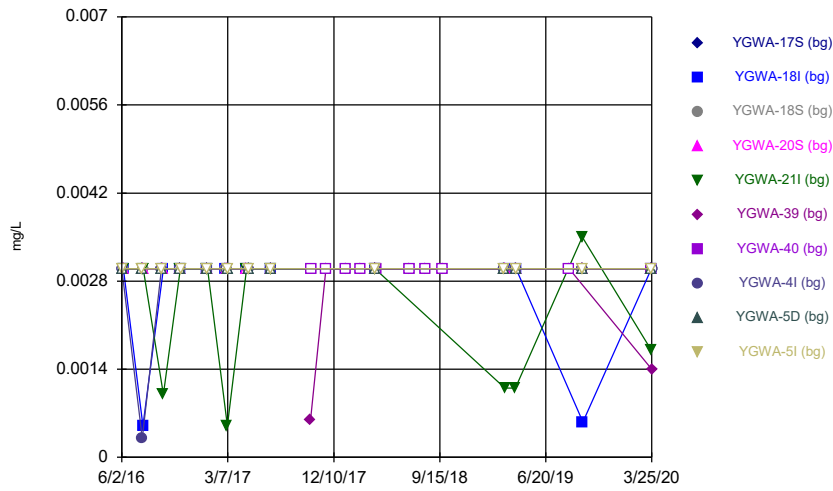
Confidence Interval Summary Table - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	YGWC-33S	0.01	0.00095	0.01	No	11	0.008314	0.003753	81.82	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-36	0.01	0.0025	0.01	No	11	0.007045	0.003665	54.55	None	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-38	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-41	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-42	0.01	0.0017	0.01	No	11	0.006436	0.004119	54.55	None	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-43	0.01	0.0012	0.01	No	11	0.006918	0.004284	63.64	None	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-49	0.01	0.0007	0.01	No	9	0.008967	0.0031	88.89	None	No	0.002	NP (NDs)
Selenium (mg/L)	YGWC-23S	0.04108	0.02528	0.05	No	15	0.03318	0.01166	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.01	0.01	0.05	No	15	0.01	0	100	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.01576	0.008984	0.05	No	15	0.01237	0.005001	6.667	None	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.01	0.0018	0.05	No	15	0.00392	0.003213	20	None	No	0.01	NP (normality)
Selenium (mg/L)	YGWC-38	0.2511	0.1547	0.05	Yes	11	0.2029	0.05784	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-41	0.06837	0.05309	0.05	Yes	11	0.05907	0.01451	0	None	x^3	0.01	Param.
Selenium (mg/L)	YGWC-42	0.06096	0.03852	0.05	No	11	0.04974	0.01347	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-43	0.01	0.01	0.05	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Selenium (mg/L)	YGWC-49	0.00955	0.00727	0.05	No	10	0.00841	0.001278	10	None	No	0.01	Param.
Thallium (mg/L)	YGWC-23S	0.001	0.001	0.002	No	13	0.001	0	100	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-24S	0.001	0.001	0.002	No	13	0.001	0	100	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-33S	0.0002493	0.0001146	0.002	No	13	0.0004454	0.0003932	30.77	Kapla...	ln(x)	0.01	Param.
Thallium (mg/L)	YGWC-36	0.001	0.001	0.002	No	13	0.001	0	100	Kapla...	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-38	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-41	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-42	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-43	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-49	0.001	0.001	0.002	No	10	0.000909	0.0002878	90	Kapla...	No	0.011	NP (NDs)

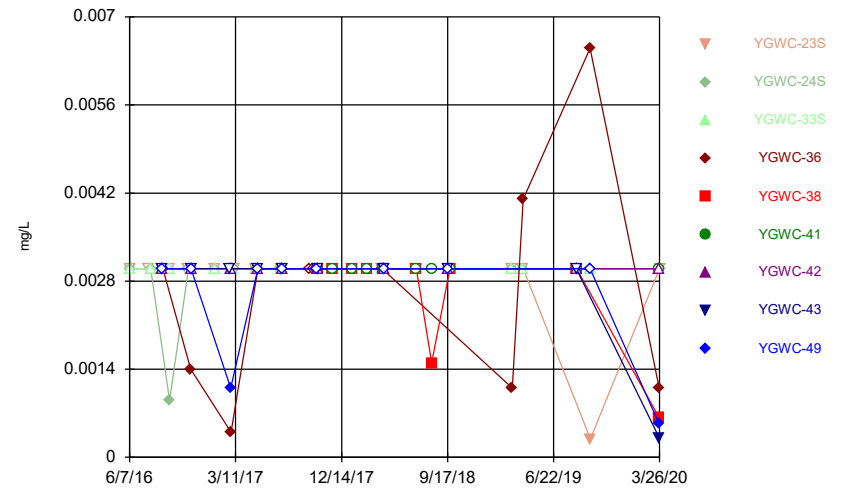
FIGURE A.

Time Series



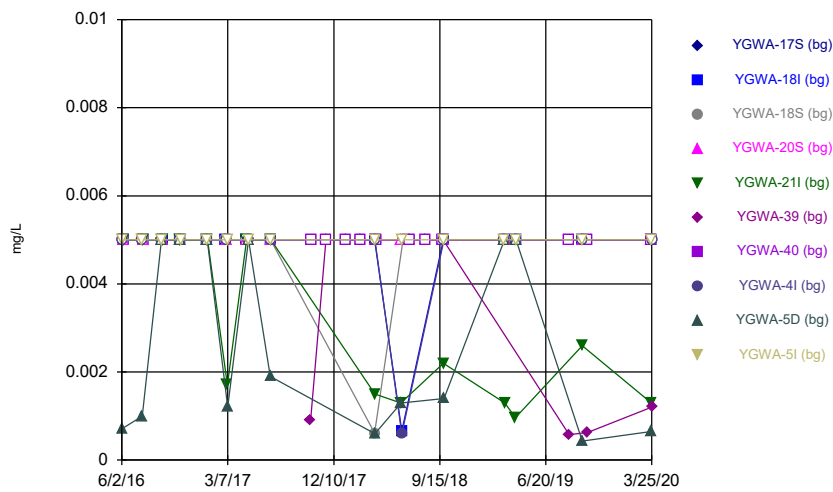
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



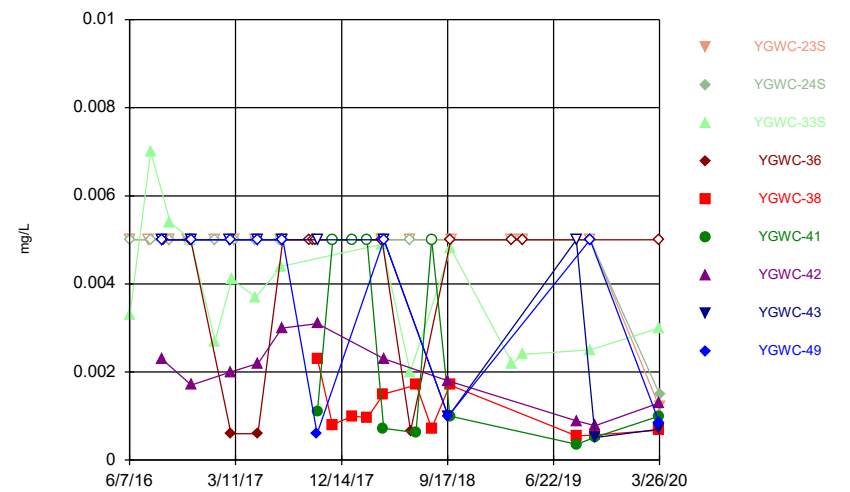
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Time Series



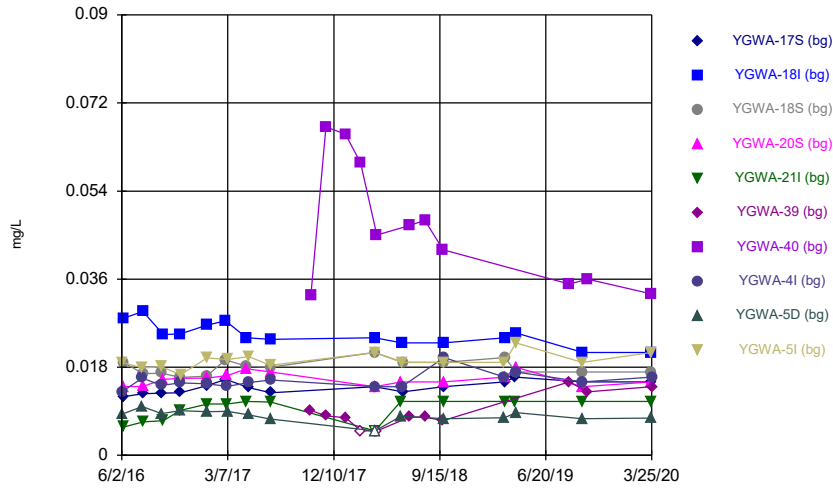
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Time Series



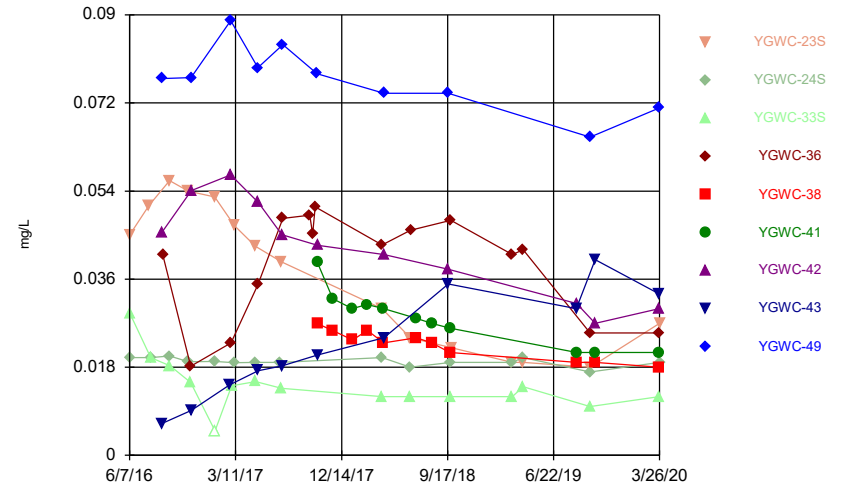
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Time Series



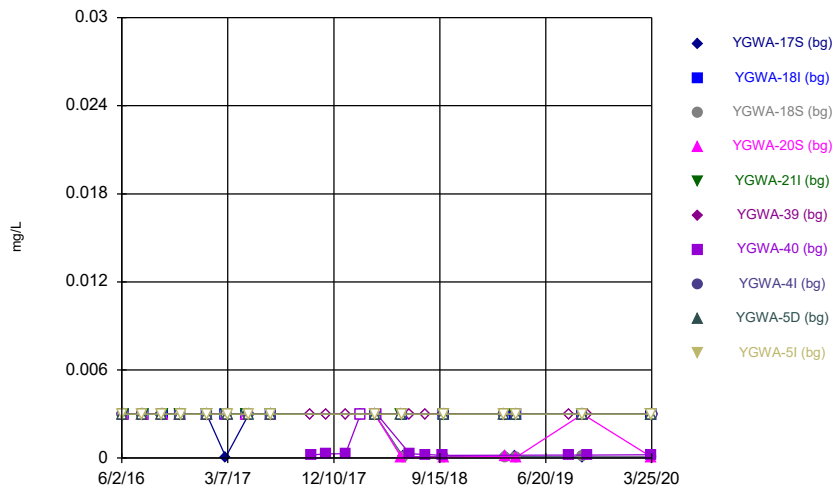
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



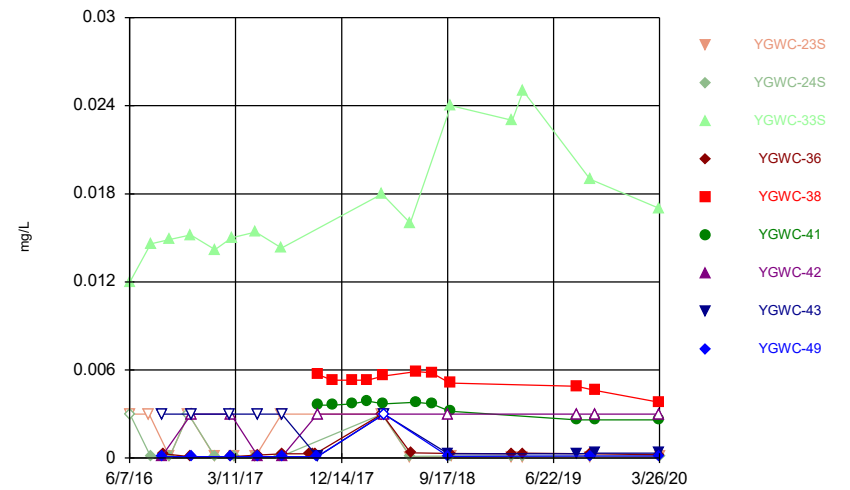
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



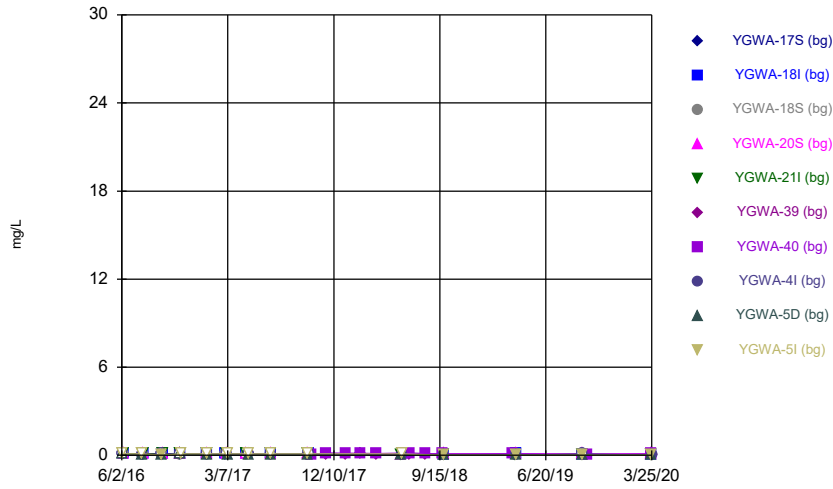
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Time Series



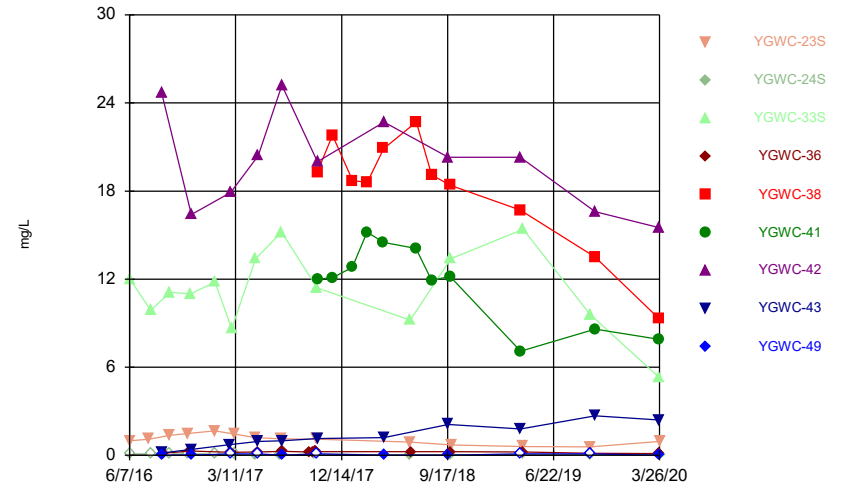
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Time Series



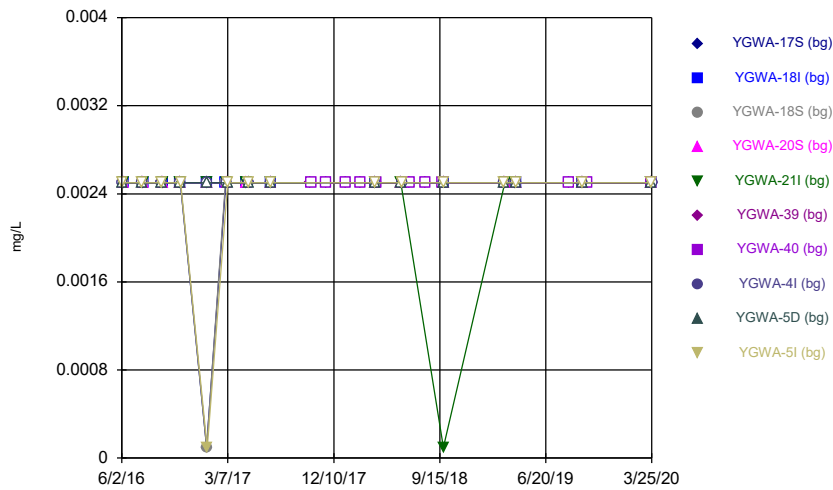
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



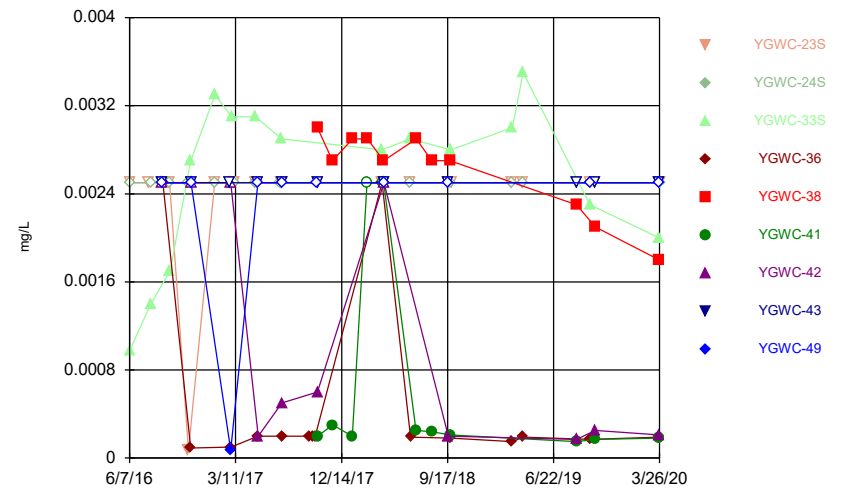
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Time Series



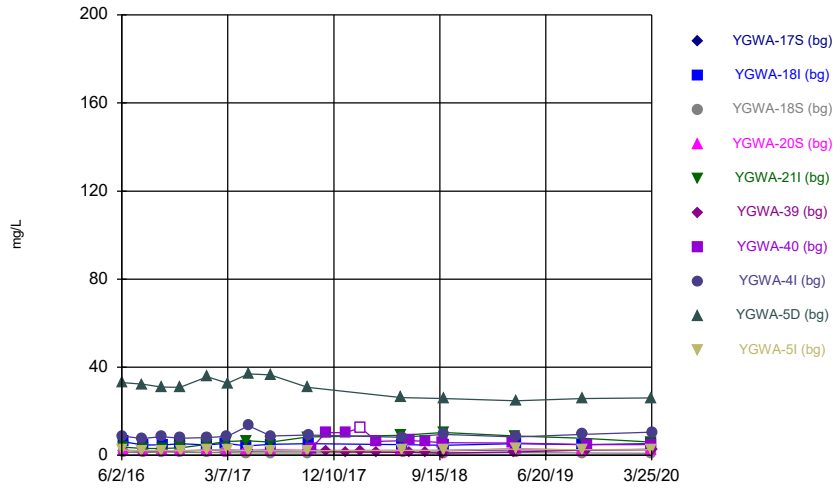
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



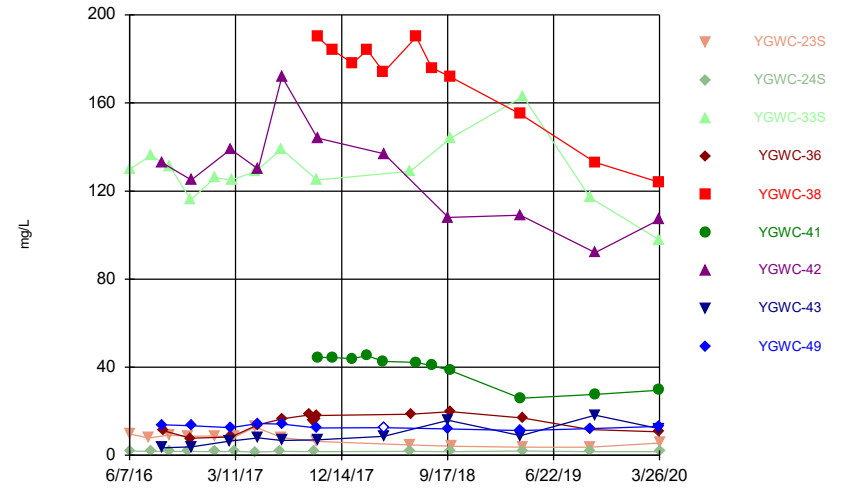
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



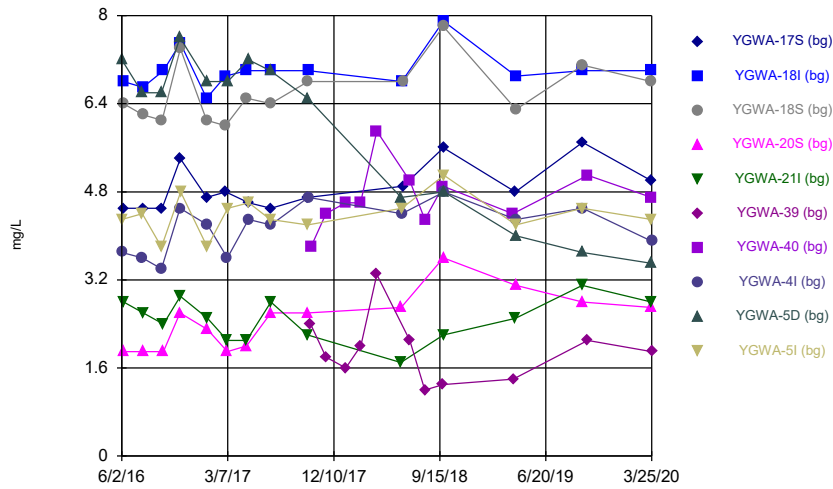
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



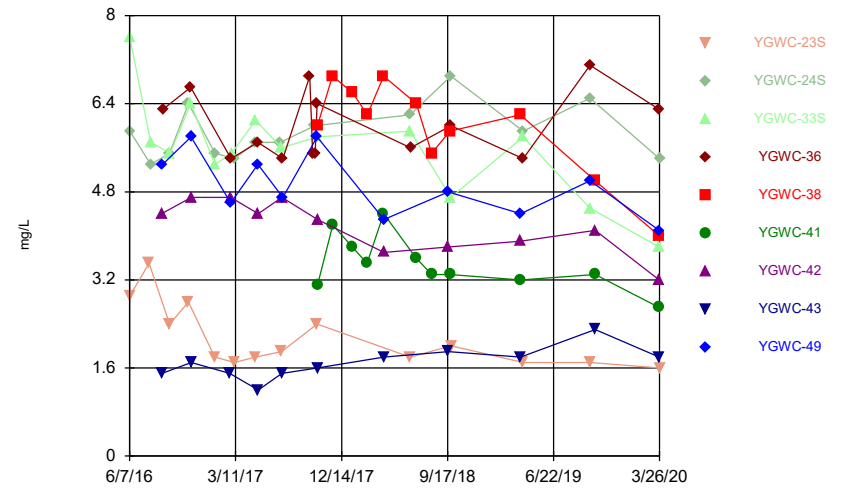
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



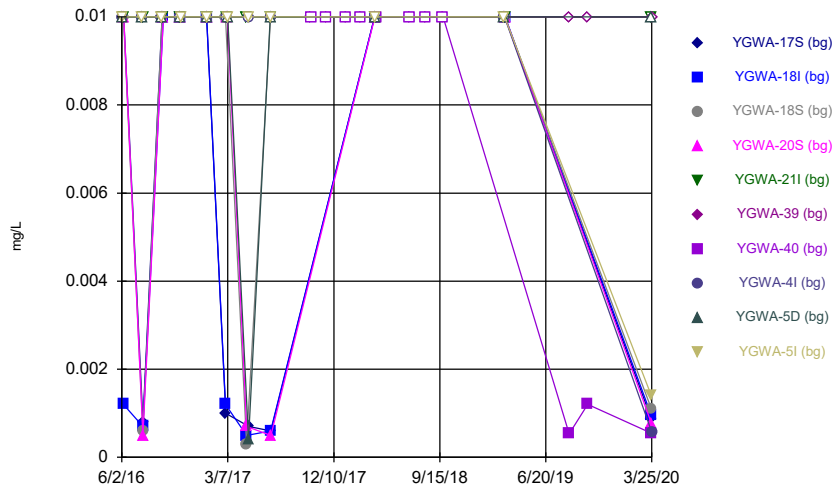
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



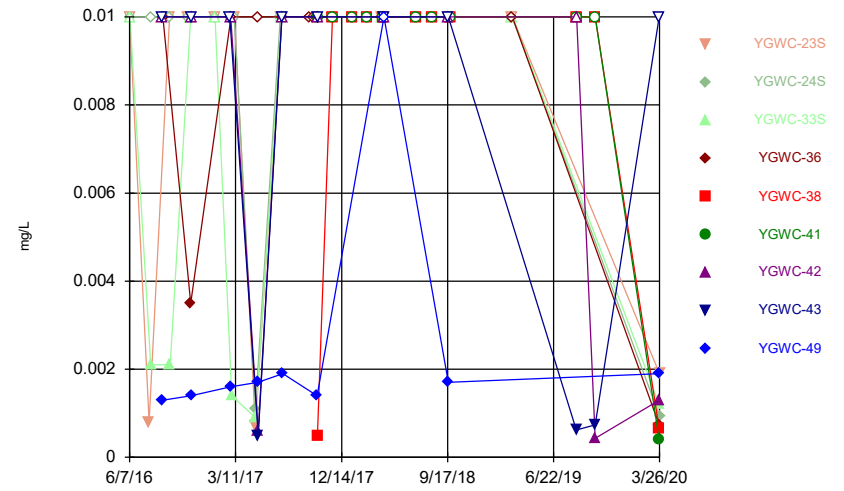
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



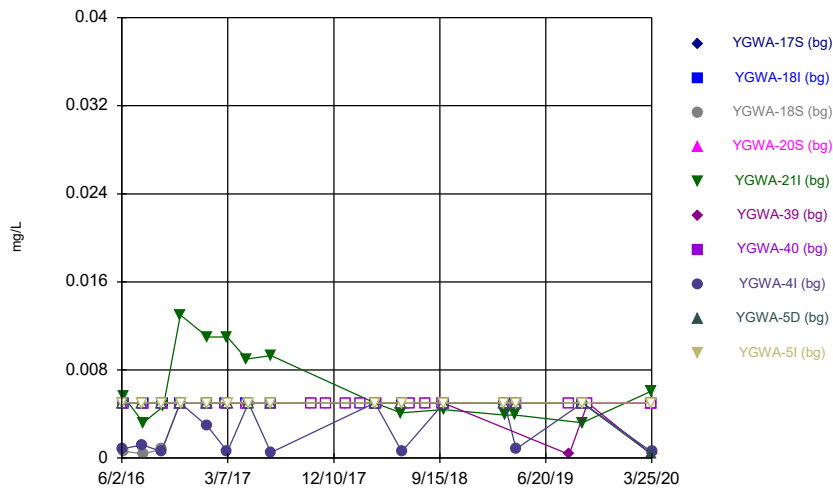
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



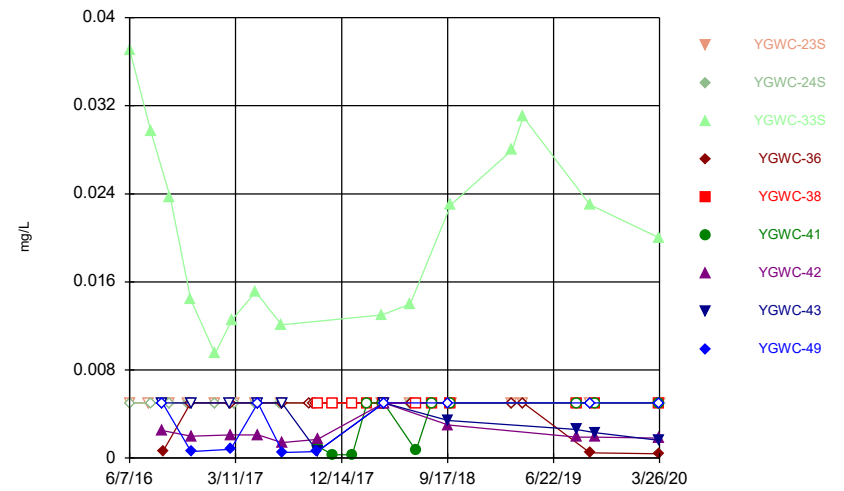
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



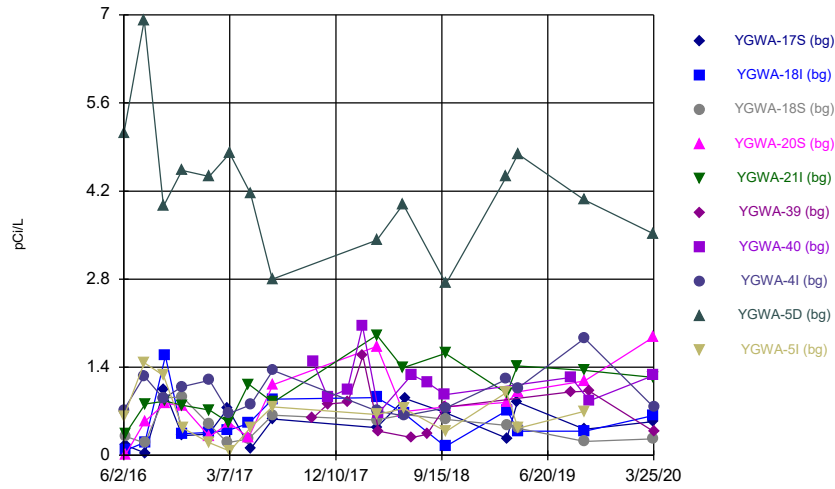
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



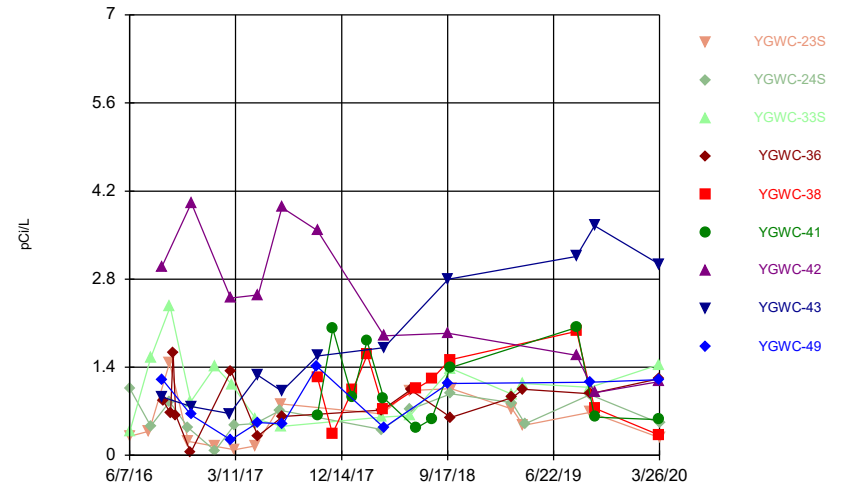
Constituent: Cobalt Analysis Run 5/5/2020 3:10 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



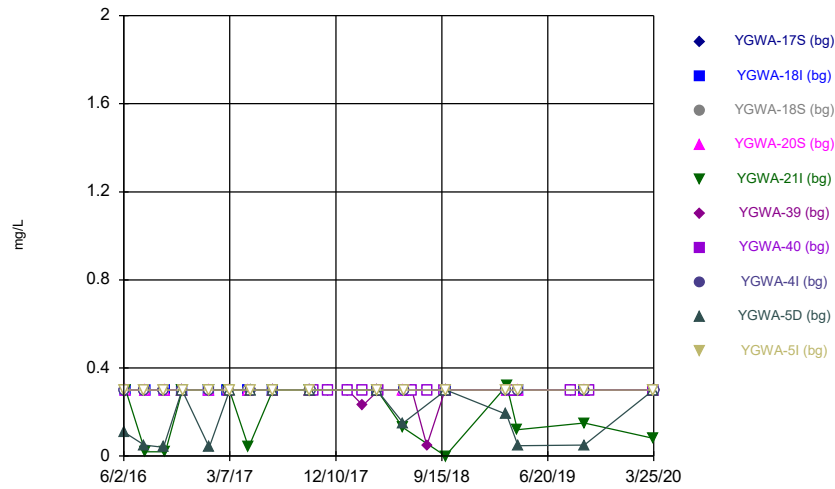
Constituent: Combined Radium 226 + 228 Analysis Run 5/5/2020 3:10 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



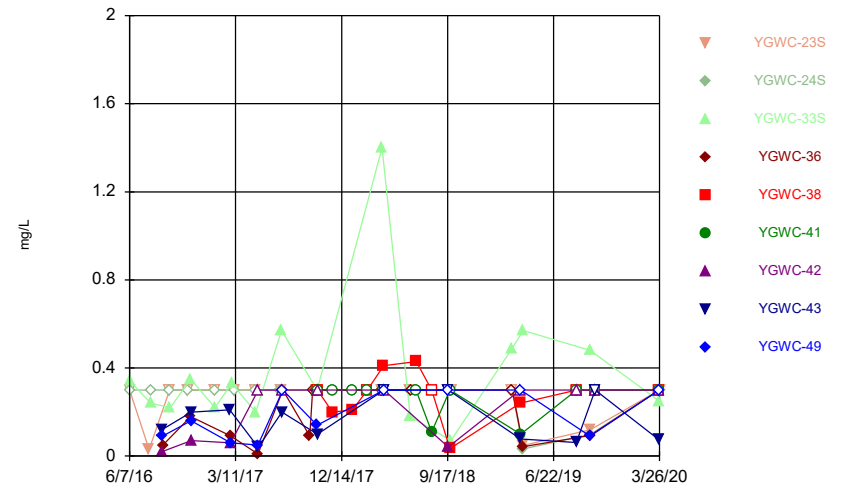
Constituent: Combined Radium 226 + 228 Analysis Run 5/5/2020 3:10 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



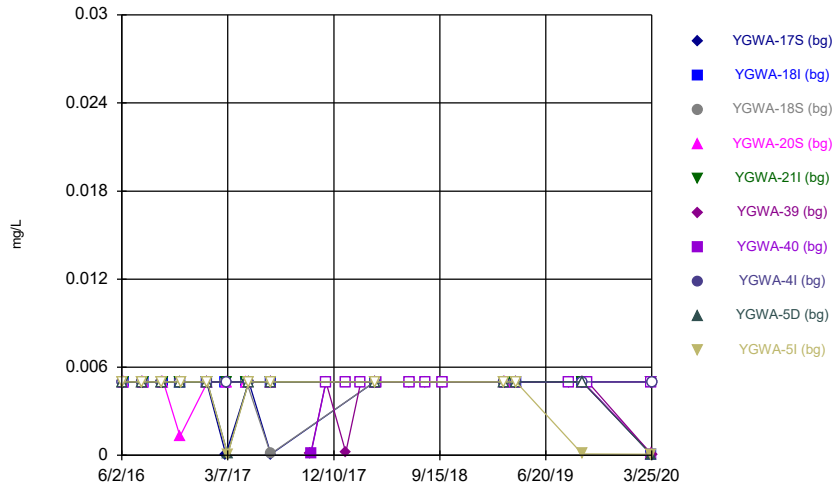
Constituent: Fluoride Analysis Run 5/5/2020 3:10 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



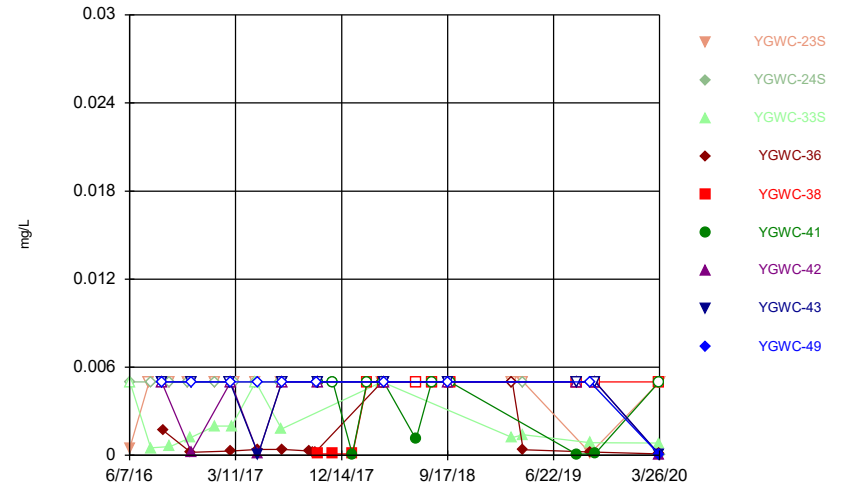
Constituent: Fluoride Analysis Run 5/5/2020 3:10 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



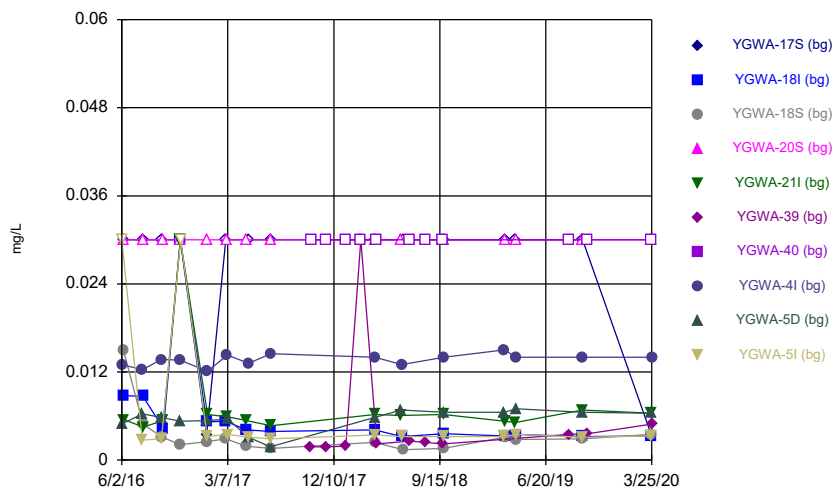
Constituent: Lead Analysis Run 5/5/2020 3:10 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



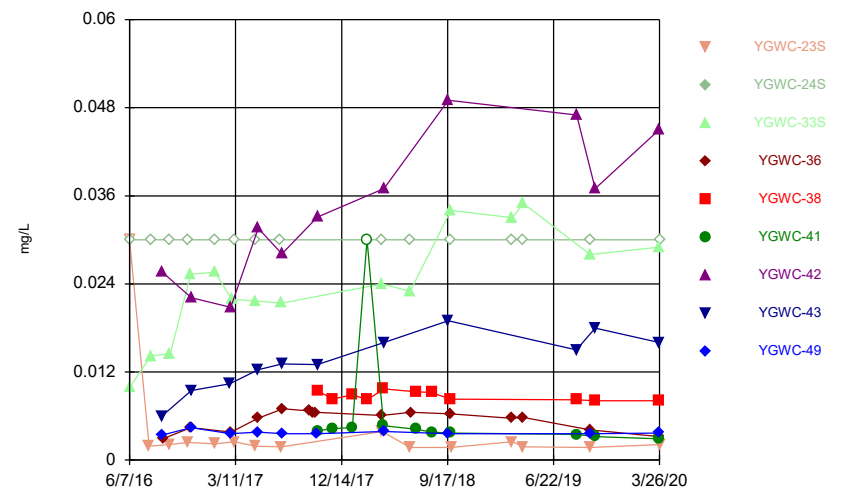
Constituent: Lead Analysis Run 5/5/2020 3:10 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



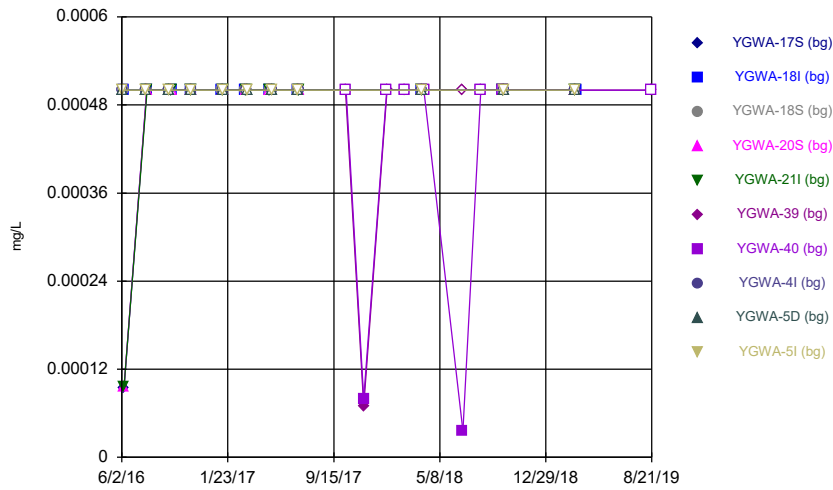
Constituent: Lithium Analysis Run 5/5/2020 3:10 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



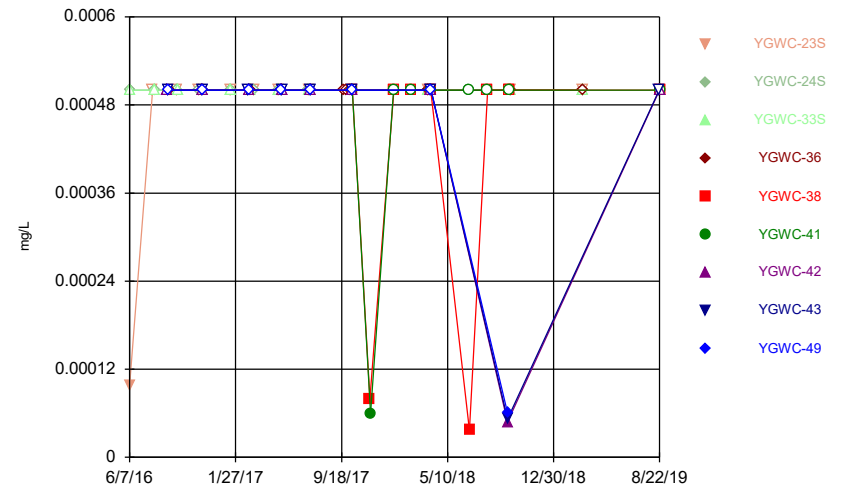
Constituent: Lithium Analysis Run 5/5/2020 3:10 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



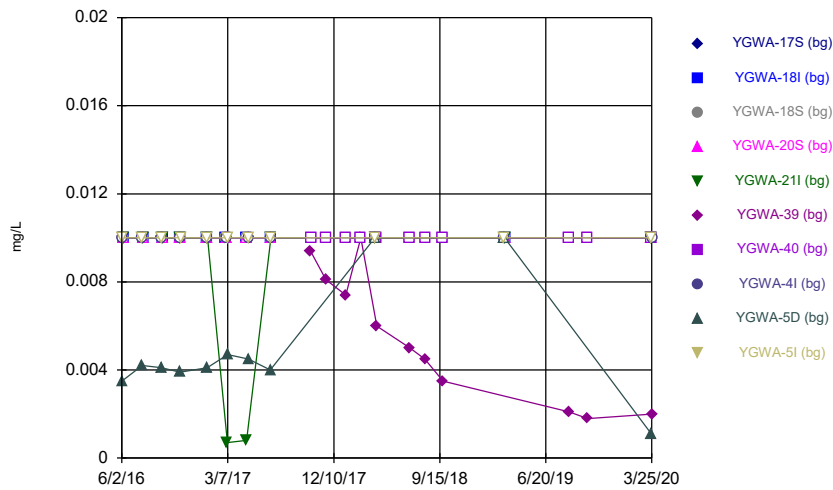
Constituent: Mercury Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



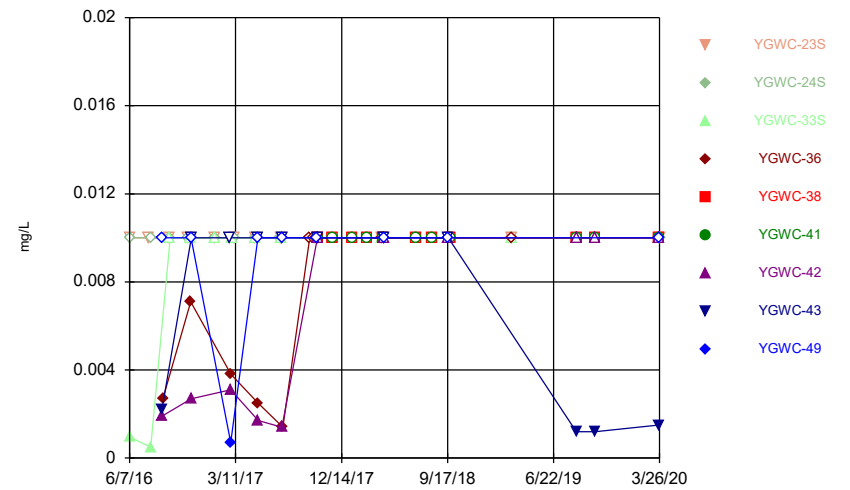
Constituent: Mercury Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



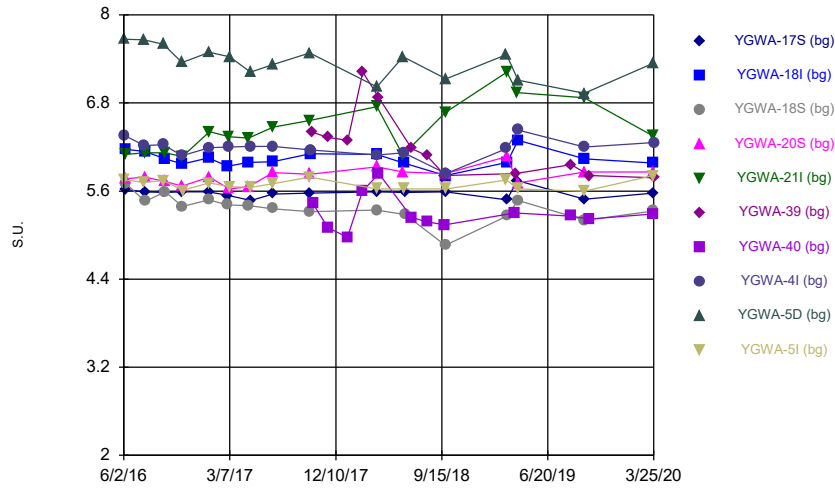
Constituent: Molybdenum Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



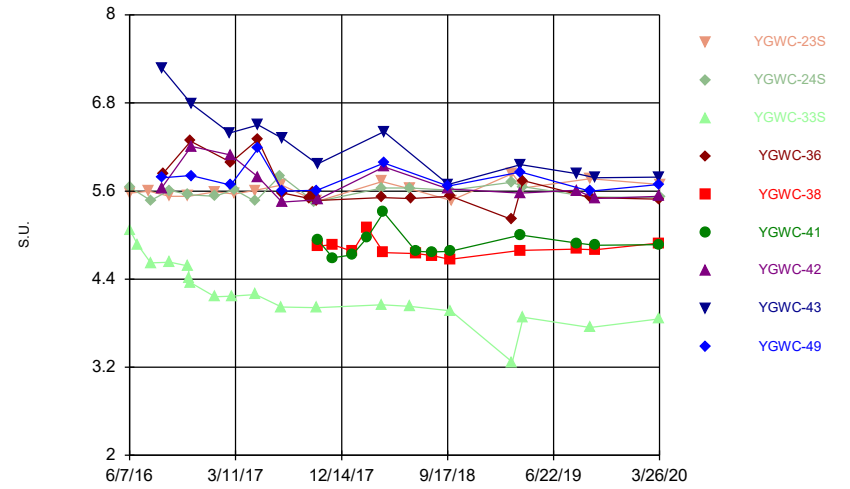
Constituent: Molybdenum Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



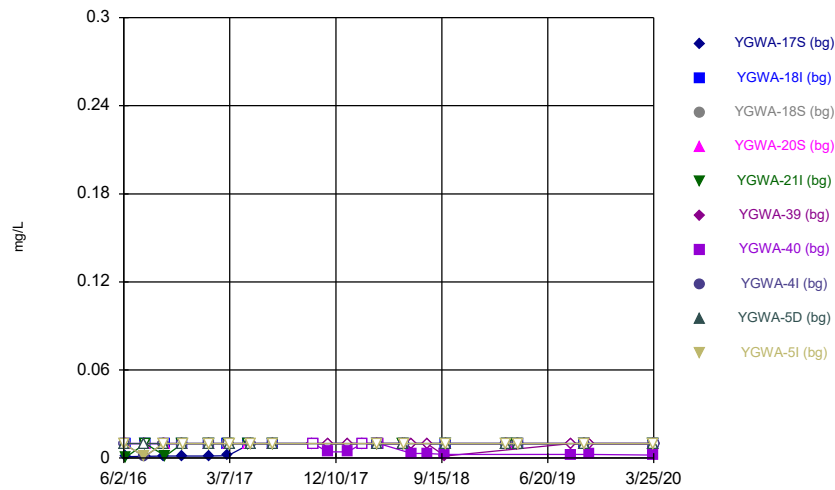
Constituent: pH Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



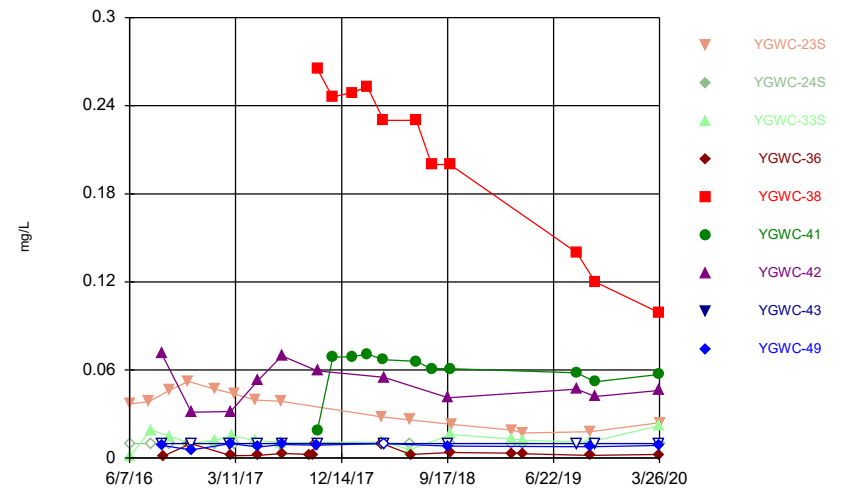
Constituent: pH Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



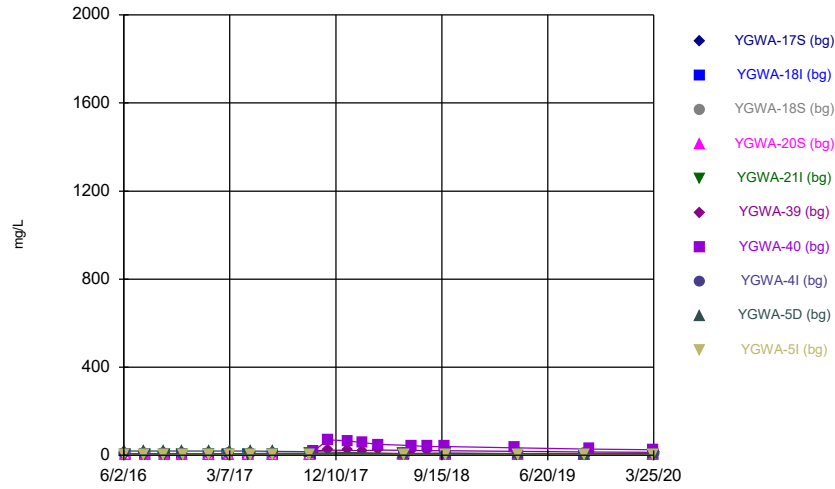
Constituent: Selenium Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



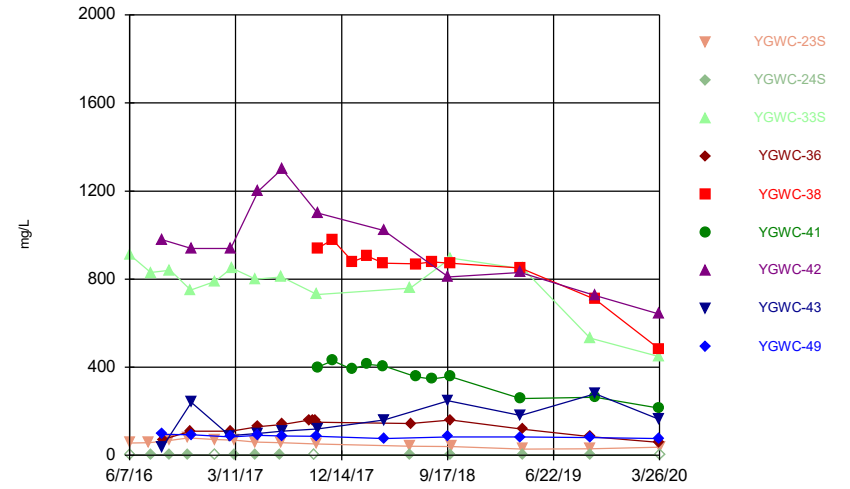
Constituent: Selenium Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



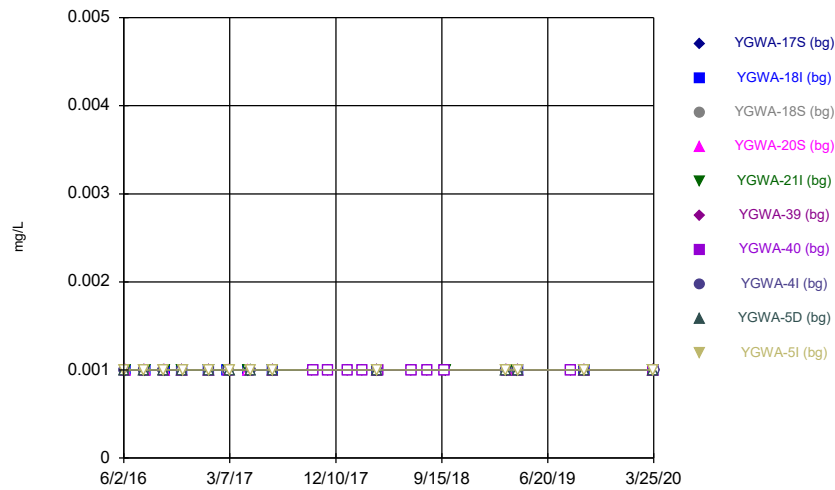
Constituent: Sulfate Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



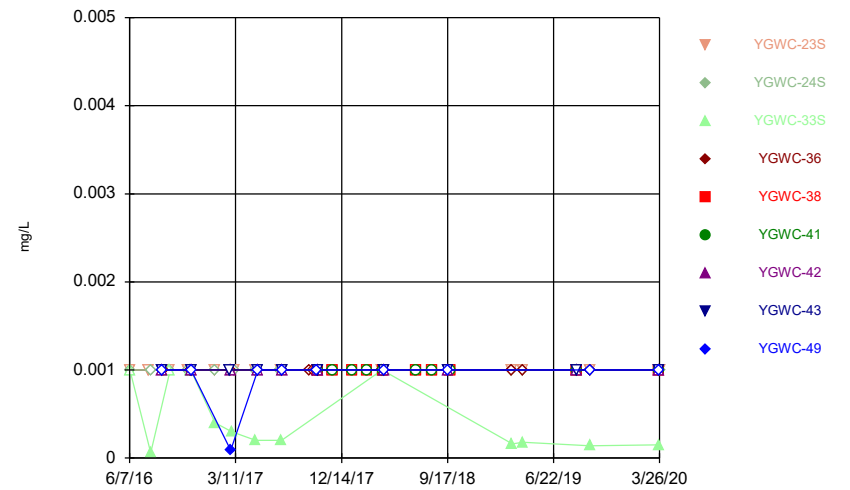
Constituent: Sulfate Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



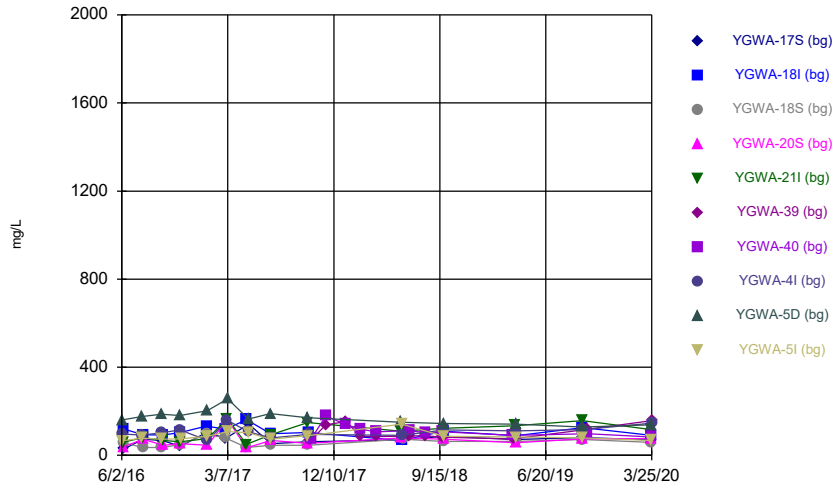
Constituent: Thallium Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



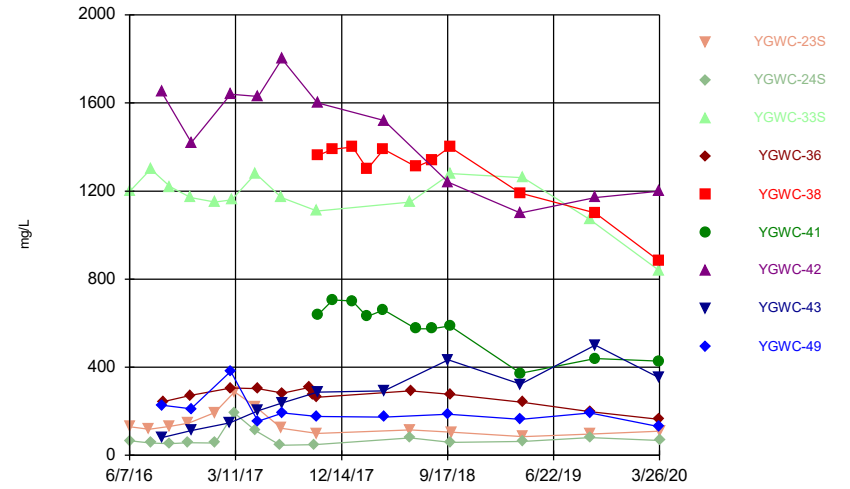
Constituent: Thallium Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 3:11 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.003	<0.003
6/6/2016		<0.003	<0.003						
6/7/2016	<0.003			<0.003	<0.003				
7/26/2016								0.0003 (J)	<0.003
7/27/2016	<0.003	0.0005 (J)	<0.003	<0.003					
7/28/2016					<0.003				
9/14/2016								<0.003	<0.003
9/16/2016	<0.003		<0.003						
9/19/2016		<0.003		<0.003	0.001 (J)				
11/2/2016				<0.003				<0.003	<0.003
11/3/2016	<0.003	<0.003	<0.003		<0.003				
1/11/2017	<0.003	<0.003	<0.003						
1/12/2017									<0.003
1/13/2017				<0.003	<0.003			<0.003	
3/1/2017		<0.003	<0.003						
3/2/2017	<0.003								
3/6/2017				<0.003	0.0005 (J)			<0.003	
3/7/2017									<0.003
4/26/2017		<0.003	<0.003	<0.003	<0.003				
5/1/2017								<0.003	<0.003
5/2/2017	<0.003								
6/27/2017									<0.003
6/28/2017		<0.003	<0.003						
6/29/2017	<0.003			<0.003	<0.003			<0.003	
10/11/2017						0.0006 (J)			
10/12/2017							<0.003		
11/20/2017						<0.003	<0.003		
1/10/2018							<0.003		
1/11/2018						<0.003			
2/19/2018							<0.003		
2/20/2018						<0.003			
3/28/2018	<0.003	<0.003	<0.003						
3/29/2018				<0.003	<0.003			<0.003	<0.003
4/3/2018						<0.003	<0.003		
6/28/2018						<0.003	<0.003		
8/7/2018						<0.003	<0.003		
9/24/2018						<0.003	<0.003		
3/4/2019								<0.003	<0.003
3/5/2019	<0.003		<0.003	<0.003	0.0011 (J)				
3/6/2019		<0.003							
4/2/2019	<0.003				0.0011 (J)				
4/3/2019		<0.003	<0.003	<0.003				<0.003	<0.003
8/21/2019						<0.003	<0.003		
9/24/2019					0.0035				<0.003
9/25/2019	<0.003			<0.003				<0.003	
9/26/2019		0.00056 (J)	<0.003						
3/24/2020	<0.003	<0.003	<0.003	<0.003	0.0017 (J)		<0.003		<0.003
3/25/2020						0.0014 (J)		<0.003	

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.003								
6/7/2016		<0.003							
6/8/2016			<0.003	<0.003					
7/26/2016	<0.003								
7/28/2016		<0.003							
8/1/2016			<0.003	<0.003					
8/30/2016								<0.003	
8/31/2016									<0.003
9/2/2016					<0.003				
9/14/2016	<0.003								
9/20/2016		<0.003	0.0009 (J)						
9/21/2016				<0.003					
11/4/2016	<0.003								
11/8/2016		<0.003	<0.003						
11/14/2016				<0.003	0.0014 (J)				
11/16/2016								<0.003	<0.003
1/12/2017	<0.003								
1/16/2017		<0.003							
1/17/2017			<0.003	<0.003					
2/24/2017									<0.003
2/27/2017								<0.003	
2/28/2017					0.0004 (J)				
3/1/2017				<0.003					
3/7/2017	<0.003								
3/8/2017			<0.003						
3/9/2017		<0.003							
5/2/2017	<0.003	<0.003	<0.003						
5/3/2017				<0.003					
5/9/2017					<0.003				
5/10/2017								<0.003	<0.003
6/27/2017	<0.003								
7/7/2017			<0.003						
7/10/2017		<0.003		<0.003					
7/11/2017								<0.003	<0.003
7/13/2017					<0.003				
9/22/2017					<0.003				
9/29/2017					<0.003				
10/6/2017					<0.003				
10/12/2017						<0.003	<0.003	<0.003	<0.003
11/20/2017						<0.003			
11/21/2017							<0.003		
1/11/2018							<0.003		
1/12/2018						<0.003			
2/19/2018							<0.003		
2/20/2018						<0.003			
3/29/2018	<0.003								
3/30/2018		<0.003	<0.003	<0.003	<0.003				
4/3/2018						<0.003	<0.003		
4/4/2018								<0.003	<0.003
6/27/2018							<0.003		
6/28/2018						<0.003			
8/7/2018						0.0015 (J)	<0.003		

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
9/20/2018								<0.003	<0.003
9/24/2018						<0.003	<0.003		
3/4/2019	<0.003								
3/5/2019			<0.003						
3/6/2019		<0.003		<0.003	0.0011 (J)				
4/3/2019	<0.003								
4/4/2019		<0.003	<0.003	<0.003	0.0041				
8/21/2019									<0.003
8/22/2019						<0.003	<0.003	<0.003	
9/24/2019	<0.003								
9/26/2019			<0.003	<0.003	0.0065				
9/27/2019		0.00029 (J)							
3/24/2020	<0.003								
3/25/2020				<0.003	0.0011 (J)	0.00063 (J)	<0.003	<0.003	0.00031 (J)
3/26/2020		<0.003	<0.003						

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.003
11/15/2016	<0.003
2/27/2017	0.0011 (J)
5/9/2017	<0.003
7/13/2017	<0.003
10/11/2017	<0.003
4/4/2018	<0.003
9/20/2018	<0.003
9/26/2019	<0.003
3/25/2020	0.00053 (J)

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.005	0.00071 (J)
6/6/2016		<0.005	<0.005						
6/7/2016	<0.005			<0.005	<0.005				
7/26/2016								<0.005	0.001 (J)
7/27/2016	<0.005	<0.005	<0.005	<0.005					
7/28/2016					<0.005				
9/14/2016								<0.005	<0.005
9/16/2016	<0.005		<0.005						
9/19/2016		<0.005		<0.005	<0.005				
11/2/2016				<0.005				<0.005	<0.005
11/3/2016	<0.005	<0.005	<0.005		<0.005				
1/11/2017	<0.005	<0.005	<0.005						
1/12/2017									<0.005
1/13/2017				<0.005	<0.005			<0.005	
3/1/2017		<0.005	<0.005						
3/2/2017	<0.005								
3/6/2017				<0.005	0.0017 (J)			<0.005	
3/7/2017									0.0012 (J)
4/26/2017		<0.005	<0.005	<0.005	<0.005				
5/1/2017								<0.005	<0.005
5/2/2017	<0.005								
6/27/2017									0.0019 (J)
6/28/2017		<0.005	<0.005						
6/29/2017	<0.005			<0.005	<0.005			<0.005	
10/11/2017						0.0009 (J)			
10/12/2017							<0.005		
11/20/2017						<0.005	<0.005		
1/10/2018							<0.005		
1/11/2018						<0.005			
2/19/2018							<0.005		
2/20/2018						<0.005			
3/28/2018	<0.005	<0.005	0.00061 (J)						
3/29/2018				<0.005	0.0015 (J)			<0.005	0.0006 (J)
4/3/2018						<0.005	<0.005		
6/5/2018					0.0013 (J)				
6/6/2018				<0.005					0.0013 (J)
6/7/2018		0.00066 (J)						0.00059 (J)	
6/11/2018	<0.005		<0.005						
6/28/2018						<0.005	<0.005		
8/7/2018						<0.005	<0.005		
9/24/2018						<0.005	<0.005		
9/25/2018	<0.005	<0.005	<0.005	<0.005	0.0022 (J)				
9/26/2018								<0.005	0.0014 (J)
3/4/2019								<0.005	<0.005
3/5/2019	<0.005		<0.005	<0.005	0.0013 (J)				
3/6/2019		<0.005							
4/2/2019	<0.005				0.00096 (J)				
4/3/2019		<0.005	<0.005	<0.005				<0.005	<0.005
8/21/2019						0.00058 (J)	<0.005		
9/24/2019					0.0026 (J)				0.00043 (J)
9/25/2019	<0.005			<0.005				<0.005	
9/26/2019		<0.005	<0.005						

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/9/2019						0.00063 (J)	<0.005		
3/24/2020	<0.005	<0.005	<0.005	<0.005	0.0013 (J)		<0.005		0.00065 (J)
3/25/2020						0.0012 (J)		<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.005								
6/7/2016		<0.005							
6/8/2016			<0.005	0.0033					
7/26/2016	<0.005								
7/28/2016		<0.005							
8/1/2016			<0.005	0.007					
8/30/2016								0.0023 (J)	
8/31/2016									<0.005
9/2/2016					<0.005				
9/14/2016	<0.005								
9/20/2016		<0.005	<0.005						
9/21/2016				0.0054					
11/4/2016	<0.005								
11/8/2016		<0.005	<0.005						
11/14/2016				<0.005	<0.005				
11/16/2016								0.0017 (J)	<0.005
1/12/2017	<0.005								
1/16/2017		<0.005							
1/17/2017			<0.005	0.0027 (J)					
2/24/2017									<0.005
2/27/2017								0.002 (J)	
2/28/2017					0.0006 (J)				
3/1/2017				0.0041 (J)					
3/7/2017	<0.005								
3/8/2017			<0.005						
3/9/2017		<0.005							
5/2/2017	<0.005	<0.005	<0.005						
5/3/2017				0.0037 (J)					
5/9/2017					0.0006 (J)				
5/10/2017								0.0022 (J)	<0.005
6/27/2017	<0.005								
7/7/2017			<0.005						
7/10/2017		<0.005		0.0044 (J)					
7/11/2017								0.003 (J)	<0.005
7/13/2017					<0.005				
9/22/2017					<0.005				
9/29/2017					<0.005				
10/6/2017					<0.005				
10/12/2017						0.0023 (J)	0.0011 (J)	0.0031 (J)	<0.005
11/20/2017						0.0008 (J)			
11/21/2017							<0.005		
1/11/2018							<0.005		
1/12/2018						0.001 (J)			
2/19/2018							<0.005		
2/20/2018						0.00096 (J)			
3/29/2018	<0.005								
3/30/2018		<0.005	<0.005	0.0049 (J)	<0.005				
4/3/2018						0.0015 (J)	0.00072 (J)		
4/4/2018								0.0023 (J)	<0.005
6/7/2018	<0.005								
6/12/2018		<0.005	<0.005	0.002 (J)					
6/13/2018					0.00066 (J)				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.00062 (J)		
6/28/2018						0.0017 (J)			
8/7/2018						0.00072 (J)	<0.005		
9/20/2018								0.0018 (J)	0.00099 (J)
9/24/2018						0.0017 (J)	0.001 (J)		
9/26/2018	<0.005		<0.005	0.0048 (J)	<0.005				
9/27/2018		<0.005							
3/4/2019	<0.005								
3/5/2019			<0.005						
3/6/2019		<0.005		0.0022 (J)	<0.005				
4/3/2019	<0.005								
4/4/2019		<0.005	<0.005	0.0024 (J)	<0.005				
8/21/2019									<0.005
8/22/2019						0.00055 (J)	0.00036 (J)	0.00089 (J)	
9/24/2019	<0.005								
9/26/2019			<0.005	0.0025 (J)	<0.005				
9/27/2019		<0.005							
10/9/2019						0.00057 (J)	0.00052 (J)	0.00078 (J)	0.00051 (J)
3/24/2020	<0.005								
3/25/2020				0.003 (J)	<0.005	0.00068 (J)	0.001 (J)	0.0013 (J)	0.0007 (J)
3/26/2020		0.0012 (J)	0.0015 (J)						

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.005
11/15/2016	<0.005
2/27/2017	<0.005
5/9/2017	<0.005
7/13/2017	<0.005
10/11/2017	0.0006 (J)
4/4/2018	<0.005
9/20/2018	0.001 (J)
9/26/2019	<0.005
3/25/2020	0.00086 (J)

Time Series

Constituent: Barium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								0.013	0.0084
6/6/2016		0.028	0.019						
6/7/2016	0.012			0.014	0.0058				
7/26/2016								0.0158	0.01
7/27/2016	0.0126	0.0294	0.0167	0.0141					
7/28/2016					0.0068 (J)				
9/14/2016								0.0143	0.0085 (J)
9/16/2016	0.0127		0.0168						
9/19/2016		0.0247		0.0155	0.0071 (J)				
11/2/2016				0.0157				0.0148	0.0091 (J)
11/3/2016	0.0128	0.0248	0.0159		0.0092 (J)				
1/11/2017	0.0142	0.0266	0.0162						
1/12/2017									0.0089 (J)
1/13/2017				0.0158	0.0105			0.0146	
3/1/2017		0.0275	0.0195						
3/2/2017	0.0155								
3/6/2017				0.0163	0.0105			0.0141	
3/7/2017									0.009 (J)
4/26/2017		0.024	0.0182	0.0177	0.011				
5/1/2017								0.0149	0.0083 (J)
5/2/2017	0.0138								
6/27/2017									0.0074 (J)
6/28/2017		0.0237	0.018						
6/29/2017	0.0128			0.017	0.0109			0.0154	
10/11/2017						0.0092 (J)			
10/12/2017							0.0328		
11/20/2017						0.0081 (J)	0.0671		
1/10/2018							0.0656		
1/11/2018						0.0077 (J)			
2/19/2018							0.0598		
2/20/2018						<0.01			
3/28/2018	0.014	0.024	0.021						
3/29/2018				0.014	<0.01			0.014	<0.01
4/3/2018						<0.01	0.045		
6/5/2018					0.011				
6/6/2018				0.015					0.008 (J)
6/7/2018		0.023						0.014	
6/11/2018	0.013		0.019						
6/28/2018						0.0078 (J)	0.047		
8/7/2018						0.0078 (J)	0.048		
9/24/2018						0.0071 (J)	0.042		
9/25/2018	0.014	0.023	0.019	0.015	0.011				
9/26/2018								0.02	0.0075 (J)
3/4/2019								0.016	0.0077 (J)
3/5/2019	0.015		0.02	0.016	0.011				
3/6/2019		0.024							
4/2/2019	0.016				0.011				
4/3/2019		0.025	0.017	0.018				0.017	0.0087 (J)
8/21/2019						0.015	0.035		
9/24/2019					0.011				0.0075 (J)
9/25/2019	0.015			0.014				0.015	
9/26/2019		0.021	0.017						

Time Series

Constituent: Barium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/9/2019						0.013	0.036		
3/24/2020	0.015	0.021	0.017	0.015	0.011		0.033		0.0076 (J)
3/25/2020						0.014		0.016	

Time Series

Constituent: Barium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	0.019								
6/7/2016		0.045							
6/8/2016			0.02	0.029					
7/26/2016	0.0179								
7/28/2016		0.0511							
8/1/2016			0.02	0.02					
8/30/2016								0.0455	
8/31/2016									0.0065 (J)
9/2/2016					0.0409				
9/14/2016	0.0181								
9/20/2016		0.0561	0.0203						
9/21/2016				0.0183					
11/4/2016	0.0165								
11/8/2016		0.054	0.0191						
11/14/2016				0.0149	0.0182				
11/16/2016								0.0541	0.0092 (J)
1/12/2017	0.0199								
1/16/2017		0.0528							
1/17/2017			0.0192	<0.01					
2/24/2017									0.0144
2/27/2017								0.0573	
2/28/2017					0.023				
3/1/2017				0.0142					
3/7/2017	0.0196								
3/8/2017			0.0189						
3/9/2017		0.0469							
5/2/2017	0.0202	0.0427	0.019						
5/3/2017				0.0151					
5/9/2017					0.0349				
5/10/2017								0.0517	0.0173
6/27/2017	0.0184								
7/7/2017			0.019						
7/10/2017		0.0395		0.0137					
7/11/2017								0.0451	0.0183
7/13/2017					0.0484				
9/22/2017					0.0491				
9/29/2017					0.0452				
10/6/2017					0.0508				
10/12/2017						0.0269	0.0394	0.0429	0.0205
11/20/2017						0.0255			
11/21/2017							0.032		
1/11/2018							0.03		
1/12/2018						0.0236			
2/19/2018							0.0308		
2/20/2018						0.0255			
3/29/2018	0.021								
3/30/2018		0.03	0.02	0.012	0.043				
4/3/2018						0.023	0.03		
4/4/2018								0.041	0.024
6/7/2018	0.019								
6/12/2018		0.024	0.018	0.012					
6/13/2018					0.046				

Time Series

Constituent: Barium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.028		
6/28/2018						0.024			
8/7/2018						0.023	0.027		
9/20/2018								0.038	0.035
9/24/2018						0.021	0.026		
9/26/2018	0.019		0.019	0.012	0.048				
9/27/2018		0.022							
3/4/2019	0.019								
3/5/2019			0.019						
3/6/2019		0.019		0.012	0.041				
4/3/2019	0.023								
4/4/2019		0.019	0.02	0.014	0.042				
8/21/2019									0.03
8/22/2019						0.019	0.021	0.031	
9/24/2019	0.019								
9/26/2019			0.017	0.01	0.025				
9/27/2019		0.018							
10/9/2019						0.019	0.021	0.027	0.04
3/24/2020	0.021								
3/25/2020				0.012	0.025	0.018	0.021	0.03	0.033
3/26/2020		0.027	0.019						

Time Series

Constituent: Barium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	0.077
11/15/2016	0.0772
2/27/2017	0.0888
5/9/2017	0.0792
7/13/2017	0.0839
10/11/2017	0.078
4/4/2018	0.074
9/20/2018	0.074
9/26/2019	0.065
3/25/2020	0.071

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.003	<0.003
6/6/2016		<0.003	<0.003						
6/7/2016	<0.003			<0.003	<0.003				
7/26/2016								<0.003	<0.003
7/27/2016	<0.003	<0.003	<0.003	<0.003					
7/28/2016					<0.003				
9/14/2016								<0.003	<0.003
9/16/2016	<0.003		<0.003						
9/19/2016		<0.003		<0.003	<0.003				
11/2/2016				<0.003				<0.003	<0.003
11/3/2016	<0.003	<0.003	<0.003		<0.003				
1/11/2017	<0.003	<0.003	<0.003						
1/12/2017									<0.003
1/13/2017				<0.003	<0.003			<0.003	
3/1/2017		<0.003	<0.003						
3/2/2017	8E-05 (J)								
3/6/2017				<0.003	<0.003			<0.003	
3/7/2017									<0.003
4/26/2017		<0.003	<0.003	<0.003	<0.003				
5/1/2017								<0.003	<0.003
5/2/2017	<0.003								
6/27/2017									<0.003
6/28/2017		<0.003	<0.003						
6/29/2017	<0.003			<0.003	<0.003			<0.003	
10/11/2017						<0.003			
10/12/2017							0.0002 (J)		
11/20/2017						<0.003	0.0003 (J)		
1/10/2018							0.0003 (J)		
1/11/2018						<0.003			
2/19/2018							<0.003		
2/20/2018						<0.003			
3/28/2018	<0.003	<0.003	<0.003						
3/29/2018				<0.003	<0.003			<0.003	<0.003
4/3/2018						<0.003	<0.003		
6/5/2018					<0.003				
6/6/2018				8E-05 (J)					<0.003
6/7/2018		<0.003						<0.003	
6/11/2018	9E-05 (J)		5.7E-05 (J)						
6/28/2018						<0.003	0.00029 (J)		
8/7/2018						<0.003	0.00024 (J)		
9/24/2018						<0.003	0.00019 (J)		
9/25/2018	8.9E-05 (J)	<0.003	8.2E-05 (J)	6.1E-05 (J)	<0.003				
9/26/2018								<0.003	<0.003
3/4/2019								<0.003	<0.003
3/5/2019	9.1E-05 (J)		7.9E-05 (J)	0.00011 (J)	<0.003				
3/6/2019		<0.003							
4/2/2019	9E-05 (J)				<0.003				
4/3/2019		<0.003	7.5E-05 (J)	6.4E-05 (J)				<0.003	<0.003
8/21/2019						<0.003	0.0002 (J)		
9/24/2019					<0.003				<0.003
9/25/2019	8.1E-05 (J)			<0.003				<0.003	
9/26/2019		<0.003	8.4E-05 (J)						

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/9/2019						<0.003	0.0002 (J)		
3/24/2020	8E-05 (J)	<0.003	8.9E-05 (J)	7.6E-05 (J)	<0.003		0.00022 (J)		<0.003
3/25/2020						<0.003		<0.003	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.003								
6/7/2016		<0.003							
6/8/2016			<0.003	0.012					
7/26/2016	<0.003								
7/28/2016		<0.003							
8/1/2016			0.0001 (J)	0.0146					
8/30/2016								9E-05 (J)	
8/31/2016									<0.003
9/2/2016					0.0003 (J)				
9/14/2016	<0.003								
9/20/2016		0.0001 (J)	0.0001 (J)						
9/21/2016				0.0149					
11/4/2016	<0.003								
11/8/2016		<0.003	<0.003						
11/14/2016				0.0152	9E-05 (J)				
11/16/2016								<0.003	<0.003
1/12/2017	<0.003								
1/16/2017		0.0001 (J)							
1/17/2017			0.0001 (J)	0.0142					
2/24/2017									<0.003
2/27/2017								<0.003	
2/28/2017					0.0001 (J)				
3/1/2017				0.015					
3/7/2017	<0.003								
3/8/2017			0.0001 (J)						
3/9/2017		0.0001 (J)							
5/2/2017	<0.003	9E-05 (J)	0.0001 (J)						
5/3/2017				0.0154					
5/9/2017					0.0002 (J)				
5/10/2017								9E-05 (J)	<0.003
6/27/2017	<0.003								
7/7/2017			0.0001 (J)						
7/10/2017		<0.003		0.0143					
7/11/2017								0.0001 (J)	<0.003
7/13/2017					0.0003 (J)				
9/22/2017					0.0003 (J)				
9/29/2017					0.0003 (J)				
10/6/2017					0.0003 (J)				
10/12/2017						0.0057	0.0036	<0.003	0.0001 (J)
11/20/2017						0.0053			
11/21/2017							0.0036		
1/11/2018							0.0037		
1/12/2018						0.0053			
2/19/2018							0.0039		
2/20/2018						0.0053			
3/29/2018	<0.003								
3/30/2018		<0.003	<0.003	0.018	<0.003				
4/3/2018						0.0056	0.0037		
4/4/2018								<0.003	<0.003
6/7/2018	<0.003								
6/12/2018		8.1E-05 (J)	0.00012 (J)	0.016					
6/13/2018					0.00035 (J)				

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.0038		
6/28/2018						0.0059			
8/7/2018						0.0058	0.0037		
9/20/2018								<0.003	0.00029 (J)
9/24/2018						0.0051	0.0032		
9/26/2018	<0.003		0.00014 (J)	0.024	0.00032 (J)				
9/27/2018		9E-05 (J)							
3/4/2019	<0.003								
3/5/2019			0.00016 (J)						
3/6/2019		6.6E-05 (J)		0.023	0.00029 (J)				
4/3/2019	<0.003								
4/4/2019		7.2E-05 (J)	0.00015 (J)	0.025	0.00033 (J)				
8/21/2019									0.0003 (J)
8/22/2019						0.0049	0.0026 (J)	<0.003	
9/24/2019	<0.003								
9/26/2019			0.00014 (J)	0.019	0.00029 (J)				
9/27/2019		7.7E-05 (J)							
10/9/2019						0.0046	0.0026 (J)	<0.003	0.00034 (J)
3/24/2020	<0.003								
3/25/2020				0.017	0.00022 (J)	0.0038	0.0026 (J)	<0.003	0.00034 (J)
3/26/2020		9E-05 (J)	0.00016 (J)						

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	0.0001 (J)
11/15/2016	0.0001 (J)
2/27/2017	0.0001 (J)
5/9/2017	0.0001 (J)
7/13/2017	0.0001 (J)
10/11/2017	0.0001 (J)
4/4/2018	<0.003
9/20/2018	0.00011 (J)
9/26/2019	0.00013 (J)
3/25/2020	0.00013 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.1	<0.1
6/6/2016		<0.1	<0.1						
6/7/2016	<0.1			<0.1	<0.1				
7/26/2016								0.0047 (J)	0.0052 (J)
7/27/2016	0.008 (J)	<0.1	0.0059 (J)	<0.1					
7/28/2016					<0.1				
9/14/2016								<0.1	0.0071 (J)
9/16/2016	0.0086 (J)		0.0079 (J)						
9/19/2016		<0.1		<0.1	<0.1				
11/2/2016				<0.1				<0.1	<0.1
11/3/2016	0.0077 (J)	<0.1	0.0082 (J)		<0.1				
1/11/2017	0.0092 (J)	<0.1	0.0096 (J)						
1/12/2017									0.0076 (J)
1/13/2017				<0.1	<0.1			<0.1	
3/1/2017		<0.1	<0.1						
3/2/2017	0.0095 (J)								
3/6/2017				<0.1	<0.1			<0.1	
3/7/2017									0.0089 (J)
4/26/2017		<0.1	0.0091 (J)	<0.1	<0.1				
5/1/2017								<0.1	0.0061 (J)
5/2/2017	<0.1								
6/27/2017									0.0079 (J)
6/28/2017		<0.1	0.0079 (J)						
6/29/2017	0.0074 (J)			<0.1	<0.1			<0.1	
10/3/2017					<0.1				0.0094 (J)
10/4/2017	0.0077 (J)		0.009 (J)	<0.1					
10/5/2017		<0.1						<0.1	
10/11/2017						0.0135 (J)			
10/12/2017							0.0401		
11/20/2017						0.0251 (J)	0.156		
1/10/2018							0.15		
1/11/2018						0.0255 (J)			
2/19/2018							0.146		
2/20/2018						<0.1			
4/3/2018						0.033 (J)	0.12		
6/5/2018					0.0092 (J)				
6/6/2018				0.0049 (J)					0.0098 (J)
6/7/2018		<0.1						0.0045 (J)	
6/11/2018	0.01 (J)		0.0093 (J)						
6/28/2018						0.053	0.16		
8/7/2018						0.024 (J)	0.12		
9/24/2018						0.028 (J)	0.099		
9/25/2018	0.0096 (J)	0.0046 (J)	0.007 (J)	<0.1	0.0054 (J)				
9/26/2018								0.005 (J)	0.01 (J)
3/26/2019							0.096		
3/27/2019						0.017 (J)			
4/2/2019	0.0066 (J)				0.011 (J)				
4/3/2019		<0.1	0.0053 (J)	<0.1				0.0055 (J)	0.0076 (J)
9/24/2019					0.018 (J)				0.01 (J)
9/25/2019	0.0081 (J)			<0.1				<0.1	
9/26/2019		0.0062 (J)	0.0072 (J)						
10/9/2019						0.017 (J)	0.079		

Time Series

Constituent: Boron (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/24/2020	0.0092 (J)	0.0054 (J)	0.01 (J)	<0.1	0.016 (J)		0.088 (J)		0.011 (J)
3/25/2020						0.043 (J)		0.011 (J)	

Time Series

Constituent: Boron (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.1								
6/7/2016		0.99							
6/8/2016			<0.1	12					
7/26/2016	<0.1								
7/28/2016		1.09							
8/1/2016			<0.1	9.89					
8/30/2016								24.7	
8/31/2016									0.169
9/2/2016					0.133				
9/14/2016	0.01 (J)								
9/20/2016		1.35	<0.1						
9/21/2016				11.1					
11/4/2016	<0.1								
11/8/2016		1.5	<0.1						
11/14/2016				11	0.287				
11/16/2016								16.4	0.406
1/12/2017	<0.1								
1/16/2017		1.67							
1/17/2017			<0.1	11.8					
2/24/2017									0.725
2/27/2017								17.9	
2/28/2017					0.215				
3/1/2017				8.61					
3/7/2017	<0.1								
3/8/2017			<0.1						
3/9/2017		1.44							
5/2/2017	<0.1	1.2	0.0099 (J)						
5/3/2017				13.4					
5/9/2017					0.233				
5/10/2017								20.4	0.955
6/27/2017	<0.1								
7/7/2017			0.0076 (J)						
7/10/2017		1.12		15.2					
7/11/2017								25.2	0.994
7/13/2017					0.262				
9/22/2017					0.238				
9/29/2017					0.235				
10/3/2017	<0.1								
10/5/2017			<0.1						
10/6/2017					0.256				
10/11/2017		1.09		11.4	0.245				
10/12/2017						19.3	12	20	1.15
11/20/2017						21.8			
11/21/2017							12.1		
1/11/2018							12.8		
1/12/2018						18.7			
2/19/2018							15.2		
2/20/2018						18.6			
4/3/2018						20.9	14.5		
4/4/2018								22.7	1.2
6/7/2018	<0.1								
6/12/2018		0.9	0.018 (J)	9.2					

Time Series

Constituent: Boron (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/13/2018					0.25				
6/27/2018							14.1		
6/28/2018						22.7			
8/7/2018						19.1	11.9		
9/20/2018								20.3	2.1
9/24/2018						18.4	12.2		
9/26/2018	0.0057 (J)		0.0055 (J)	13.4	0.24				
9/27/2018		0.71							
3/27/2019						16.7		20.3	
3/28/2019							7.1		1.8
4/3/2019	0.0044 (J)								
4/4/2019		0.6	<0.1	15.4	0.22				
9/24/2019	0.0049 (J)								
9/26/2019			0.0068 (J)	9.6	0.13				
9/27/2019		0.58							
10/9/2019						13.5	8.6	16.6	2.7
3/24/2020	0.0068 (J)								
3/25/2020				5.3	0.11	9.3	7.9	15.5	2.4
3/26/2020		0.94	0.033 (J)						

Time Series

Constituent: Boron (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	0.0113 (J)
11/15/2016	0.0074 (J)
2/27/2017	<0.1
5/9/2017	<0.1
7/13/2017	0.0093 (J)
10/11/2017	<0.1
4/4/2018	0.0041 (J)
9/20/2018	0.0042 (J)
3/28/2019	<0.1
9/26/2019	<0.1
3/25/2020	0.012 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.0025	<0.0025
6/6/2016		<0.0025	<0.0025						
6/7/2016	<0.0025			<0.0025	<0.0025				
7/26/2016								<0.0025	<0.0025
7/27/2016	<0.0025	<0.0025	<0.0025	<0.0025					
7/28/2016					<0.0025				
9/14/2016								<0.0025	<0.0025
9/16/2016	<0.0025		<0.0025						
9/19/2016		<0.0025		<0.0025	<0.0025				
11/2/2016				<0.0025				<0.0025	<0.0025
11/3/2016	<0.0025	<0.0025	<0.0025		<0.0025				
1/11/2017	0.0001 (J)	<0.0025	0.0001 (J)						
1/12/2017									<0.0025
1/13/2017				<0.0025	<0.0025			<0.0025	
3/1/2017		<0.0025	<0.0025						
3/2/2017	<0.0025								
3/6/2017				<0.0025	<0.0025			<0.0025	
3/7/2017									<0.0025
4/26/2017		<0.0025	<0.0025	<0.0025	<0.0025				
5/1/2017								<0.0025	<0.0025
5/2/2017	<0.0025								
6/27/2017									<0.0025
6/28/2017		<0.0025	<0.0025						
6/29/2017	<0.0025			<0.0025	<0.0025			<0.0025	
10/11/2017						<0.0025			
10/12/2017							<0.0025		
11/20/2017						<0.0025	<0.0025		
1/10/2018							<0.0025		
1/11/2018						<0.0025			
2/19/2018							<0.0025		
2/20/2018						<0.0025			
3/28/2018	<0.0025	<0.0025	<0.0025						
3/29/2018				<0.0025	<0.0025			<0.0025	<0.0025
4/3/2018						<0.0025	<0.0025		
6/5/2018					<0.0025				
6/6/2018				<0.0025					<0.0025
6/7/2018		<0.0025						<0.0025	
6/11/2018	<0.0025		<0.0025						
6/28/2018						<0.0025	<0.0025		
8/7/2018						<0.0025	<0.0025		
9/24/2018						<0.0025	<0.0025		
9/25/2018	<0.0025	<0.0025	<0.0025	<0.0025	9.6E-05 (J)				
9/26/2018								<0.0025	<0.0025
3/4/2019								<0.0025	<0.0025
3/5/2019	<0.0025		<0.0025	<0.0025	<0.0025				
3/6/2019		<0.0025							
4/2/2019	<0.0025				<0.0025				
4/3/2019		<0.0025	<0.0025	<0.0025				<0.0025	<0.0025
8/21/2019						<0.0025	<0.0025		
9/24/2019					<0.0025				<0.0025
9/25/2019	<0.0025			<0.0025				<0.0025	
9/26/2019		<0.0025	<0.0025						

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/9/2019						<0.0025	<0.0025		
3/24/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025		<0.0025
3/25/2020						<0.0025		<0.0025	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.0025								
6/7/2016		<0.0025							
6/8/2016			<0.0025	0.00098 (J)					
7/26/2016	<0.0025								
7/28/2016		<0.0025							
8/1/2016			<0.0025	0.0014					
8/30/2016								<0.0025	
8/31/2016									<0.0025
9/2/2016					<0.0025				
9/14/2016	<0.0025								
9/20/2016		<0.0025	<0.0025						
9/21/2016				0.0017					
11/4/2016	<0.0025								
11/8/2016		7E-05 (J)	<0.0025						
11/14/2016				0.0027	9E-05 (J)				
11/16/2016								<0.0025	<0.0025
1/12/2017	9E-05 (J)								
1/16/2017		<0.0025							
1/17/2017			<0.0025	0.0033					
2/24/2017									<0.0025
2/27/2017								<0.0025	
2/28/2017					0.0001 (J)				
3/1/2017				0.0031					
3/7/2017	<0.0025								
3/8/2017			<0.0025						
3/9/2017		<0.0025							
5/2/2017	<0.0025	<0.0025	<0.0025						
5/3/2017				0.0031					
5/9/2017					0.0002 (J)				
5/10/2017								0.0002 (J)	<0.0025
6/27/2017	<0.0025								
7/7/2017			<0.0025						
7/10/2017		<0.0025		0.0029					
7/11/2017								0.0005 (J)	<0.0025
7/13/2017					0.0002 (J)				
9/22/2017					0.0002 (J)				
9/29/2017					0.0002 (J)				
10/6/2017					0.0002 (J)				
10/12/2017						0.003	0.0002 (J)	0.0006 (J)	<0.0025
11/20/2017						0.0027			
11/21/2017							0.0003 (J)		
1/11/2018							0.0002 (J)		
1/12/2018						0.0029			
2/19/2018							<0.0025		
2/20/2018						0.0029			
3/29/2018	<0.0025								
3/30/2018		<0.0025	<0.0025	0.0028	<0.0025				
4/3/2018						0.0027	<0.0025		
4/4/2018								<0.0025	<0.0025
6/7/2018	<0.0025								
6/12/2018		<0.0025	<0.0025	0.0029					
6/13/2018					0.00019 (J)				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.00025 (J)		
6/28/2018						0.0029			
8/7/2018						0.0027	0.00024 (J)		
9/20/2018								0.0002 (J)	<0.0025
9/24/2018						0.0027	0.00021 (J)		
9/26/2018	<0.0025		<0.0025	0.0028	0.00018 (J)				
9/27/2018		<0.0025							
3/4/2019	<0.0025								
3/5/2019			<0.0025						
3/6/2019		<0.0025		0.003	0.00015 (J)				
4/3/2019	<0.0025								
4/4/2019		<0.0025	<0.0025	0.0035	0.00019 (J)				
8/21/2019									<0.0025
8/22/2019						0.0023 (J)	0.00015 (J)	0.00017 (J)	
9/24/2019	<0.0025								
9/26/2019			<0.0025	0.0023 (J)	0.00017 (J)				
9/27/2019		<0.0025							
10/9/2019						0.0021 (J)	0.00017 (J)	0.00025 (J)	<0.0025
3/24/2020	<0.0025								
3/25/2020				0.002 (J)	0.00019 (J)	0.0018 (J)	0.00018 (J)	0.00021 (J)	<0.0025
3/26/2020		<0.0025	<0.0025						

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.0025
11/15/2016	<0.0025
2/27/2017	7E-05 (J)
5/9/2017	<0.0025
7/13/2017	<0.0025
10/11/2017	<0.0025
4/4/2018	<0.0025
9/20/2018	<0.0025
9/26/2019	<0.0025
3/25/2020	<0.0025

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								8.8	33
6/6/2016		6.2	1.4						
6/7/2016	2.2			2.3	3.7				
7/26/2016								7.69	32.3
7/27/2016	2	4.73	1.19	2.08					
7/28/2016					3.15				
9/14/2016								8.49	31
9/16/2016	1.97		1.5						
9/19/2016		4.76		1.97	3.17				
11/2/2016				2.13				7.83	30.9
11/3/2016	1.99	5.25	1.31		3.4				
1/11/2017	2.28	4.74	1.25						
1/12/2017									35.7
1/13/2017				2.45	4.98			8.08	
3/1/2017		5.37	1.26						
3/2/2017	2.15								
3/6/2017				2.48	6.28			8.64	
3/7/2017									32.7
4/26/2017		4.28	1.05	2.3	6.65				
5/1/2017								13.4	37
5/2/2017	1.95								
6/27/2017									36.5
6/28/2017		4.95	1.06						
6/29/2017	2.02			2.54	6.04			8.81	
10/3/2017					8.28				30.9
10/4/2017	2.03		1.1	2.25					
10/5/2017		5.28						9.29	
10/11/2017						2.74			
10/12/2017							2.9		
11/20/2017						1.81	10.4		
1/10/2018							10.2		
1/11/2018						1.54			
2/19/2018							<25		
2/20/2018						1.71			
4/3/2018						1.4	6.3		
6/5/2018					9.1				
6/6/2018				2.3					26.2
6/7/2018		4.8						8.2	
6/11/2018	2.1		1.4						
6/28/2018						1.4	6.7		
8/7/2018						1.2	6.3		
9/24/2018						1.1	5.7		
9/25/2018	2.1	4.6	1	2.3	10.4 (J)				
9/26/2018								9.5 (J)	25.8
3/26/2019							5.6		
3/27/2019						1.5			
4/2/2019	2.5				8.8				
4/3/2019		5.3	1.2	2.9				8.4	24.7 (J)
9/24/2019					7.7				25.8
9/25/2019	2.6			2.4				9.5	
9/26/2019		4.9	1.1						
10/9/2019						2.4	4.9		

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/24/2020	2.7	5.3	1	2.6	6		4.8		26.1
3/25/2020						2.7		10.5	

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	2.4								
6/7/2016		9.6							
6/8/2016			1.9	130					
7/26/2016	2.12								
7/28/2016		7.87							
8/1/2016			1.83	136					
8/30/2016								133	
8/31/2016									3.4
9/2/2016					11.2				
9/14/2016	2.18								
9/20/2016		9.28	1.78						
9/21/2016				131					
11/4/2016	2.17 (J)								
11/8/2016		8.6	1.77						
11/14/2016				116	7.79				
11/16/2016								125	3.79
1/12/2017	2.37								
1/16/2017		8.85							
1/17/2017			1.7	126					
2/24/2017									6.42
2/27/2017								139	
2/28/2017					8.37				
3/1/2017				125					
3/7/2017	2.34								
3/8/2017			1.77						
3/9/2017		8.4							
5/2/2017	2.17	12.9	1.57						
5/3/2017				129					
5/9/2017					13.9				
5/10/2017								130	7.9
6/27/2017	2.13								
7/7/2017			1.8						
7/10/2017		8.09		139					
7/11/2017								172	6.71
7/13/2017					16.6				
9/22/2017					18.4				
9/29/2017					16.1				
10/3/2017	2.15								
10/5/2017			1.7						
10/6/2017					16.6				
10/11/2017		6.36		125	18.1				
10/12/2017						190	44.5	144	7.05
11/20/2017						184			
11/21/2017							44.4		
1/11/2018							43.9		
1/12/2018						178			
2/19/2018							45.3		
2/20/2018						184			
4/3/2018						174	42.7		
4/4/2018								137	8.6
6/7/2018	2.3								
6/12/2018		4.7	1.8	129					

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/13/2018					18.7 (J)				
6/27/2018							42.2		
6/28/2018						190			
8/7/2018						176	40.7		
9/20/2018								108	15.9 (J)
9/24/2018						172	38.5		
9/26/2018	2.3		1.7	144	19.8 (J)				
9/27/2018		4.1							
3/27/2019						155		109	
3/28/2019							26		8.9
4/3/2019	2.8								
4/4/2019		3.7	1.9	163	16.9 (J)				
9/24/2019	2.5								
9/26/2019			1.7	117	11.7				
9/27/2019		3.7							
10/9/2019						133	27.6	92	18.2
3/24/2020	2.5								
3/25/2020				97.8	10.6	124	29.6	107	12.1
3/26/2020		5.6	1.7						

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-49

9/1/2016	13.9
11/15/2016	13.5
2/27/2017	12.5
5/9/2017	14.4
7/13/2017	14.1
10/11/2017	12.4
4/4/2018	<25
9/20/2018	12 (J)
3/28/2019	11.3 (J)
9/26/2019	12.1
3/25/2020	13.2

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								3.7	7.2
6/6/2016		6.8	6.4						
6/7/2016	4.5			1.9	2.8				
7/26/2016								3.6	6.6
7/27/2016	4.5	6.7	6.2	1.9					
7/28/2016					2.6				
9/14/2016								3.4	6.6
9/16/2016	4.5		6.1						
9/19/2016		7		1.9	2.4				
11/2/2016				2.6				4.5	7.6
11/3/2016	5.4	7.5	7.4		2.9				
1/11/2017	4.7	6.5	6.1						
1/12/2017									6.8
1/13/2017				2.3	2.5			4.2	
3/1/2017		6.9	6						
3/2/2017	4.8								
3/6/2017				1.9	2.1			3.6	
3/7/2017									6.8
4/26/2017		7	6.5	2	2.1				
5/1/2017								4.3	7.2
5/2/2017	4.6								
6/27/2017									7
6/28/2017		7	6.4						
6/29/2017	4.5			2.6	2.8			4.2	
10/3/2017					2.2				6.5
10/4/2017	4.7		6.8	2.6					
10/5/2017		7						4.7	
10/11/2017						2.4			
10/12/2017							3.8		
11/20/2017						1.8	4.4		
1/10/2018							4.6		
1/11/2018						1.6			
2/19/2018							4.6		
2/20/2018						2			
4/3/2018						3.3	5.9		
6/5/2018					1.7				
6/6/2018				2.7					4.7
6/7/2018		6.8						4.4	
6/11/2018	4.9		6.8						
6/28/2018						2.1	5		
8/7/2018						1.2	4.3		
9/24/2018						1.3	4.9		
9/25/2018	5.6	7.9	7.8	3.6	2.2				
9/26/2018								4.8	4.8
3/26/2019							4.4		
3/27/2019						1.4			
4/2/2019	4.8				2.5				
4/3/2019		6.9	6.3	3.1				4.3	4
9/24/2019					3.1				3.7
9/25/2019	5.7			2.8				4.5	
9/26/2019		7	7.1						
10/9/2019						2.1	5.1		

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/24/2020	5	7	6.8	2.7	2.8		4.7		3.5
3/25/2020						1.9		3.9	

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	4.3								
6/7/2016		2.9							
6/8/2016			5.9	7.6					
7/26/2016	4.4								
7/28/2016		3.5							
8/1/2016			5.3	5.7					
8/30/2016								4.4	
8/31/2016									1.5
9/2/2016					6.3				
9/14/2016	3.8								
9/20/2016		2.4	5.5						
9/21/2016				5.5					
11/4/2016	4.8								
11/8/2016		2.8	6.4						
11/14/2016				6.4	6.7				
11/16/2016								4.7	1.7
1/12/2017	3.8								
1/16/2017		1.8							
1/17/2017			5.5	5.3					
2/24/2017									1.5
2/27/2017								4.7	
2/28/2017					5.4				
3/1/2017				5.5					
3/7/2017	4.5								
3/8/2017			5.4						
3/9/2017		1.7							
5/2/2017	4.6	1.8	5.7						
5/3/2017				6.1					
5/9/2017					5.7				
5/10/2017								4.4	1.2
6/27/2017	4.3								
7/7/2017			5.7						
7/10/2017		1.9		5.6					
7/11/2017								4.7	1.5
7/13/2017					5.4				
9/22/2017					6.9				
9/29/2017					5.5				
10/3/2017	4.2								
10/5/2017			6						
10/6/2017					5.5				
10/11/2017		2.4		5.8	6.4				
10/12/2017						6	3.1	4.3	1.6
11/20/2017						6.9			
11/21/2017							4.2		
1/11/2018							3.8		
1/12/2018						6.6			
2/19/2018							3.5		
2/20/2018						6.2			
4/3/2018						6.9	4.4		
4/4/2018								3.7	1.8
6/7/2018	4.5								
6/12/2018		1.8	6.2	5.9					

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/13/2018					5.6				
6/27/2018							3.6		
6/28/2018						6.4			
8/7/2018						5.5	3.3		
9/20/2018								3.8	1.9
9/24/2018						5.9	3.3		
9/26/2018	5.1		6.9	4.7	6				
9/27/2018		2							
3/27/2019						6.2		3.9	
3/28/2019							3.2		1.8
4/3/2019	4.2								
4/4/2019		1.7	5.9	5.8	5.4				
9/24/2019	4.5								
9/26/2019			6.5	4.5	7.1				
9/27/2019		1.7							
10/9/2019						5	3.3	4.1	2.3
3/24/2020	4.3								
3/25/2020				3.8	6.3	4	2.7	3.2	1.8
3/26/2020		1.6	5.4						

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-49

9/1/2016	5.3
11/15/2016	5.8
2/27/2017	4.6
5/9/2017	5.3
7/13/2017	4.7
10/11/2017	5.8
4/4/2018	4.3
9/20/2018	4.8
3/28/2019	4.4
9/26/2019	5
3/25/2020	4.1

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.01	<0.01
6/6/2016		0.0012 (J)	<0.01						
6/7/2016	<0.01			<0.01	<0.01				
7/26/2016								<0.01	<0.01
7/27/2016	0.0008 (J)	0.0007 (J)	0.0006 (J)	0.0005 (J)					
7/28/2016					<0.01				
9/14/2016								<0.01	<0.01
9/16/2016	<0.01		<0.01						
9/19/2016		<0.01		<0.01	<0.01				
11/2/2016				<0.01				<0.01	<0.01
11/3/2016	<0.01	<0.01	<0.01		<0.01				
1/11/2017	<0.01	<0.01	<0.01						
1/12/2017									<0.01
1/13/2017				<0.01	<0.01			<0.01	
3/1/2017		0.0012 (J)	<0.01						
3/2/2017	0.001 (J)								
3/6/2017				<0.01	<0.01			<0.01	
3/7/2017									<0.01
4/26/2017		0.0005 (J)	0.0003 (J)	0.0007 (J)	<0.01				
5/1/2017								<0.01	0.0004 (J)
5/2/2017	0.0007 (J)								
6/27/2017									<0.01
6/28/2017		0.0006 (J)	<0.01						
6/29/2017	0.0006 (J)			0.0005 (J)	<0.01			<0.01	
10/11/2017						<0.01			
10/12/2017							<0.01		
11/20/2017						<0.01	<0.01		
1/10/2018							<0.01		
1/11/2018						<0.01			
2/19/2018							<0.01		
2/20/2018						<0.01			
3/28/2018	<0.01	<0.01	<0.01						
3/29/2018				<0.01	<0.01			<0.01	<0.01
4/3/2018						<0.01	<0.01		
6/28/2018						<0.01	<0.01		
8/7/2018						<0.01	<0.01		
9/24/2018						<0.01	<0.01		
3/4/2019								<0.01	<0.01
3/5/2019	<0.01		<0.01	<0.01	<0.01				
3/6/2019		<0.01							
8/21/2019						<0.01	0.00053 (J)		
10/9/2019						<0.01	0.0012 (J)		
3/24/2020	0.00087 (J)	0.00095 (J)	0.0011 (J)	0.00077 (J)	<0.01		0.00055 (J)		<0.01
3/25/2020						<0.01		0.00058 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.01								
6/7/2016		<0.01							
6/8/2016			<0.01	<0.01					
7/26/2016	<0.01								
7/28/2016		0.0008 (J)							
8/1/2016			<0.01	0.0021 (J)					
8/30/2016								<0.01	
8/31/2016									<0.01
9/2/2016					<0.01				
9/14/2016	<0.01								
9/20/2016		<0.01	<0.01						
9/21/2016				0.0021 (J)					
11/4/2016	<0.01								
11/8/2016		<0.01	<0.01						
11/14/2016				<0.01	0.0035				
11/16/2016								<0.01	<0.01
1/12/2017	<0.01								
1/16/2017		<0.01							
1/17/2017			<0.01	<0.01					
2/24/2017									<0.01
2/27/2017								<0.01	
2/28/2017					<0.01				
3/1/2017				0.0014 (J)					
3/7/2017	<0.01								
3/8/2017			<0.01						
3/9/2017		<0.01							
5/2/2017	<0.01	0.0007 (J)	0.0011 (J)						
5/3/2017				0.0009 (J)					
5/9/2017					<0.01				
5/10/2017								0.0006 (J)	0.0005 (J)
6/27/2017	<0.01								
7/7/2017			<0.01						
7/10/2017		<0.01		<0.01					
7/11/2017								<0.01	<0.01
7/13/2017					<0.01				
9/22/2017					<0.01				
9/29/2017					<0.01				
10/6/2017					<0.01				
10/12/2017						0.0005 (J)	<0.01	<0.01	<0.01
11/20/2017						<0.01			
11/21/2017							<0.01		
1/11/2018							<0.01		
1/12/2018						<0.01			
2/19/2018							<0.01		
2/20/2018						<0.01			
3/29/2018	<0.01								
3/30/2018		<0.01	<0.01	<0.01	<0.01				
4/3/2018						<0.01	<0.01		
4/4/2018								<0.01	<0.01
6/27/2018							<0.01		
6/28/2018						<0.01			
8/7/2018						<0.01	<0.01		

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
9/20/2018								<0.01	<0.01
9/24/2018						<0.01	<0.01		
3/4/2019	<0.01								
3/5/2019			<0.01						
3/6/2019		<0.01		<0.01	<0.01				
8/21/2019									0.00062 (J)
8/22/2019						<0.01	<0.01	<0.01	
10/9/2019						<0.01	<0.01	0.00043 (J)	0.00074 (J)
3/24/2020	0.0014 (J)								
3/25/2020				0.0012 (J)	0.00074 (J)	0.00065 (J)	0.00039 (J)	0.0013 (J)	<0.01
3/26/2020		0.0019 (J)	0.00094 (J)						

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	0.0013 (J)
11/15/2016	0.0014 (J)
2/27/2017	0.0016 (J)
5/9/2017	0.0017 (J)
7/13/2017	0.0019 (J)
10/11/2017	0.0014 (J)
4/4/2018	<0.01
9/20/2018	0.0017 (J)
3/25/2020	0.0019 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								0.00082 (J)	<0.005
6/6/2016		<0.005	0.00061 (J)						
6/7/2016	<0.005			<0.005	0.0056				
7/26/2016								0.0012 (J)	<0.005
7/27/2016	<0.005	<0.005	0.0004 (J)	<0.005					
7/28/2016					0.0032 (J)				
9/14/2016								0.0006 (J)	<0.005
9/16/2016	<0.005		0.0008 (J)						
9/19/2016		<0.005		<0.005	0.0047 (J)				
11/2/2016				<0.005				<0.005	<0.005
11/3/2016	<0.005	<0.005	<0.005		0.013				
1/11/2017	<0.005	<0.005	<0.005						
1/12/2017									<0.005
1/13/2017				<0.005	0.011			0.0029 (J)	
3/1/2017		<0.005	<0.005						
3/2/2017	<0.005								
3/6/2017				<0.005	0.011			0.0006 (J)	
3/7/2017									<0.005
4/26/2017		<0.005	<0.005	<0.005	0.009 (J)				
5/1/2017								<0.005	<0.005
5/2/2017	<0.005								
6/27/2017									<0.005
6/28/2017		<0.005	<0.005						
6/29/2017	<0.005			<0.005	0.0093 (J)			0.0005 (J)	
10/11/2017						<0.005			
10/12/2017							<0.005		
11/20/2017						<0.005	<0.005		
1/10/2018							<0.005		
1/11/2018						<0.005			
2/19/2018							<0.005		
2/20/2018						<0.005			
3/28/2018	<0.005	<0.005	<0.005						
3/29/2018				<0.005	<0.005			<0.005	<0.005
4/3/2018						<0.005	<0.005		
6/5/2018					0.0041 (J)				
6/6/2018				<0.005					<0.005
6/7/2018		<0.005						0.00058 (J)	
6/11/2018	<0.005		<0.005						
6/28/2018						<0.005	<0.005		
8/7/2018						<0.005	<0.005		
9/24/2018						<0.005	<0.005		
9/25/2018	<0.005	<0.005	<0.005	<0.005	0.0044 (J)				
9/26/2018								<0.005	<0.005
3/4/2019								<0.005	<0.005
3/5/2019	<0.005		<0.005	<0.005	0.0039 (J)				
3/6/2019		<0.005							
4/2/2019	<0.005				0.0039 (J)				
4/3/2019		<0.005	<0.005	<0.005				0.00083 (J)	<0.005
8/21/2019						0.00034 (J)	<0.005		
9/24/2019					0.0032 (J)				<0.005
9/25/2019	<0.005			<0.005				<0.005	
9/26/2019		<0.005	<0.005						

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/9/2019						<0.005	<0.005		
3/24/2020	<0.005	<0.005	<0.005	<0.005	0.0061		<0.005		0.00035 (J)
3/25/2020						0.00034 (J)		0.00056 (J)	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.005								
6/7/2016		<0.005							
6/8/2016			<0.005	0.037					
7/26/2016	<0.005								
7/28/2016		<0.005							
8/1/2016			<0.005	0.0297					
8/30/2016								0.0025 (J)	
8/31/2016									<0.005
9/2/2016					0.0006 (J)				
9/14/2016	<0.005								
9/20/2016		<0.005	<0.005						
9/21/2016				0.0237					
11/4/2016	<0.005								
11/8/2016		<0.005	<0.005						
11/14/2016				0.0144	<0.005				
11/16/2016								0.002 (J)	<0.005
1/12/2017	<0.005								
1/16/2017		<0.005							
1/17/2017			<0.005	0.0095 (J)					
2/24/2017									<0.005
2/27/2017								0.0021 (J)	
2/28/2017					<0.005				
3/1/2017				0.0125					
3/7/2017	<0.005								
3/8/2017			<0.005						
3/9/2017		<0.005							
5/2/2017	<0.005	<0.005	<0.005						
5/3/2017				0.0151					
5/9/2017					<0.005				
5/10/2017								0.0021 (J)	<0.005
6/27/2017	<0.005								
7/7/2017			<0.005						
7/10/2017		<0.005		0.0121					
7/11/2017								0.0014 (J)	<0.005
7/13/2017					<0.005				
9/22/2017					<0.005				
9/29/2017					<0.005				
10/6/2017					<0.005				
10/12/2017						<0.005	0.0011 (J)	0.0017 (J)	0.0006 (J)
11/20/2017						<0.005			
11/21/2017							0.0003 (J)		
1/11/2018							0.0003 (J)		
1/12/2018						<0.005			
2/19/2018							<0.005		
2/20/2018						<0.005			
3/29/2018	<0.005								
3/30/2018		<0.005	<0.005	0.013	<0.005				
4/3/2018						<0.005	<0.005		
4/4/2018								<0.005	<0.005
6/7/2018	<0.005								
6/12/2018		<0.005	<0.005	0.014					
6/13/2018					<0.005				

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.00069 (J)		
6/28/2018						<0.005			
8/7/2018						<0.005	<0.005		
9/20/2018								0.003 (J)	0.0034 (J)
9/24/2018						<0.005	<0.005		
9/26/2018	<0.005		<0.005	0.023	<0.005				
9/27/2018		<0.005							
3/4/2019	<0.005								
3/5/2019			<0.005						
3/6/2019		<0.005		0.028	<0.005				
4/3/2019	<0.005								
4/4/2019		<0.005	<0.005	0.031	<0.005				
8/21/2019									0.0026 (J)
8/22/2019						<0.005	<0.005	0.0019 (J)	
9/24/2019	<0.005								
9/26/2019			<0.005	0.023	0.00048 (J)				
9/27/2019		<0.005							
10/9/2019						<0.005	<0.005	0.0019 (J)	0.0023 (J)
3/24/2020	<0.005								
3/25/2020				0.02	0.00038 (J)	<0.005	<0.005	0.0018 (J)	0.0016 (J)
3/26/2020		<0.005	<0.005						

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.005
11/15/2016	0.0006 (J)
2/27/2017	0.0008 (J)
5/9/2017	<0.005
7/13/2017	0.0005 (J)
10/11/2017	0.0006 (J)
4/4/2018	<0.005
9/20/2018	<0.005
9/26/2019	<0.005
3/25/2020	<0.005

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								0.721	5.11
6/6/2016		0.0804 (U)	0.301 (U)						
6/7/2016	0.158 (U)			0.0191 (U)	0.347				
7/26/2016								1.26	6.92
7/27/2016	0.0354 (U)	0.206 (U)	0.196 (U)	0.541 (U)					
7/28/2016					0.815 (U)				
9/14/2016								0.901 (U)	3.96
9/16/2016	1.04		0.915 (U)						
9/19/2016		1.58		0.826 (U)	0.862 (U)				
11/2/2016				0.791 (U)				1.09 (U)	4.53
11/3/2016	0.314 (U)	0.342 (U)	0.928 (U)		0.797 (U)				
1/11/2017	0.34 (U)	0.365 (U)	0.502 (U)						
1/12/2017									4.43
1/13/2017				0.296 (U)	0.72 (U)			1.19	
3/1/2017		0.395 (U)	0.202 (U)						
3/2/2017	0.746 (U)								
3/6/2017				0.518 (U)	0.518 (U)			0.669 (U)	
3/7/2017									4.8
4/26/2017		0.507 (U)	0.264 (U)	0.282 (U)	1.13 (U)				
5/1/2017								0.803 (U)	4.16
5/2/2017	0.111 (U)								
6/27/2017									2.8
6/28/2017		0.892	0.636 (U)						
6/29/2017	0.576 (U)			1.12	0.841 (U)			1.35	
10/11/2017						0.586 (U)			
10/12/2017							1.49		
11/20/2017						0.816 (U)	0.918 (U)		
1/10/2018							1.05		
1/11/2018						0.841 (U)			
2/19/2018							2.05		
2/20/2018						1.58			
3/28/2018	0.438 (U)	0.92 (U)	0.56 (U)						
3/29/2018				1.73	1.91			0.703 (U)	3.42
4/3/2018						0.385 (U)	0.68 (U)		
6/5/2018					1.39				
6/6/2018				0.694 (U)					3.99
6/7/2018		0.668 (U)						0.628 (U)	
6/11/2018	0.901 (U)		0.649 (U)						
6/28/2018						0.283 (U)	1.28		
8/7/2018						0.332 (U)	1.16		
9/24/2018						0.767 (U)	0.965 (U)		
9/25/2018	0.68 (U)	0.141 (U)	0.574 (U)	0.772 (U)	1.62				
9/26/2018								0.756 (U)	2.73
3/4/2019								1.21 (U)	4.43
3/5/2019	0.272 (U)		0.474 (U)	0.84 (U)	0.985 (U)				
3/6/2019		0.714 (U)							
4/2/2019	0.847 (U)				1.42				
4/3/2019		0.385 (U)	0.429 (U)	1.01				1.07 (U)	4.79
8/21/2019						1.01 (U)	1.24 (U)		
9/24/2019					1.35				4.06
9/25/2019	0.412 (U)			1.18 (U)				1.86	
9/26/2019		0.386 (U)	0.222 (U)						

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/8/2019						1.02 (U)	0.866 (U)		
3/24/2020	0.534 (U)	0.632 (U)	0.262 (U)	1.88	1.24 (U)		1.27 (U)		3.52
3/25/2020						0.377 (U)		0.766 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	0.614								
6/7/2016		0.303 (U)							
6/8/2016			1.06	0.384 (U)					
7/26/2016	1.47								
7/28/2016		0.386 (U)							
8/1/2016			0.467 (U)	1.55					
8/30/2016								2.99	
8/31/2016									0.926 (U)
9/2/2016					0.873 (U)				
9/14/2016	1.27								
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)				
11/4/2016	0.434 (U)								
11/8/2016		0.22 (U)	0.433 (U)						
11/14/2016				0.851 (U)	0.0451 (U)				
11/16/2016								4.01	0.773 (U)
1/12/2017	0.202 (U)								
1/16/2017		0.147 (U)							
1/17/2017			0.0759 (U)	1.41 (U)					
2/24/2017									0.661 (U)
2/27/2017								2.5	
2/28/2017					1.34 (U)				
3/1/2017				1.13					
3/7/2017	0.0674 (U)								
3/8/2017			0.479 (U)						
3/9/2017		0.0892 (U)							
5/2/2017	0.444 (U)	0.149 (U)	0.506 (U)						
5/3/2017				0.584 (U)					
5/9/2017					0.309 (U)				
5/10/2017								2.55	1.27
6/27/2017	0.77 (U)								
7/7/2017			0.713 (U)						
7/10/2017		0.815 (U)		0.46 (U)					
7/11/2017								3.94	1.02
7/13/2017					0.618 (U)				
10/12/2017						1.24	0.641 (U)	3.57	1.58
11/20/2017						0.342 (U)			
11/21/2017							2.01		
1/11/2018							0.919 (U)		
1/12/2018						1.04			
2/19/2018							1.82		
2/20/2018						1.6 (U)			
3/29/2018	0.648 (U)								
3/30/2018		0.659 (U)	0.409 (U)	0.607 (U)	0.721 (U)				
4/3/2018						0.726 (U)	0.911 (U)		
4/4/2018								1.9	1.71
6/7/2018	0.745 (U)								
6/12/2018		1.03 (U)	0.728 (U)	0.633 (U)					
6/13/2018					1.04 (U)				

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.429 (U)		
6/28/2018						1.06 (U)			
8/7/2018						1.21	0.579 (U)		
9/20/2018								1.94	2.8
9/24/2018						1.52	1.39		
9/26/2018	0.377 (U)		0.981	1.38	0.604 (U)				
9/27/2018		1.06 (U)							
3/4/2019	1 (U)								
3/5/2019			0.837 (U)						
3/6/2019		0.736 (U)		0.97 (U)	0.919 (U)				
4/3/2019	0.43 (U)								
4/4/2019		0.474 (U)		1.14	1.05 (U)				
4/9/2019			0.502 (U)						
8/21/2019									3.16
8/22/2019						1.97	2.03	1.59	
9/24/2019	0.699 (U)								
9/26/2019			0.964 (U)	1.08 (U)	0.979 (U)				
9/27/2019		0.684 (U)							
10/8/2019						0.751 (U)	0.609 (U)	0.995 (U)	3.65
3/25/2020				1.44	1.22 (U)	0.321 (U)	0.568 (U)	1.17 (U)	3.04
3/26/2020		0.281 (U)	0.511 (U)						

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	1.2
11/15/2016	0.645 (U)
2/27/2017	0.244 (U)
5/9/2017	0.519 (U)
7/13/2017	0.5 (U)
10/11/2017	1.41
4/4/2018	0.442 (U)
9/20/2018	1.14 (U)
9/26/2019	1.16 (U)
3/25/2020	1.2 (U)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.3	0.11 (J)
6/6/2016		<0.3	<0.3						
6/7/2016	<0.3			<0.3	<0.3				
7/26/2016								<0.3	0.05 (J)
7/27/2016	<0.3	<0.3	<0.3	<0.3					
7/28/2016					0.02 (J)				
9/14/2016								<0.3	0.04 (J)
9/16/2016	<0.3		<0.3						
9/19/2016		<0.3		<0.3	0.02 (J)				
11/2/2016				<0.3				<0.3	<0.3
11/3/2016	<0.3	<0.3	<0.3		<0.3				
1/11/2017	<0.3	<0.3	<0.3						
1/12/2017									0.04 (J)
1/13/2017				<0.3	<0.3			<0.3	
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
4/26/2017		<0.3	<0.3	<0.3	0.04 (J)				
5/1/2017								<0.3	<0.3
5/2/2017	<0.3								
6/27/2017									<0.3
6/28/2017		<0.3	<0.3						
6/29/2017	<0.3			<0.3	<0.3			<0.3	
10/3/2017					<0.3				<0.3
10/4/2017	<0.3		<0.3	<0.3					
10/5/2017		<0.3						<0.3	
10/11/2017						<0.3			
10/12/2017							<0.3		
11/20/2017						<0.3	<0.3		
1/10/2018							<0.3		
1/11/2018						<0.3			
2/19/2018							<0.3		
2/20/2018						0.23			
3/28/2018	<0.3	<0.3	<0.3						
3/29/2018				<0.3	<0.3			<0.3	<0.3
4/3/2018						<0.3	<0.3		
6/5/2018					0.13 (J)				
6/6/2018				<0.3					0.15 (J)
6/7/2018		<0.3						<0.3	
6/11/2018	<0.3		<0.3						
6/28/2018						<0.3	<0.3		
8/7/2018						0.048 (J)	<0.3		
9/24/2018						<0.3	<0.3		
9/25/2018	<0.3	<0.3	<0.3	<0.3	0 (J)				
9/26/2018								<0.3	<0.3
3/4/2019								<0.3	0.19 (J)
3/5/2019	<0.3		<0.3	<0.3	0.32				
3/6/2019		<0.3							
3/26/2019							<0.3		
3/27/2019						<0.3			
4/2/2019	<0.3				0.12 (J)				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
4/3/2019		<0.3	<0.3	<0.3				<0.3	0.047 (J)
8/21/2019						<0.3	<0.3		
9/24/2019					0.15 (J)				0.05 (J)
9/25/2019	<0.3			<0.3				<0.3	
9/26/2019		<0.3	<0.3						
10/9/2019						<0.3	<0.3		
3/24/2020	<0.3	<0.3	<0.3	<0.3	0.081 (J)		<0.3		<0.3
3/25/2020						<0.3		<0.3	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.3								
6/7/2016		<0.3							
6/8/2016			<0.3	0.34					
7/26/2016	<0.3								
7/28/2016		0.03 (J)							
8/1/2016			<0.3	0.24 (J)					
8/30/2016								0.02 (J)	
8/31/2016									0.12 (J)
9/2/2016					0.05 (J)				
9/14/2016	<0.3								
9/20/2016		<0.3	<0.3						
9/21/2016				0.22 (J)					
11/4/2016	<0.3								
11/8/2016		<0.3	<0.3						
11/14/2016				0.35	0.18 (J)				
11/16/2016								0.07 (J)	0.2 (J)
1/12/2017	<0.3								
1/16/2017		<0.3							
1/17/2017			<0.3	0.22 (J)					
2/24/2017									0.21 (J)
2/27/2017								0.06 (J)	
2/28/2017					0.09 (J)				
3/1/2017				0.33					
3/7/2017	<0.3								
3/8/2017			<0.3						
3/9/2017		<0.3							
5/2/2017	<0.3	<0.3	<0.3						
5/3/2017				0.2 (J)					
5/9/2017					0.009 (J)				
5/10/2017								<0.3	0.04 (J)
6/27/2017	<0.3								
7/7/2017			<0.3						
7/10/2017		<0.3		0.57					
7/11/2017								<0.3	0.2 (J)
7/13/2017					<0.3				
9/22/2017					0.09 (J)				
9/29/2017					<0.3				
10/3/2017	<0.3								
10/5/2017			<0.3						
10/6/2017					<0.3				
10/11/2017		<0.3		<0.3	<0.3				
10/12/2017						<0.3	<0.3	<0.3	0.1 (J)
11/20/2017						0.2 (J)			
11/21/2017							<0.3		
1/11/2018							<0.3		
1/12/2018						0.21 (J)			
2/19/2018							<0.3		
2/20/2018						<0.3			
3/29/2018	<0.3								
3/30/2018		<0.3	<0.3	1.4	<0.3				
4/3/2018						0.41	<0.3		
4/4/2018								<0.3	<0.3

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/7/2018	<0.3								
6/12/2018		<0.3	<0.3	0.18 (J)					
6/13/2018					<0.3				
6/27/2018							<0.3		
6/28/2018						0.43			
8/7/2018						<0.3	0.11 (J)		
9/20/2018								0.041 (J)	<0.3
9/24/2018						0.034 (J)	<0.3		
9/26/2018	<0.3		<0.3	0.07 (J)	<0.3				
9/27/2018		<0.3							
3/4/2019	<0.3								
3/5/2019			<0.3						
3/6/2019		<0.3		0.49	<0.3				
3/27/2019						0.24 (J)		<0.3	
3/28/2019							0.1 (J)		0.078 (J)
4/3/2019	<0.3								
4/4/2019		0.049 (J)	0.033 (J)	0.57	0.043 (J)				
8/21/2019									0.062 (J)
8/22/2019						<0.3	<0.3	<0.3	
9/24/2019	<0.3								
9/26/2019			0.098 (J)	0.48	0.094 (J)				
9/27/2019		0.12 (J)							
10/9/2019						<0.3	<0.3	<0.3	<0.3
3/24/2020	<0.3								
3/25/2020				0.25 (J)	<0.3	<0.3	<0.3	<0.3	0.073 (J)
3/26/2020		<0.3	<0.3						

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	0.09 (J)
11/15/2016	0.16 (J)
2/27/2017	0.06 (J)
5/9/2017	0.05 (J)
7/13/2017	<0.3
10/11/2017	0.14 (J)
4/4/2018	<0.3
9/20/2018	<0.3
3/28/2019	<0.3
9/26/2019	0.09 (J)
3/25/2020	<0.3

Time Series

Constituent: Lead (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.005	<0.005
6/6/2016		<0.005	<0.005						
6/7/2016	<0.005			<0.005	<0.005				
7/26/2016								<0.005	<0.005
7/27/2016	<0.005	<0.005	<0.005	<0.005					
7/28/2016					<0.005				
9/14/2016								<0.005	<0.005
9/16/2016	<0.005		<0.005						
9/19/2016		<0.005		<0.005	<0.005				
11/2/2016				0.0013 (J)				<0.005	<0.005
11/3/2016	<0.005	<0.005	<0.005		<0.005				
1/11/2017	<0.005	<0.005	<0.005						
1/12/2017									<0.005
1/13/2017				<0.005	<0.005			<0.005	
3/1/2017		<0.005	<0.005						
3/2/2017	8E-05 (J)								
3/6/2017				<0.005	<0.005			<0.005	
3/7/2017									0.0001 (J)
4/26/2017		<0.005	<0.005	<0.005	<0.005				
5/1/2017								<0.005	<0.005
5/2/2017	<0.005								
6/27/2017									<0.005
6/28/2017		<0.005	0.0001 (J)						
6/29/2017	8E-05 (J)			<0.005	<0.005			<0.005	
10/11/2017						0.0001 (J)			
10/12/2017							9E-05 (J)		
11/20/2017						<0.005	<0.005		
1/10/2018							<0.005		
1/11/2018						0.0002 (J)			
2/19/2018							<0.005		
2/20/2018						<0.005			
3/28/2018	<0.005	<0.005	<0.005						
3/29/2018				<0.005	<0.005			<0.005	<0.005
4/3/2018						<0.005	<0.005		
6/28/2018						<0.005	<0.005		
8/7/2018						<0.005	<0.005		
9/24/2018						<0.005	<0.005		
3/4/2019								<0.005	<0.005
3/5/2019	<0.005		<0.005	<0.005	<0.005				
3/6/2019		<0.005							
4/2/2019	<0.005				<0.005				
4/3/2019		<0.005	<0.005	<0.005				<0.005	<0.005
8/21/2019						<0.005	<0.005		
9/24/2019					<0.005				<0.005
9/25/2019	<0.005			<0.005				<0.005	
9/26/2019		<0.005	<0.005						
10/9/2019						<0.005	<0.005		
3/24/2020	6.4E-05 (J)	7.1E-05 (J)	5.4E-05 (J)	0.00011 (J)	<0.005		<0.005		5.4E-05 (J)
3/25/2020						5.1E-05 (J)		<0.005	

Time Series

Constituent: Lead (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.005								
6/7/2016		0.00044 (J)							
6/8/2016			<0.005	<0.005					
7/26/2016	<0.005								
7/28/2016		<0.005							
8/1/2016			<0.005	0.0005 (J)					
8/30/2016								<0.005	
8/31/2016									<0.005
9/2/2016					0.0017 (J)				
9/14/2016	<0.005								
9/20/2016		<0.005	<0.005						
9/21/2016				0.0006 (J)					
11/4/2016	<0.005								
11/8/2016		<0.005	<0.005						
11/14/2016				0.0012 (J)	0.0002 (J)				
11/16/2016								0.0002 (J)	<0.005
1/12/2017	<0.005								
1/16/2017		<0.005							
1/17/2017			<0.005	0.002 (J)					
2/24/2017									<0.005
2/27/2017								<0.005	
2/28/2017					0.0003 (J)				
3/1/2017				0.002 (J)					
3/7/2017	7E-05 (J)								
3/8/2017			<0.005						
3/9/2017		<0.005							
5/2/2017	<0.005	<0.005	<0.005						
5/3/2017				<0.005					
5/9/2017					0.0004 (J)				
5/10/2017								9E-05 (J)	8E-05 (J)
6/27/2017	<0.005								
7/7/2017			<0.005						
7/10/2017		<0.005		0.0018 (J)					
7/11/2017								<0.005	<0.005
7/13/2017					0.0004 (J)				
9/22/2017					0.0003 (J)				
9/29/2017					0.0002 (J)				
10/6/2017					0.0002 (J)				
10/12/2017						0.0001 (J)	<0.005	<0.005	<0.005
11/20/2017						0.0001 (J)			
11/21/2017							<0.005		
1/11/2018							7E-05 (J)		
1/12/2018						0.0001 (J)			
2/19/2018							<0.005		
2/20/2018						<0.005			
3/29/2018	<0.005								
3/30/2018		<0.005	<0.005	<0.005	<0.005				
4/3/2018						<0.005	<0.005		
4/4/2018								<0.005	<0.005
6/27/2018							0.0011 (J)		
6/28/2018						<0.005			
8/7/2018						<0.005	<0.005		

Time Series

Constituent: Lead (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
9/20/2018								<0.005	<0.005
9/24/2018						<0.005	<0.005		
3/4/2019	<0.005								
3/5/2019			<0.005						
3/6/2019		<0.005		0.0012 (J)	<0.005				
4/3/2019	<0.005								
4/4/2019		<0.005	<0.005	0.0014 (J)	0.00037 (J)				
8/21/2019									<0.005
8/22/2019						<0.005	6.7E-05 (J)	<0.005	
9/24/2019	9E-05 (J)								
9/26/2019			<0.005	0.00087 (J)	0.00023 (J)				
9/27/2019		0.00013 (J)							
10/9/2019						<0.005	0.00012 (J)	<0.005	<0.005
3/24/2020	6.8E-05 (J)								
3/25/2020				0.00083 (J)	0.0001 (J)	<0.005	<0.005	4.7E-05 (J)	7.5E-05 (J)
3/26/2020		<0.005	5.3E-05 (J)						

Time Series

Constituent: Lead (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.005
11/15/2016	<0.005
2/27/2017	<0.005
5/9/2017	<0.005
7/13/2017	<0.005
10/11/2017	<0.005
4/4/2018	<0.005
9/20/2018	<0.005
9/26/2019	<0.005
3/25/2020	5.9E-05 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								0.013	0.0049 (J)
6/6/2016		0.0088	0.015						
6/7/2016	<0.03			<0.03	0.0055				
7/26/2016								0.0123 (J)	0.0063 (J)
7/27/2016	<0.03	0.0087 (J)	0.0049 (J)	<0.03					
7/28/2016					0.0045 (J)				
9/14/2016								0.0137 (J)	0.0058 (J)
9/16/2016	<0.03		0.0031 (J)						
9/19/2016		0.0043 (J)		<0.03	0.0054 (J)				
11/2/2016				<0.03				0.0136 (J)	0.0053 (J)
11/3/2016	<0.03	<0.03	0.0021 (J)		<0.03				
1/11/2017	0.0035 (J)	0.0052 (J)	0.0025 (J)						
1/12/2017									0.0054 (J)
1/13/2017				<0.03	0.0062 (J)			0.0121 (J)	
3/1/2017		0.0053 (J)	0.0029 (J)						
3/2/2017	<0.03								
3/6/2017				<0.03	0.0059 (J)			0.0143 (J)	
3/7/2017									0.0056 (J)
4/26/2017		0.0041 (J)	0.0019 (J)	<0.03	0.0054 (J)				
5/1/2017								0.0132 (J)	0.0031 (J)
5/2/2017	<0.03								
6/27/2017									0.0018 (J)
6/28/2017		0.0039 (J)	0.0016 (J)						
6/29/2017	<0.03			<0.03	0.0047 (J)			0.0145 (J)	
10/11/2017						0.0018 (J)			
10/12/2017							<0.03		
11/20/2017						0.0018 (J)	<0.03		
1/10/2018							<0.03		
1/11/2018						0.0019 (J)			
2/19/2018							<0.03		
2/20/2018						<0.03			
3/28/2018	<0.03	0.0041 (J)	0.0024 (J)						
3/29/2018				<0.03	0.0062 (J)			0.014 (J)	0.0058 (J)
4/3/2018						0.0022 (J)	<0.03		
6/5/2018					0.0061 (J)				
6/6/2018				<0.03					0.0068 (J)
6/7/2018		0.0032 (J)						0.013 (J)	
6/11/2018	<0.03		0.0014 (J)						
6/28/2018						0.0026 (J)	<0.03		
8/7/2018						0.0024 (J)	<0.03		
9/24/2018						0.0022 (J)	<0.03		
9/25/2018	<0.03	0.0036 (J)	0.0016 (J)	<0.03	0.0062 (J)				
9/26/2018								0.014 (J)	0.0065 (J)
3/4/2019								0.015 (J)	0.0065 (J)
3/5/2019	<0.03		0.0031 (J)	<0.03	0.0053 (J)				
3/6/2019		0.0033 (J)							
4/2/2019	<0.03				0.0051 (J)				
4/3/2019		0.0035 (J)	0.0028 (J)	<0.03				0.014 (J)	0.007 (J)
8/21/2019						0.0035 (J)	<0.03		
9/24/2019					0.0068 (J)				0.0065 (J)
9/25/2019	<0.03			<0.03				0.014 (J)	
9/26/2019		0.0032 (J)	0.0029 (J)						

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/9/2019						0.0036 (J)	<0.03		
3/24/2020	0.0034 (J)	0.0033 (J)	0.0035 (J)	<0.03	0.0064 (J)		<0.03		0.0064 (J)
3/25/2020						0.0049 (J)		0.014 (J)	

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.03								
6/7/2016		<0.03							
6/8/2016			<0.03	0.0099					
7/26/2016	0.0027 (J)								
7/28/2016		0.0019 (J)							
8/1/2016			<0.03	0.0142 (J)					
8/30/2016								0.0257 (J)	
8/31/2016									0.006 (J)
9/2/2016					0.0029 (J)				
9/14/2016	0.0029 (J)								
9/20/2016		0.0021 (J)	<0.03						
9/21/2016				0.0145 (J)					
11/4/2016	<0.03								
11/8/2016		0.0024 (J)	<0.03						
11/14/2016				0.0253 (J)	0.0044 (J)				
11/16/2016								0.0221 (J)	0.0095 (J)
1/12/2017	0.0032 (J)								
1/16/2017		0.0022 (J)							
1/17/2017			<0.03	0.0256 (J)					
2/24/2017									0.0104 (J)
2/27/2017								0.0208 (J)	
2/28/2017					0.0038 (J)				
3/1/2017				0.0219 (J)					
3/7/2017	0.0035 (J)								
3/8/2017			<0.03						
3/9/2017		0.0025 (J)							
5/2/2017	0.0031 (J)	0.0019 (J)	<0.03						
5/3/2017				0.0217 (J)					
5/9/2017					0.0057 (J)				
5/10/2017								0.0316 (J)	0.0123 (J)
6/27/2017	0.0029 (J)								
7/7/2017			<0.03						
7/10/2017		0.0018 (J)		0.0214 (J)					
7/11/2017								0.0281 (J)	0.0131 (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)				
10/12/2017						0.0095 (J)	0.004 (J)	0.0331 (J)	0.013 (J)
11/20/2017						0.0083 (J)			
11/21/2017							0.0043 (J)		
1/11/2018							0.0044 (J)		
1/12/2018						0.0089 (J)			
2/19/2018							<0.03		
2/20/2018						0.0082 (J)			
3/29/2018	0.0034 (J)								
3/30/2018		0.0039 (J)	<0.03	0.024 (J)	0.0061 (J)				
4/3/2018						0.0097 (J)	0.0047 (J)		
4/4/2018								0.037 (J)	0.016 (J)
6/7/2018	0.0032 (J)								
6/12/2018		0.0017 (J)	<0.03	0.023 (J)					
6/13/2018					0.0065 (J)				

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.0042 (J)		
6/28/2018						0.0093 (J)			
8/7/2018						0.0092 (J)	0.0038 (J)		
9/20/2018								0.049 (J)	0.019 (J)
9/24/2018						0.0083 (J)	0.0037 (J)		
9/26/2018	0.0032 (J)		<0.03	0.034 (J)	0.0063 (J)				
9/27/2018		0.0017 (J)							
3/4/2019	0.0032 (J)								
3/5/2019			<0.03						
3/6/2019		0.0025 (J)		0.033 (J)	0.0057 (J)				
4/3/2019	0.0035 (J)								
4/4/2019		0.0018 (J)	<0.03	0.035 (J)	0.0058 (J)				
8/21/2019									0.015 (J)
8/22/2019						0.0082 (J)	0.0035 (J)	0.047	
9/24/2019	0.0031 (J)								
9/26/2019			<0.03	0.028 (J)	0.0041 (J)				
9/27/2019		0.0017 (J)							
10/9/2019						0.0081 (J)	0.0032 (J)	0.037	0.018 (J)
3/24/2020	0.0033 (J)								
3/25/2020				0.029 (J)	0.0032 (J)	0.0081 (J)	0.0029 (J)	0.045	0.016 (J)
3/26/2020		0.0021 (J)	<0.03						

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	0.0034 (J)
11/15/2016	0.0044 (J)
2/27/2017	0.0036 (J)
5/9/2017	0.0038 (J)
7/13/2017	0.0036 (J)
10/11/2017	0.0036 (J)
4/4/2018	0.0039 (J)
9/20/2018	0.0036 (J)
9/26/2019	0.0036 (J)
3/25/2020	0.0037 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.0005	<0.0005
6/6/2016		<0.0005	<0.0005						
6/7/2016	9.5E-05 (J)			9.6E-05 (J)	9.6E-05 (J)				
7/26/2016								<0.0005	<0.0005
7/27/2016	<0.0005	<0.0005	<0.0005	<0.0005					
7/28/2016					<0.0005				
9/14/2016								<0.0005	<0.0005
9/16/2016	<0.0005		<0.0005						
9/19/2016		<0.0005		<0.0005	<0.0005				
11/2/2016				<0.0005				<0.0005	<0.0005
11/3/2016	<0.0005	<0.0005	<0.0005		<0.0005				
1/11/2017	<0.0005	<0.0005	<0.0005						
1/12/2017									<0.0005
1/13/2017				<0.0005	<0.0005			<0.0005	
3/1/2017		<0.0005	<0.0005						
3/2/2017	<0.0005								
3/6/2017				<0.0005	<0.0005			<0.0005	
3/7/2017									<0.0005
4/26/2017		<0.0005	<0.0005	<0.0005	<0.0005				
5/1/2017								<0.0005	<0.0005
5/2/2017	<0.0005								
6/27/2017									<0.0005
6/28/2017		<0.0005	<0.0005						
6/29/2017	<0.0005			<0.0005	<0.0005			<0.0005	
10/11/2017						<0.0005			
10/12/2017							<0.0005		
11/20/2017						7E-05 (J)	8E-05 (J)		
1/10/2018							<0.0005		
1/11/2018						<0.0005			
2/19/2018							<0.0005		
2/20/2018						<0.0005			
3/28/2018	<0.0005	<0.0005	<0.0005						
3/29/2018				<0.0005	<0.0005			<0.0005	<0.0005
4/3/2018						<0.0005	<0.0005		
6/28/2018						<0.0005	3.6E-05 (J)		
8/7/2018						<0.0005	<0.0005		
9/24/2018						<0.0005	<0.0005		
9/25/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
9/26/2018								<0.0005	<0.0005
3/4/2019								<0.0005	<0.0005
3/5/2019	<0.0005		<0.0005	<0.0005	<0.0005				
3/6/2019		<0.0005							
8/21/2019						<0.0005	<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.0005								
6/7/2016		9.8E-05 (J)							
6/8/2016			<0.0005	<0.0005					
7/26/2016	<0.0005								
7/28/2016		<0.0005							
8/1/2016			<0.0005	<0.0005					
8/30/2016								<0.0005	
8/31/2016									<0.0005
9/2/2016					<0.0005				
9/14/2016	<0.0005								
9/20/2016		<0.0005	<0.0005						
9/21/2016				<0.0005					
11/4/2016	<0.0005								
11/8/2016		<0.0005	<0.0005						
11/14/2016				<0.0005	<0.0005				
11/16/2016								<0.0005	<0.0005
1/12/2017	<0.0005								
1/16/2017		<0.0005							
1/17/2017			<0.0005	<0.0005					
2/24/2017									<0.0005
2/27/2017								<0.0005	
2/28/2017					<0.0005				
3/1/2017				<0.0005					
3/7/2017	<0.0005								
3/8/2017			<0.0005						
3/9/2017		<0.0005							
5/2/2017	<0.0005	<0.0005	<0.0005						
5/3/2017				<0.0005					
5/9/2017					<0.0005				
5/10/2017								<0.0005	<0.0005
6/27/2017	<0.0005								
7/7/2017			<0.0005						
7/10/2017		<0.0005		<0.0005					
7/11/2017								<0.0005	<0.0005
7/13/2017					<0.0005				
9/22/2017					<0.0005				
9/29/2017					<0.0005				
10/6/2017					<0.0005				
10/12/2017						<0.0005	<0.0005	<0.0005	<0.0005
11/20/2017						8E-05 (J)			
11/21/2017							6E-05 (J)		
1/11/2018							<0.0005		
1/12/2018						<0.0005			
2/19/2018							<0.0005		
2/20/2018						<0.0005			
3/29/2018	<0.0005								
3/30/2018		<0.0005	<0.0005	<0.0005	<0.0005				
4/3/2018						<0.0005	<0.0005		
4/4/2018								<0.0005	<0.0005
6/27/2018							<0.0005		
6/28/2018						3.7E-05 (J)			
8/7/2018						<0.0005	<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
9/20/2018								4.8E-05 (J)	5.2E-05 (J)
9/24/2018						<0.0005	<0.0005		
9/26/2018	<0.0005		<0.0005	<0.0005	<0.0005				
9/27/2018		<0.0005							
3/4/2019	<0.0005								
3/5/2019			<0.0005						
3/6/2019		<0.0005		<0.0005	<0.0005				
8/21/2019									<0.0005
8/22/2019						<0.0005	<0.0005	<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.0005
11/15/2016	<0.0005
2/27/2017	<0.0005
5/9/2017	<0.0005
7/13/2017	<0.0005
10/11/2017	<0.0005
4/4/2018	<0.0005
9/20/2018	6.1E-05 (J)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.01	0.0035 (J)
6/6/2016		<0.01	<0.01						
6/7/2016	<0.01			<0.01	<0.01				
7/26/2016								<0.01	0.0042 (J)
7/27/2016	<0.01	<0.01	<0.01	<0.01					
7/28/2016					<0.01				
9/14/2016								<0.01	0.0041 (J)
9/16/2016	<0.01		<0.01						
9/19/2016		<0.01		<0.01	<0.01				
11/2/2016				<0.01				<0.01	0.0039 (J)
11/3/2016	<0.01	<0.01	<0.01		<0.01				
1/11/2017	<0.01	<0.01	<0.01						
1/12/2017									0.0041 (J)
1/13/2017				<0.01	<0.01			<0.01	
3/1/2017		<0.01	<0.01						
3/2/2017	<0.01								
3/6/2017				<0.01	0.0007 (J)			<0.01	
3/7/2017									0.0047 (J)
4/26/2017		<0.01	<0.01	<0.01	0.0008 (J)				
5/1/2017								<0.01	0.0045 (J)
5/2/2017	<0.01								
6/27/2017									0.004 (J)
6/28/2017		<0.01	<0.01						
6/29/2017	<0.01			<0.01	<0.01			<0.01	
10/11/2017						0.0094 (J)			
10/12/2017							<0.01		
11/20/2017						0.0081 (J)	<0.01		
1/10/2018							<0.01		
1/11/2018						0.0074 (J)			
2/19/2018							<0.01		
2/20/2018						<0.01			
3/28/2018	<0.01	<0.01	<0.01						
3/29/2018				<0.01	<0.01			<0.01	<0.01
4/3/2018						0.006 (J)	<0.01		
6/28/2018						0.005 (J)	<0.01		
8/7/2018						0.0045 (J)	<0.01		
9/24/2018						0.0035 (J)	<0.01		
3/4/2019								<0.01	<0.01
3/5/2019	<0.01		<0.01	<0.01	<0.01				
3/6/2019		<0.01							
8/21/2019						0.0021 (J)	<0.01		
10/9/2019						0.0018 (J)	<0.01		
3/24/2020	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		0.0011 (J)
3/25/2020						0.002 (J)		<0.01	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.01								
6/7/2016		<0.01							
6/8/2016			<0.01	0.00095 (J)					
7/26/2016	<0.01								
7/28/2016		<0.01							
8/1/2016			<0.01	0.0005 (J)					
8/30/2016								0.0019 (J)	
8/31/2016									0.0022 (J)
9/2/2016					0.0027 (J)				
9/14/2016	<0.01								
9/20/2016		<0.01	<0.01						
9/21/2016				<0.01					
11/4/2016	<0.01								
11/8/2016		<0.01	<0.01						
11/14/2016				<0.01	0.0071 (J)				
11/16/2016								0.0027 (J)	<0.01
1/12/2017	<0.01								
1/16/2017		<0.01							
1/17/2017			<0.01	<0.01					
2/24/2017									<0.01
2/27/2017								0.0031 (J)	
2/28/2017					0.0038 (J)				
3/1/2017				<0.01					
3/7/2017	<0.01								
3/8/2017			<0.01						
3/9/2017		<0.01							
5/2/2017	<0.01	<0.01	<0.01						
5/3/2017				<0.01					
5/9/2017					0.0025 (J)				
5/10/2017								0.0017 (J)	<0.01
6/27/2017	<0.01								
7/7/2017			<0.01						
7/10/2017		<0.01		<0.01					
7/11/2017								0.0014 (J)	<0.01
7/13/2017					0.0014 (J)				
9/22/2017					<0.01				
9/29/2017					<0.01				
10/6/2017					<0.01				
10/12/2017						<0.01	<0.01	<0.01	<0.01
11/20/2017						<0.01			
11/21/2017							<0.01		
1/11/2018							<0.01		
1/12/2018						<0.01			
2/19/2018							<0.01		
2/20/2018						<0.01			
3/29/2018	<0.01								
3/30/2018		<0.01	<0.01	<0.01	<0.01				
4/3/2018						<0.01	<0.01		
4/4/2018								<0.01	<0.01
6/27/2018							<0.01		
6/28/2018						<0.01			
8/7/2018						<0.01	<0.01		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
9/20/2018								<0.01	<0.01
9/24/2018						<0.01	<0.01		
3/4/2019	<0.01								
3/5/2019			<0.01						
3/6/2019		<0.01		<0.01	<0.01				
8/21/2019									0.0012 (J)
8/22/2019						<0.01	<0.01	<0.01	
10/9/2019						<0.01	<0.01	<0.01	0.0012 (J)
3/24/2020	<0.01								
3/25/2020				<0.01	<0.01	<0.01	<0.01	<0.01	0.0015 (J)
3/26/2020		<0.01	<0.01						

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.01
11/15/2016	<0.01
2/27/2017	0.0007 (J)
5/9/2017	<0.01
7/13/2017	<0.01
10/11/2017	<0.01
4/4/2018	<0.01
9/20/2018	<0.01
3/25/2020	<0.01

Time Series

Constituent: pH (S.U.) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								6.36	7.67
6/6/2016		6.17	5.71						
6/7/2016	5.62			5.77	6.1				
7/26/2016								6.22	7.66
7/27/2016	5.59	6.14	5.46	5.79					
7/28/2016					6.12				
9/14/2016								6.23	7.6
9/16/2016	5.58								
9/19/2016		6.04	5.59	5.73	6.12				
11/2/2016				5.67				6.08	7.35
11/3/2016	5.59	5.97	5.39		6.07				
1/11/2017	5.59	6.05	5.48						
1/12/2017									7.49
1/13/2017				5.79	6.41			6.19	
3/1/2017		5.94	5.41						
3/2/2017	5.54								
3/6/2017				5.63	6.34			6.2	
3/7/2017									7.43
4/26/2017		5.99	5.4	5.66	6.32				
5/1/2017								6.21	7.22
5/2/2017	5.47								
6/27/2017									7.32
6/28/2017		6	5.36						
6/29/2017	5.56			5.85	6.47			6.21	
10/3/2017					6.56				7.48
10/4/2017	5.57		5.32	5.83					
10/5/2017		6.11						6.16	
10/11/2017						6.4			
10/12/2017							5.43		
11/20/2017						6.33	5.1		
1/10/2018							4.97		
1/11/2018						6.29			
2/19/2018							5.6		
2/20/2018						7.22			
3/28/2018	5.59	6.1	5.34						
3/29/2018				5.93	6.75			6.09	7.02
4/3/2018						6.87	5.84		
6/5/2018					6.09				
6/6/2018				5.86					7.43
6/7/2018		5.98						6.12	
6/11/2018	5.58		5.28						
6/28/2018						6.18	5.24		
8/7/2018						6.08	5.18		
9/24/2018						5.81	5.14		
9/25/2018	5.59	5.81	4.86	5.84	6.67				
9/26/2018								5.84	7.13
3/4/2019								6.18	7.46
3/5/2019	5.48		5.26	6.07	7.22				
3/6/2019		5.99							
3/26/2019							5.3		
3/27/2019						5.84			
4/2/2019	5.74				6.94				

Time Series

Constituent: pH (S.U.) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
4/3/2019		6.29	5.47	5.71				6.43	7.11
8/21/2019						5.96	5.26		
9/24/2019					6.87				6.93
9/25/2019	5.49			5.86				6.2	
9/26/2019		6.04	5.2						
10/9/2019						5.81	5.22		
3/24/2020	5.57	5.98	5.33	5.86	6.35		5.29		7.34
3/25/2020						5.78		6.26	

Time Series

Constituent: pH (S.U.) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	5.75								
6/7/2016		5.57							
6/8/2016			5.65	5.07					
6/28/2016				4.87					
7/26/2016	5.72								
7/28/2016		5.6							
8/1/2016			5.47	4.62					
8/30/2016								5.64	
8/31/2016									7.27
9/2/2016					5.84				
9/14/2016	5.74								
9/20/2016		5.53	5.61						
9/21/2016				4.63					
11/4/2016	5.61								
11/8/2016		5.53	5.55	4.58					
11/10/2016				4.42					
11/14/2016				4.35	6.28				
11/16/2016								6.21	6.79
1/12/2017	5.71								
1/16/2017		5.59							
1/17/2017			5.53	4.16					
2/24/2017									6.39
2/27/2017								6.09	
2/28/2017					5.99				
3/1/2017				4.17					
3/7/2017	5.66								
3/8/2017			5.62						
3/9/2017		5.56							
5/2/2017	5.65	5.61	5.46						
5/3/2017				4.19					
5/9/2017					6.3				
5/10/2017								5.79	6.5
6/27/2017	5.7								
7/7/2017			5.81						
7/10/2017		5.68		4.02					
7/11/2017								5.45	6.32
7/13/2017					5.57				
9/22/2017					5.5				
9/29/2017					5.58				
10/3/2017	5.79								
10/5/2017			5.45						
10/6/2017					5.51				
10/11/2017		5.46		4.01	5.47				
10/12/2017						4.85	4.94	5.48	5.97
11/20/2017						4.87			
11/21/2017							4.69		
1/11/2018							4.73		
1/12/2018						4.78			
2/19/2018							4.96		
2/20/2018						5.1			
3/29/2018	5.63								
3/30/2018		5.73	5.64	4.05	5.51				

Time Series

Constituent: pH (S.U.) Analysis Run 5/5/2020 3:22 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
4/3/2018						4.76	5.31		
4/4/2018								5.93	6.41
6/7/2018	5.63								
6/12/2018		5.63	5.64	4.03					
6/13/2018					5.5				
6/27/2018							4.78		
6/28/2018						4.75			
8/7/2018						4.72	4.77		
9/20/2018								5.63	5.69
9/24/2018						4.67	4.78		
9/26/2018	5.63		5.61	3.97	5.53				
9/27/2018		5.47							
3/4/2019	5.75								
3/5/2019			5.72						
3/6/2019		5.84		3.27	5.21				
3/27/2019						4.79		5.57	
3/28/2019							5		5.96
4/3/2019	5.63								
4/4/2019		5.64	5.66	3.88	5.74				
8/21/2019									5.84
8/22/2019						4.81	4.89	5.61	
9/24/2019	5.6								
9/26/2019			5.52	3.74	5.51				
9/27/2019		5.77							
10/9/2019						4.8	4.86	5.5	5.78
3/24/2020	5.81								
3/25/2020				3.86	5.49	4.89	4.87	5.53	5.79
3/26/2020		5.69	5.51						

Time Series

Constituent: pH (S.U.) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-49

9/1/2016	5.78
11/15/2016	5.81
2/27/2017	5.68
5/9/2017	6.18
7/13/2017	5.6
10/11/2017	5.61
4/4/2018	5.98
9/20/2018	5.67
3/28/2019	5.86
9/26/2019	5.6
3/25/2020	5.69

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.01	<0.01
6/6/2016		<0.01	<0.01						
6/7/2016	0.001 (J)			<0.01	0.00048 (J)				
7/26/2016								0.0009 (J)	<0.01
7/27/2016	0.0012 (J)	<0.01	<0.01	<0.01					
7/28/2016					<0.01				
9/14/2016								<0.01	<0.01
9/16/2016	0.0015 (J)		<0.01						
9/19/2016		<0.01		<0.01	0.0014 (J)				
11/2/2016				<0.01				<0.01	<0.01
11/3/2016	0.0015 (J)	<0.01	<0.01		<0.01				
1/11/2017	0.0014 (J)	<0.01	<0.01						
1/12/2017									<0.01
1/13/2017				<0.01	<0.01			<0.01	
3/1/2017		<0.01	<0.01						
3/2/2017	0.0017 (J)								
3/6/2017				<0.01	<0.01			<0.01	
3/7/2017									<0.01
4/26/2017		<0.01	<0.01	<0.01	<0.01				
5/1/2017								<0.01	<0.01
5/2/2017	<0.01								
6/27/2017									<0.01
6/28/2017		<0.01	<0.01						
6/29/2017	<0.01			<0.01	<0.01			<0.01	
10/11/2017						<0.01			
10/12/2017							<0.01		
11/20/2017						<0.01	0.0042 (J)		
1/10/2018							0.0043 (J)		
1/11/2018						<0.01			
2/19/2018							<0.01		
2/20/2018						<0.01			
3/28/2018	<0.01	<0.01	<0.01						
3/29/2018				<0.01	<0.01			<0.01	<0.01
4/3/2018						<0.01	<0.01		
6/5/2018					<0.01				
6/6/2018				<0.01					<0.01
6/7/2018		<0.01						<0.01	
6/11/2018	<0.01		<0.01						
6/28/2018						<0.01	0.0032 (J)		
8/7/2018						<0.01	0.0031 (J)		
9/24/2018						0.0015 (J)	0.0026 (J)		
9/25/2018	<0.01	<0.01	<0.01	<0.01	<0.01				
9/26/2018								<0.01	<0.01
3/4/2019								<0.01	<0.01
3/5/2019	<0.01		<0.01	<0.01	<0.01				
3/6/2019		<0.01							
4/2/2019	<0.01				<0.01				
4/3/2019		<0.01	<0.01	<0.01				<0.01	<0.01
8/21/2019						<0.01	0.0024 (J)		
9/24/2019					<0.01				<0.01
9/25/2019	<0.01			<0.01				<0.01	
9/26/2019		<0.01	<0.01						

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
10/9/2019						<0.01	0.0026 (J)		
3/24/2020	<0.01	<0.01	<0.01	<0.01	<0.01		0.002 (J)		<0.01
3/25/2020						<0.01		<0.01	

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.01								
6/7/2016		0.037							
6/8/2016			<0.01	0.0011 (J)					
7/26/2016	0.0009 (J)								
7/28/2016		0.0385							
8/1/2016			<0.01	0.0192					
8/30/2016								0.0711	
8/31/2016									<0.01
9/2/2016					0.0012 (J)				
9/14/2016	<0.01								
9/20/2016		0.0464	<0.01						
9/21/2016				0.0147					
11/4/2016	<0.01								
11/8/2016		0.0521	<0.01						
11/14/2016				<0.01	<0.01				
11/16/2016								0.0313	<0.01
1/12/2017	<0.01								
1/16/2017		0.0469							
1/17/2017			<0.01	0.0122					
2/24/2017									<0.01
2/27/2017								0.0316	
2/28/2017					0.0017 (J)				
3/1/2017				0.0151					
3/7/2017	<0.01								
3/8/2017			<0.01						
3/9/2017		0.0437							
5/2/2017	<0.01	0.0395	<0.01						
5/3/2017				0.012					
5/9/2017					0.0018 (J)				
5/10/2017								0.053	<0.01
6/27/2017	<0.01								
7/7/2017			<0.01						
7/10/2017		0.0386		0.0106					
7/11/2017								0.0697	<0.01
7/13/2017					0.0031 (J)				
9/22/2017					0.0024 (J)				
9/29/2017					0.002 (J)				
10/6/2017					<0.01				
10/12/2017						0.265	0.0191	0.0594	<0.01
11/20/2017						0.246			
11/21/2017							0.0687		
1/11/2018							0.069		
1/12/2018						0.249			
2/19/2018							0.071		
2/20/2018						0.253			
3/29/2018	<0.01								
3/30/2018		0.028	<0.01	0.011	<0.01				
4/3/2018						0.23	0.067		
4/4/2018								0.055	<0.01
6/7/2018	<0.01								
6/12/2018		0.026	<0.01	0.0057 (J)					
6/13/2018					0.0024 (J)				

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/27/2018							0.066		
6/28/2018						0.23			
8/7/2018						0.2	0.061		
9/20/2018								0.041	<0.01
9/24/2018						0.2	0.061		
9/26/2018	<0.01		<0.01	0.016	0.0037 (J)				
9/27/2018		0.023							
3/4/2019	<0.01								
3/5/2019			<0.01						
3/6/2019		0.019		0.013	0.0033 (J)				
4/3/2019	<0.01								
4/4/2019		0.017	<0.01	0.012	0.0029 (J)				
8/21/2019									<0.01
8/22/2019						0.14	0.058	0.047	
9/24/2019	<0.01								
9/26/2019			<0.01	0.011	0.0019 (J)				
9/27/2019		0.018							
10/9/2019						0.12	0.052	0.042	<0.01
3/24/2020	<0.01								
3/25/2020				0.022	0.0024 (J)	0.099	0.057	0.046	<0.01
3/26/2020		0.024	<0.01						

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	0.0086 (J)
11/15/2016	0.0056 (J)
2/27/2017	0.0098 (J)
5/9/2017	0.0076 (J)
7/13/2017	0.0093 (J)
10/11/2017	0.0089 (J)
4/4/2018	<0.01
9/20/2018	0.0081 (J)
9/26/2019	0.0077 (J)
3/25/2020	0.0085 (J)

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								8	20
6/6/2016		1.2	1.8						
6/7/2016	4.4			<1	5.2				
7/26/2016								7.7	20
7/27/2016	4.7	1.7	1.9	0.08 (J)					
7/28/2016					5.1				
9/14/2016								7.5	19
9/16/2016	4.8		1.7						
9/19/2016		1.8		0.08 (J)	4.8				
11/2/2016				0.1 (J)				8.2	20
11/3/2016	5.3	0.69 (J)	1.9		5				
1/11/2017	5.2	<1	1.7						
1/12/2017									19
1/13/2017				<1	4.3			8.1	
3/1/2017		1.8	<1						
3/2/2017	5								
3/6/2017				<1	4.5			8	
3/7/2017									20
4/26/2017		1.6	1.9	<1	4.9				
5/1/2017								8.4	20
5/2/2017	5								
6/27/2017									18
6/28/2017		<1	<1						
6/29/2017	5.2			<1	5.5			9.2	
10/3/2017					5.8				16
10/4/2017	5.3		1.7	<1					
10/5/2017		1.6						9.6	
10/11/2017						20			
10/12/2017							17		
11/20/2017						24	71		
1/10/2018							66		
1/11/2018						23			
2/19/2018							57.2		
2/20/2018						20.6			
4/3/2018						24.5	49.4		
6/5/2018					6.1				
6/6/2018				0.049 (J)					8.3
6/7/2018		0.68 (J)						8.5	
6/11/2018	5.2		0.95 (J)						
6/28/2018						22	43.8		
8/7/2018						20.7	40.5		
9/24/2018						21.2	39.7		
9/25/2018	6.1	1	1.5	0.13 (J)	7				
9/26/2018								10.2	7.9
3/26/2019							34.3		
3/27/2019						17.7			
4/2/2019	5.1				3.8				
4/3/2019		0.82 (J)	1.3	0.12 (J)				8.5	7
9/24/2019					1				5.5
9/25/2019	5.5			<1				8.5	
9/26/2019		0.64 (J)	1						
10/9/2019						15	27.9		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/24/2020	5.4	<1	0.99 (J)	<1	3		25.2		5.9
3/25/2020						14.3		8.8	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	1.9								
6/7/2016		56							
6/8/2016			<1	910					
7/26/2016	1.8								
7/28/2016		57							
8/1/2016			1.1	830					
8/30/2016								980	
8/31/2016									34
9/2/2016					72				
9/14/2016	1.8								
9/20/2016		68	0.38 (J)						
9/21/2016				840					
11/4/2016	2								
11/8/2016		79	0.39 (J)						
11/14/2016				750	110				
11/16/2016								940	240
1/12/2017	1.9								
1/16/2017		72							
1/17/2017			<1	790					
2/24/2017									89
2/27/2017								940	
2/28/2017					110				
3/1/2017				850					
3/7/2017	2.1								
3/8/2017			0.29 (J)						
3/9/2017		69							
5/2/2017	2	60	0.29 (J)						
5/3/2017				800					
5/9/2017					130				
5/10/2017								1200	100
6/27/2017	2.1								
7/7/2017			0.37 (J)						
7/10/2017		57		810					
7/11/2017								1300	110
7/13/2017					140				
9/22/2017					160				
9/29/2017					160				
10/3/2017	2.3								
10/5/2017			<1						
10/6/2017					160				
10/11/2017		52		730	150				
10/12/2017						940	400	1100	120
11/20/2017						980			
11/21/2017							430		
1/11/2018							390		
1/12/2018						880			
2/19/2018							414		
2/20/2018						905			
4/3/2018						872	406		
4/4/2018								1020	160
6/7/2018	2								
6/12/2018		41.4	0.35 (J)	759					

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/13/2018					144				
6/27/2018							357		
6/28/2018						869			
8/7/2018						879	346		
9/20/2018								810	247
9/24/2018						872	358		
9/26/2018	2.3		0.28 (J)	895	160				
9/27/2018		39.6							
3/27/2019						851		831	
3/28/2019							258		181
4/3/2019	2.1								
4/4/2019		27.9	0.29 (J)	847	119				
9/24/2019	2.4								
9/26/2019			0.23 (J)	532	84.8				
9/27/2019		30.3							
10/9/2019						708	263	725	279
3/24/2020	2.1								
3/25/2020				448	58.8	483	214	642	164
3/26/2020		36.5	<1						

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-49

9/1/2016	95
11/15/2016	94
2/27/2017	84
5/9/2017	91
7/13/2017	88
10/11/2017	86
4/4/2018	76.5
9/20/2018	84.1
3/28/2019	82.8
9/26/2019	80
3/25/2020	76.1

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								<0.001	<0.001
6/6/2016		<0.001	<0.001						
6/7/2016	<0.001			<0.001	<0.001				
7/26/2016								<0.001	<0.001
7/27/2016	<0.001	<0.001	<0.001	<0.001					
7/28/2016					<0.001				
9/14/2016								<0.001	<0.001
9/16/2016	<0.001		<0.001						
9/19/2016		<0.001		<0.001	<0.001				
11/2/2016				<0.001				<0.001	<0.001
11/3/2016	<0.001	<0.001	<0.001		<0.001				
1/11/2017	<0.001	<0.001	<0.001						
1/12/2017									<0.001
1/13/2017				<0.001	<0.001			<0.001	
3/1/2017		<0.001	<0.001						
3/2/2017	<0.001								
3/6/2017				<0.001	<0.001			<0.001	
3/7/2017									<0.001
4/26/2017		<0.001	<0.001	<0.001	<0.001				
5/1/2017								<0.001	<0.001
5/2/2017	<0.001								
6/27/2017									<0.001
6/28/2017		<0.001	<0.001						
6/29/2017	<0.001			<0.001	<0.001			<0.001	
10/11/2017						<0.001			
10/12/2017							<0.001		
11/20/2017						<0.001	<0.001		
1/10/2018							<0.001		
1/11/2018						<0.001			
2/19/2018							<0.001		
2/20/2018						<0.001			
3/28/2018	<0.001	<0.001	<0.001						
3/29/2018				<0.001	<0.001			<0.001	<0.001
4/3/2018						<0.001	<0.001		
6/28/2018						<0.001	<0.001		
8/7/2018						<0.001	<0.001		
9/24/2018						<0.001	<0.001		
9/25/2018					<0.001				
3/4/2019								<0.001	<0.001
3/5/2019	<0.001		<0.001	<0.001	<0.001				
3/6/2019		<0.001							
4/2/2019	<0.001				<0.001				
4/3/2019		<0.001	<0.001	<0.001				<0.001	<0.001
8/21/2019						<0.001	<0.001		
9/24/2019					<0.001				<0.001
9/25/2019	<0.001			<0.001				<0.001	
9/26/2019		<0.001	<0.001						
3/24/2020	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001
3/25/2020						<0.001		<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	<0.001								
6/7/2016		<0.001							
6/8/2016			<0.001	<0.001					
7/26/2016	<0.001								
7/28/2016		<0.001							
8/1/2016			<0.001	6E-05 (J)					
8/30/2016								<0.001	
8/31/2016									<0.001
9/2/2016					<0.001				
9/14/2016	<0.001								
9/20/2016		<0.001	<0.001						
9/21/2016				<0.001					
11/4/2016	<0.001								
11/8/2016		<0.001	<0.001						
11/14/2016				<0.001	<0.001				
11/16/2016								<0.001	<0.001
1/12/2017	<0.001								
1/16/2017		<0.001							
1/17/2017			<0.001	0.0004 (J)					
2/24/2017									<0.001
2/27/2017								<0.001	
2/28/2017					<0.001				
3/1/2017				0.0003 (J)					
3/7/2017	<0.001								
3/8/2017			<0.001						
3/9/2017		<0.001							
5/2/2017	<0.001	<0.001	<0.001						
5/3/2017				0.0002 (J)					
5/9/2017					<0.001				
5/10/2017								<0.001	<0.001
6/27/2017	<0.001								
7/7/2017			<0.001						
7/10/2017		<0.001		0.0002 (J)					
7/11/2017								<0.001	<0.001
7/13/2017					<0.001				
9/22/2017					<0.001				
9/29/2017					<0.001				
10/6/2017					<0.001				
10/12/2017						<0.001	<0.001	<0.001	<0.001
11/20/2017						<0.001			
11/21/2017							<0.001		
1/11/2018							<0.001		
1/12/2018						<0.001			
2/19/2018							<0.001		
2/20/2018						<0.001			
3/29/2018	<0.001								
3/30/2018		<0.001	<0.001	<0.001	<0.001				
4/3/2018						<0.001	<0.001		
4/4/2018								<0.001	<0.001
6/27/2018							<0.001		
6/28/2018						<0.001			
8/7/2018						<0.001	<0.001		

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
9/20/2018								<0.001	<0.001
9/24/2018						<0.001	<0.001		
3/4/2019	<0.001								
3/5/2019			<0.001						
3/6/2019		<0.001		0.00016 (J)	<0.001				
4/3/2019	<0.001								
4/4/2019		<0.001	<0.001	0.00018 (J)	<0.001				
8/21/2019									<0.001
8/22/2019						<0.001	<0.001	<0.001	
9/24/2019	<0.001								
9/26/2019			<0.001	0.00014 (J)	<0.001				
9/27/2019		<0.001							
3/24/2020	<0.001								
3/25/2020				0.00015 (J)	<0.001	<0.001	<0.001	<0.001	<0.001
3/26/2020		<0.001	<0.001						

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	<0.001
11/15/2016	<0.001
2/27/2017	9E-05 (J)
5/9/2017	<0.001
7/13/2017	<0.001
10/11/2017	<0.001
4/4/2018	<0.001
9/20/2018	<0.001
9/26/2019	<0.001
3/25/2020	<0.001

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016								96	160
6/6/2016		120	58						
6/7/2016	28			38	60				
7/26/2016								92	177
7/27/2016	74	94	35	74					
7/28/2016					81				
9/14/2016								102	187
9/16/2016	67		35						
9/19/2016		92		45	68				
11/2/2016				53				115	181
11/3/2016	41	104	48		61				
1/11/2017	104	133	95						
1/12/2017									202
1/13/2017				46	76			67	
3/1/2017		119	79						
3/2/2017	77								
3/6/2017				164	167			159	
3/7/2017									257
4/26/2017		162	36	34	50				
5/1/2017								107	165
5/2/2017	142								
6/27/2017									189
6/28/2017		98	45						
6/29/2017	53			68	94			79	
10/3/2017					149				170
10/4/2017	61		45	54					
10/5/2017		104						95	
10/11/2017						68			
10/12/2017							74		
11/20/2017						139	179		
1/10/2018							140		
1/11/2018						153			
2/19/2018							119		
2/20/2018						87			
4/3/2018						85	106		
6/5/2018					109				
6/6/2018				79					151
6/7/2018		68						90	
6/11/2018	70		74						
6/28/2018						88	112		
8/7/2018						89	103		
9/24/2018						82	107		
9/25/2018	86	109	63	73	122				
9/26/2018								116	144
3/26/2019							90		
3/27/2019						75			
4/2/2019	72				134				
4/3/2019		89	63	57				111	142
9/24/2019					157				129
9/25/2019	81			75				117	
9/26/2019		126	72						
10/9/2019						119	98		

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/24/2020	71	91	59	76	117		84		139
3/25/2020						158		146	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/2/2016	66								
6/7/2016		130							
6/8/2016			66	1200					
7/26/2016	78								
7/28/2016		119							
8/1/2016			56	1300					
8/30/2016								1650	
8/31/2016									80
9/2/2016					243				
9/14/2016	73								
9/20/2016		132	53						
9/21/2016				1220					
11/4/2016	75								
11/8/2016		146	58						
11/14/2016				1170	272				
11/16/2016								1420	112
1/12/2017	86								
1/16/2017		194							
1/17/2017			56	1150					
2/24/2017									147
2/27/2017								1640	
2/28/2017					306				
3/1/2017				1160					
3/7/2017	108								
3/8/2017			192						
3/9/2017		288							
5/2/2017	103	221	113						
5/3/2017				1280					
5/9/2017					303				
5/10/2017								1630	203
6/27/2017	73								
7/7/2017			46						
7/10/2017		123		1170					
7/11/2017								1800	238
7/13/2017					282				
9/22/2017					309				
9/29/2017					273				
10/3/2017	89								
10/5/2017			48						
10/6/2017					287				
10/11/2017		100		1110	264				
10/12/2017						1360	636	1600	287
11/20/2017						1390			
11/21/2017							706		
1/11/2018							701		
1/12/2018						1400			
2/19/2018							630		
2/20/2018						1300			
4/3/2018						1390	660		
4/4/2018								1520	292
6/7/2018	142								
6/12/2018		115	79	1150					

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	YGWC-38	YGWC-41	YGWC-42	YGWC-43
6/13/2018					292				
6/27/2018							575		
6/28/2018						1310			
8/7/2018						1340	574		
9/20/2018								1240	434
9/24/2018						1400	588		
9/26/2018	86		59	1280	277				
9/27/2018		105							
3/27/2019						1190		1100	
3/28/2019							372		323
4/3/2019	83								
4/4/2019		85	63	1260	240				
9/24/2019	79								
9/26/2019			81	1070	198				
9/27/2019		96							
10/9/2019						1100	440	1170	501
3/24/2020	68								
3/25/2020				839	164	883	428	1200	352
3/26/2020		110	67						

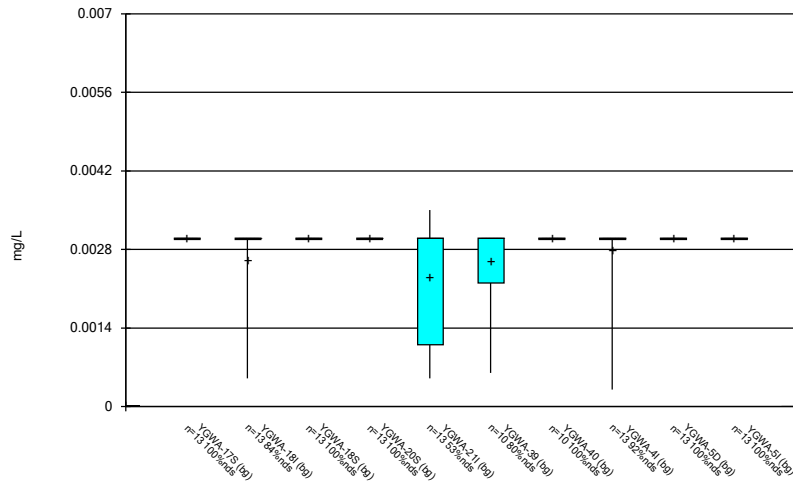
Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 3:22 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-49
9/1/2016	228
11/15/2016	211
2/27/2017	382
5/9/2017	154
7/13/2017	192
10/11/2017	177
4/4/2018	174
9/20/2018	186
3/28/2019	164
9/26/2019	192
3/25/2020	130

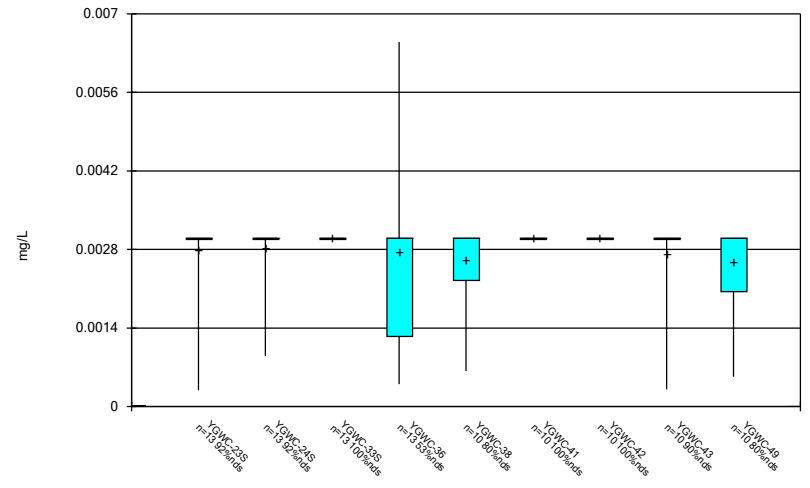
FIGURE B.

Box & Whiskers Plot



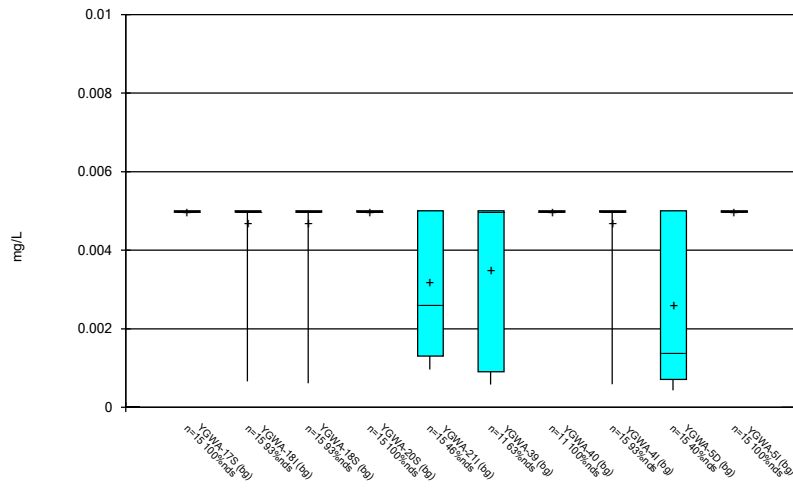
Constituent: Antimony Analysis Run 5/5/2020 3:23 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



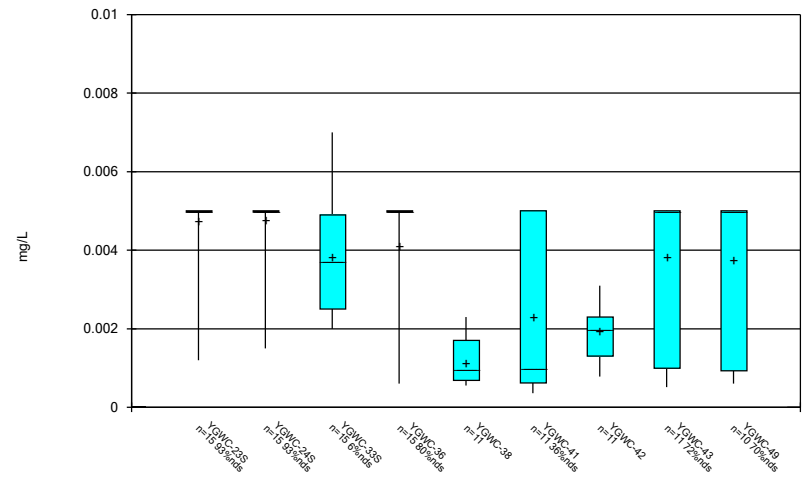
Constituent: Antimony Analysis Run 5/5/2020 3:23 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



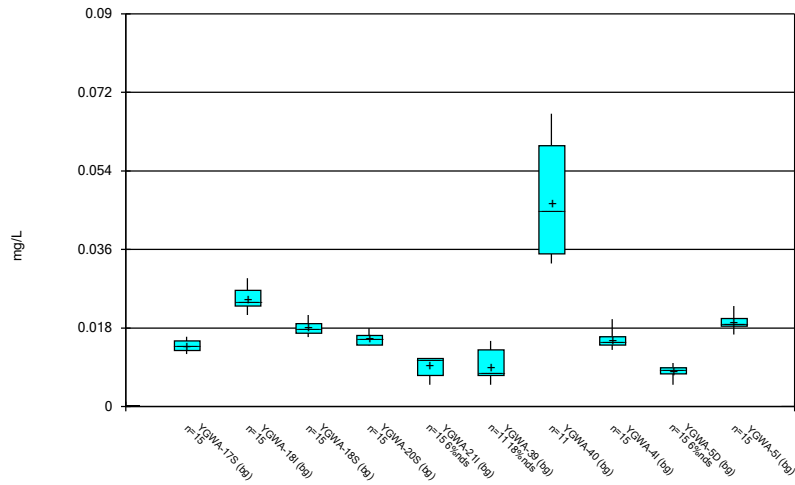
Constituent: Arsenic Analysis Run 5/5/2020 3:23 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



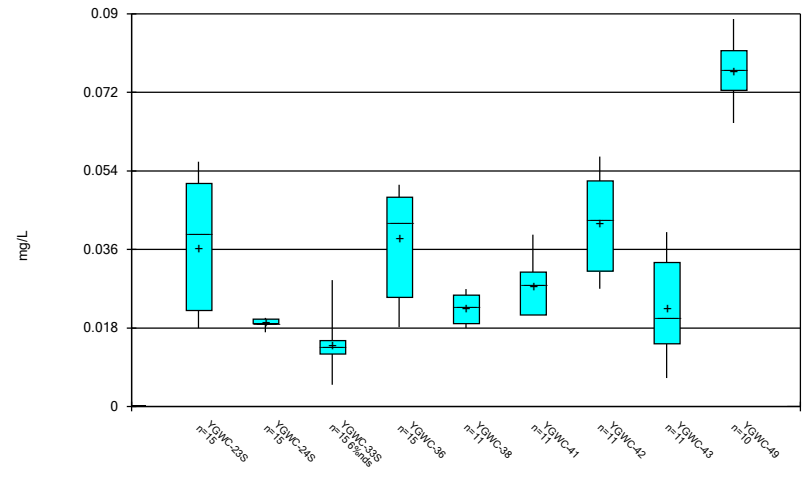
Constituent: Arsenic Analysis Run 5/5/2020 3:23 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



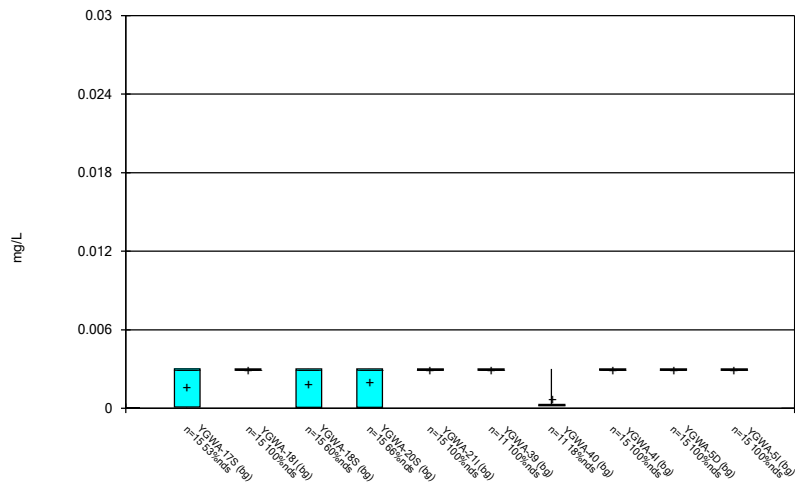
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Box & Whiskers Plot



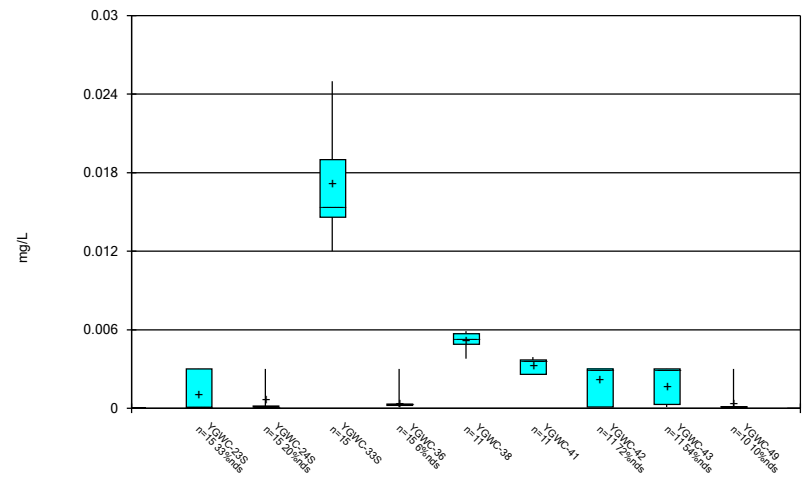
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Box & Whiskers Plot



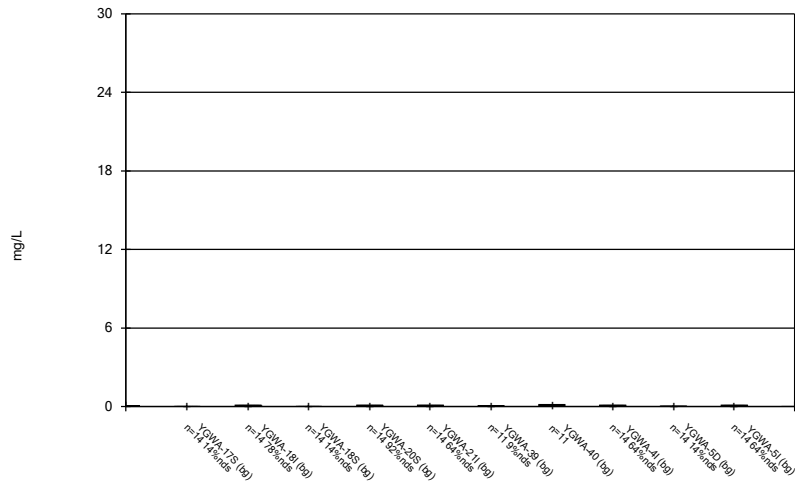
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



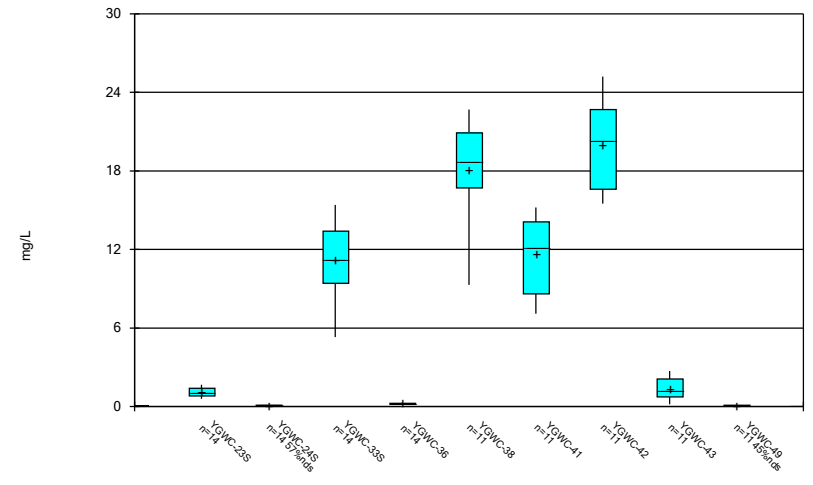
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



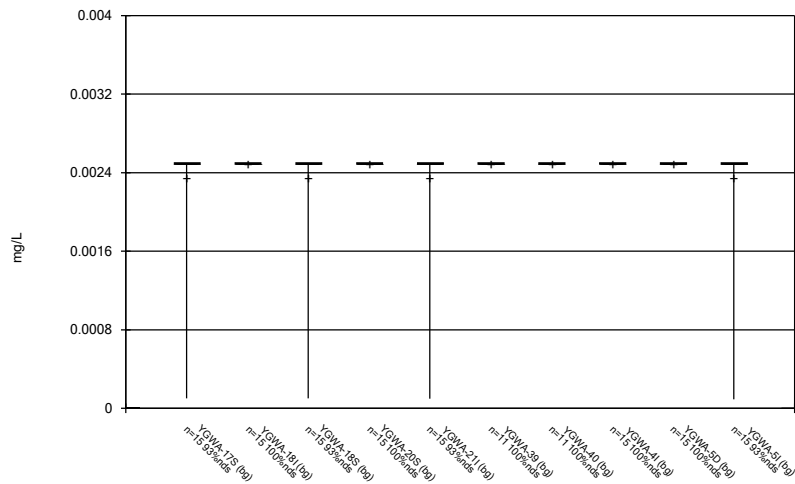
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



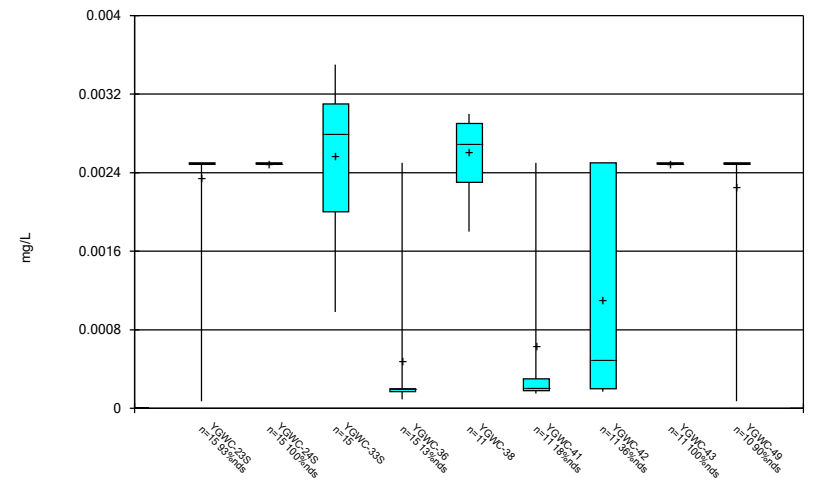
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Box & Whiskers Plot



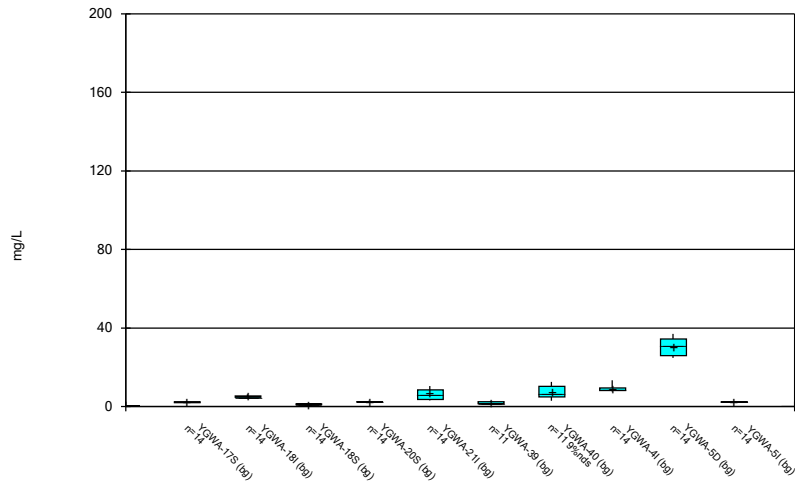
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



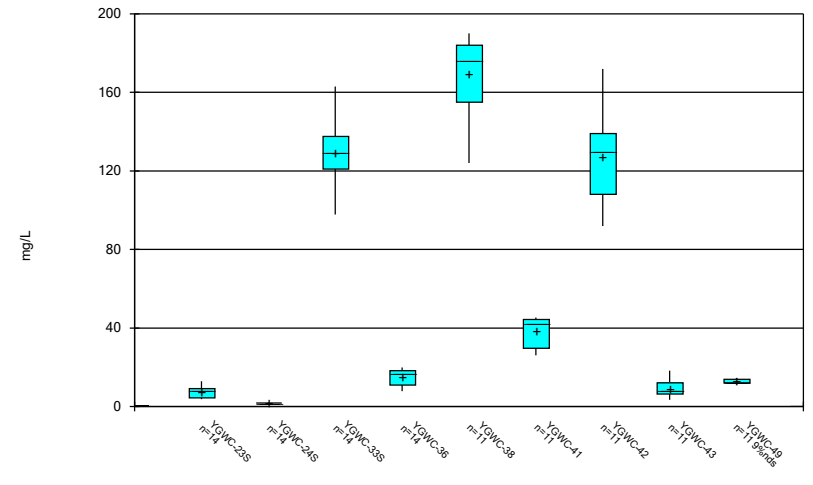
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



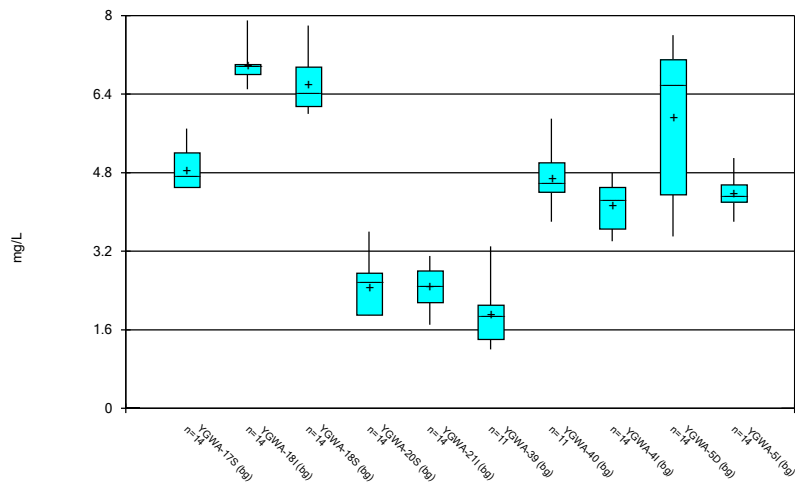
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



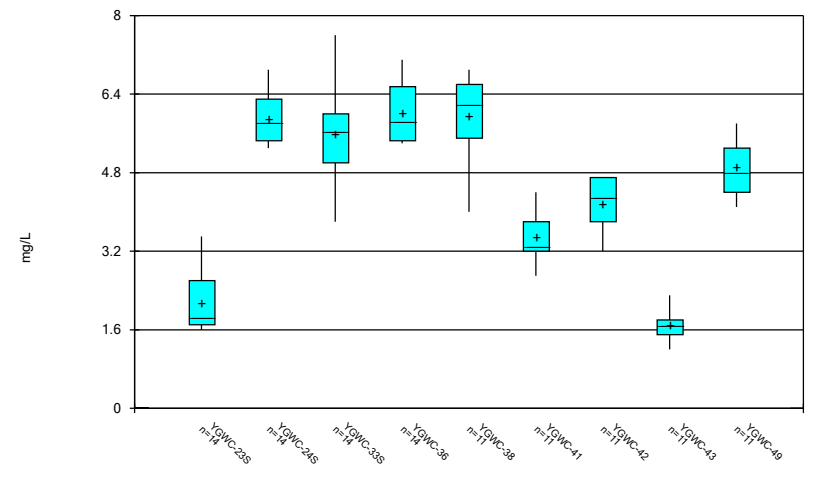
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



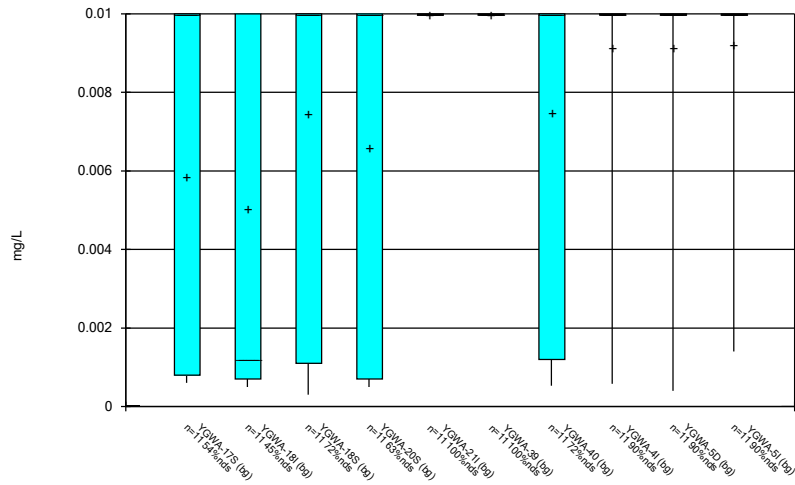
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



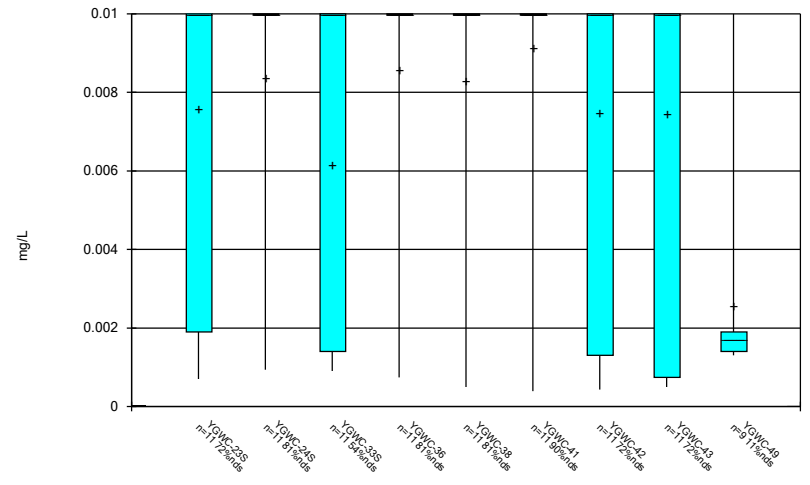
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



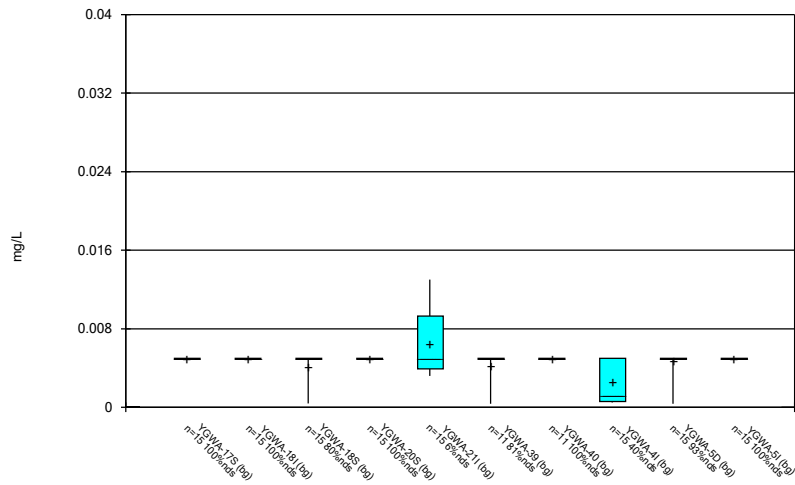
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



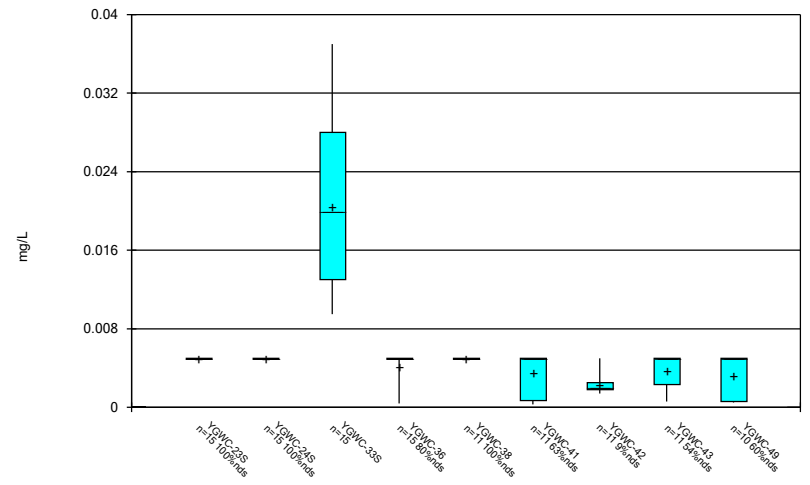
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



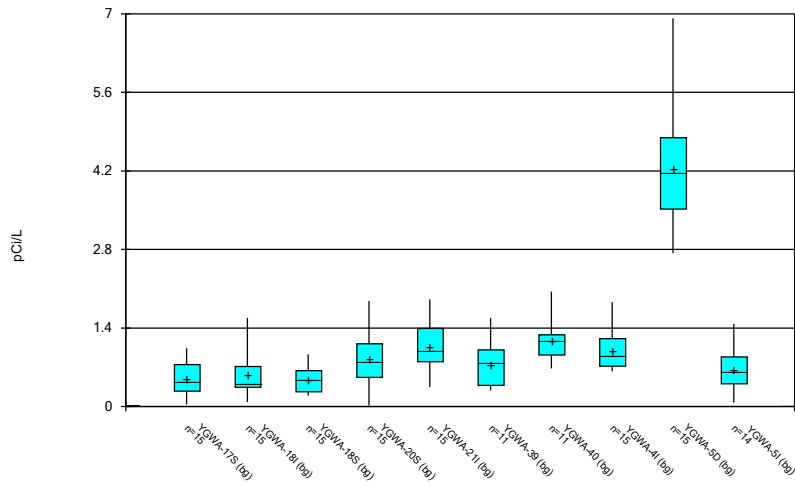
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



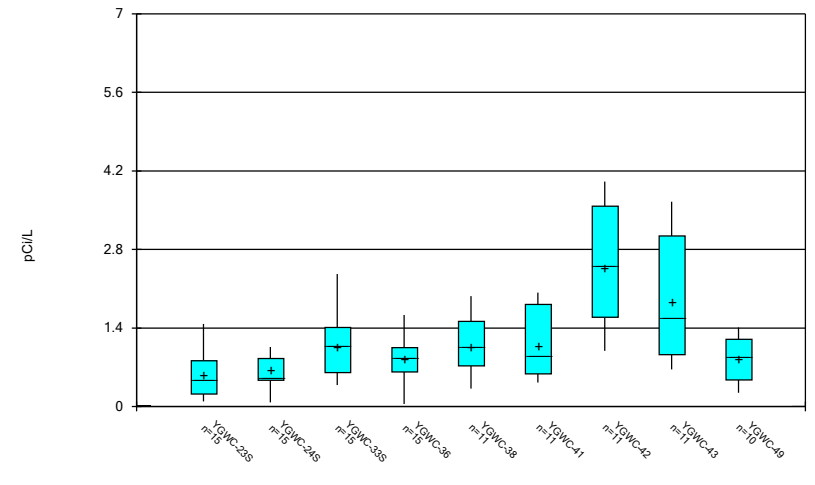
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



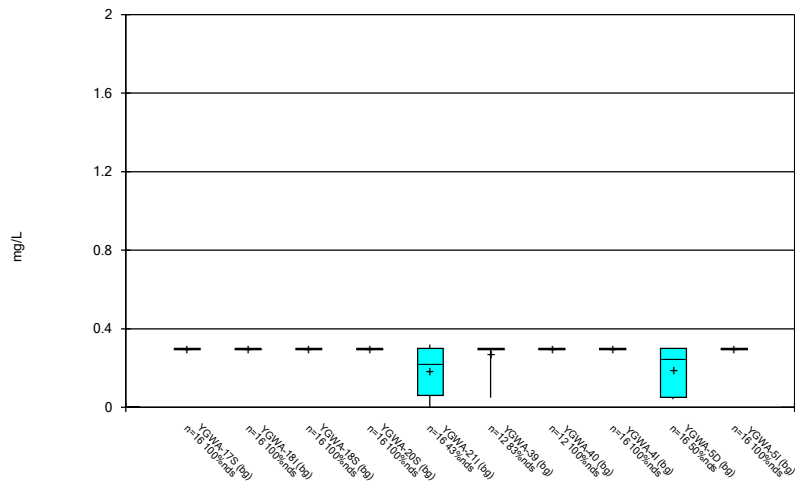
Constituent: Combined Radium 226 + 228 Analysis Run 5/5/2020 3:23 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



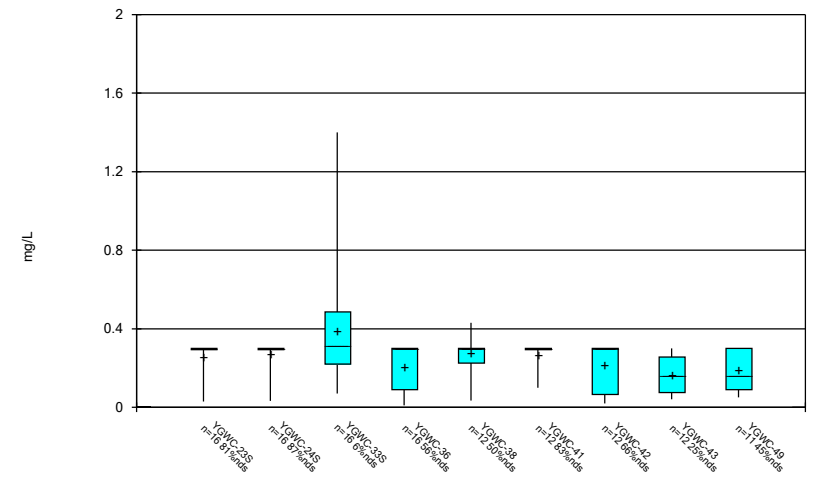
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



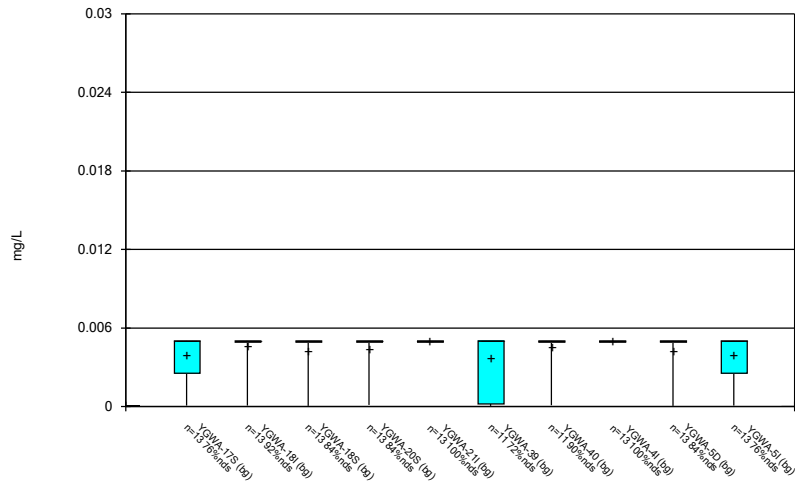
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



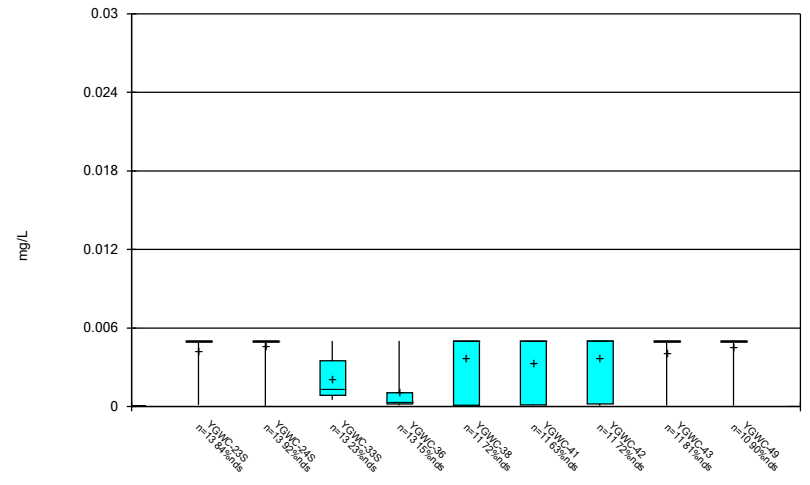
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



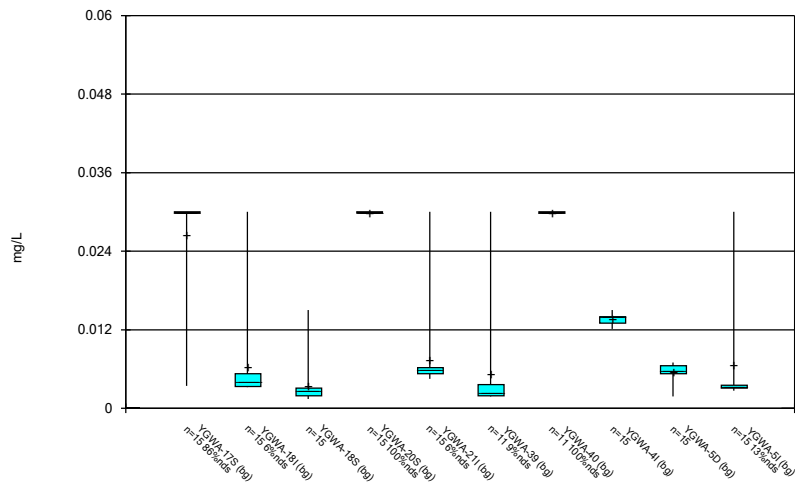
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Box & Whiskers Plot



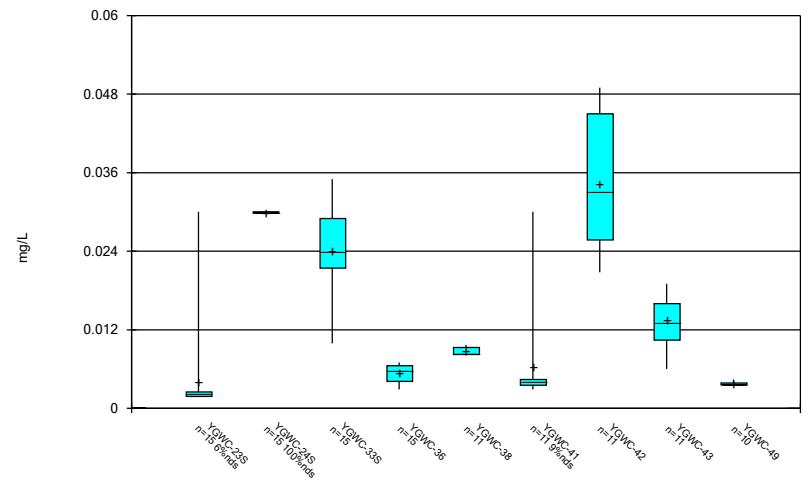
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Box & Whiskers Plot



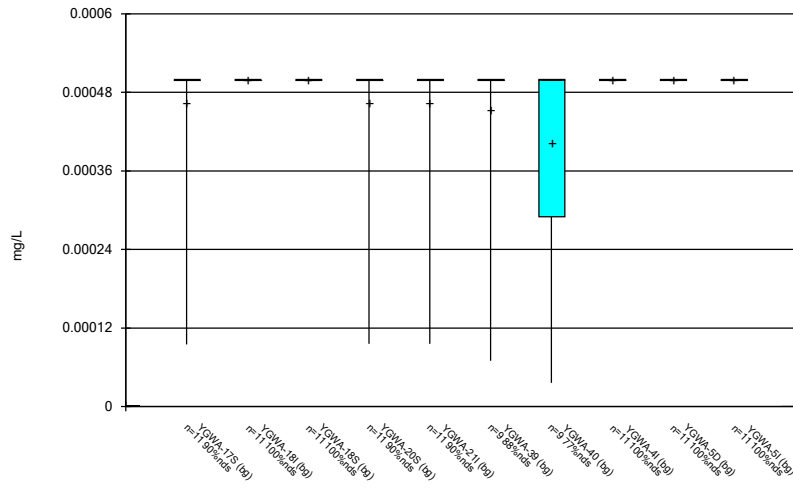
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



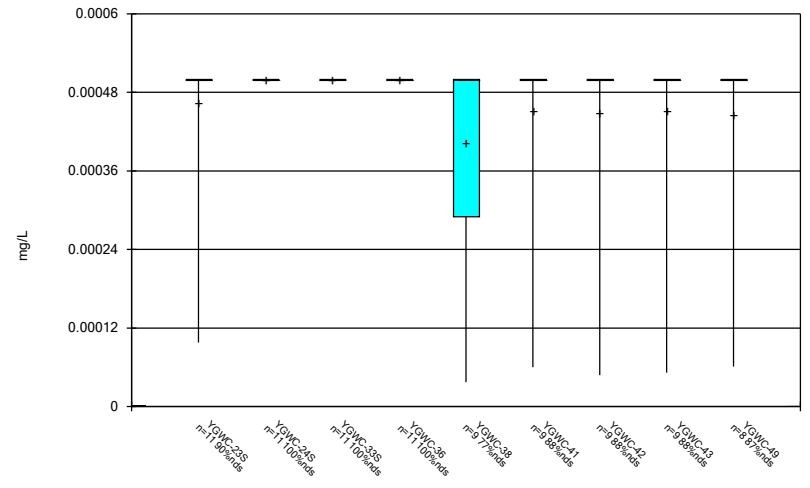
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



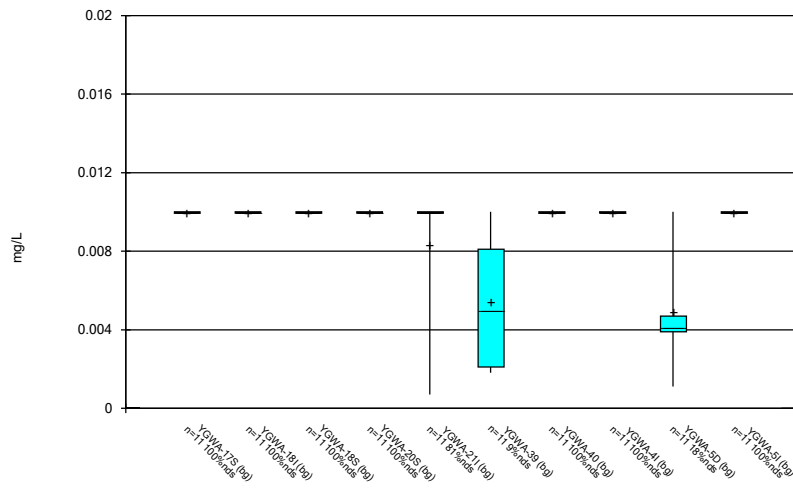
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



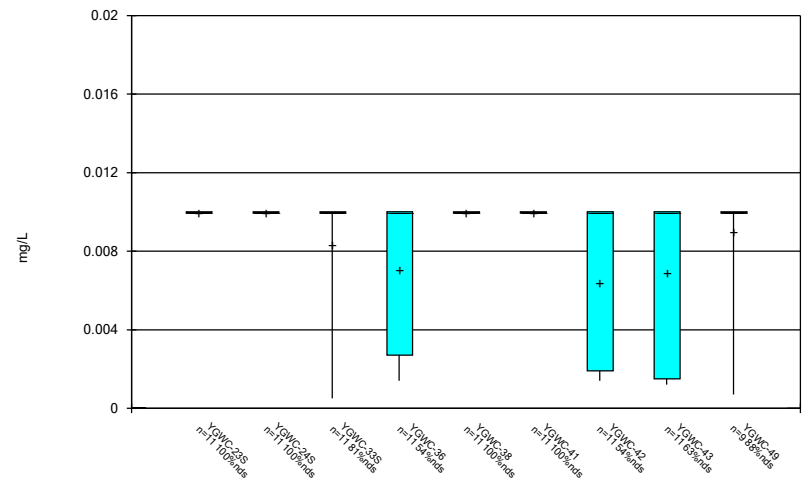
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



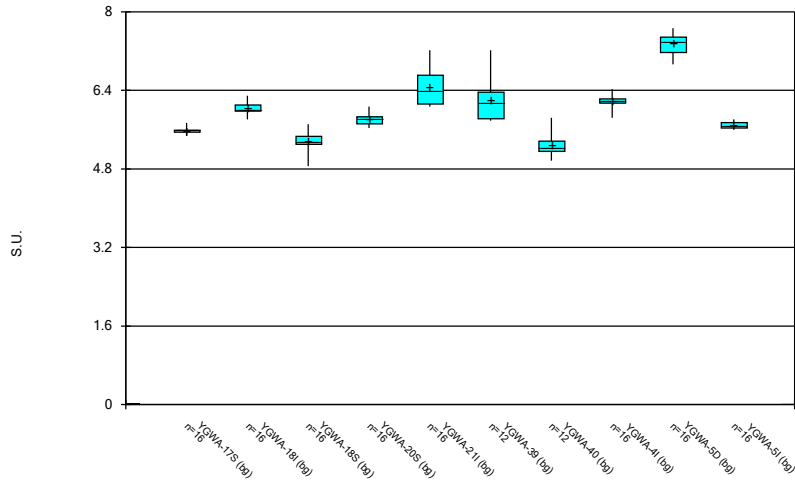
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



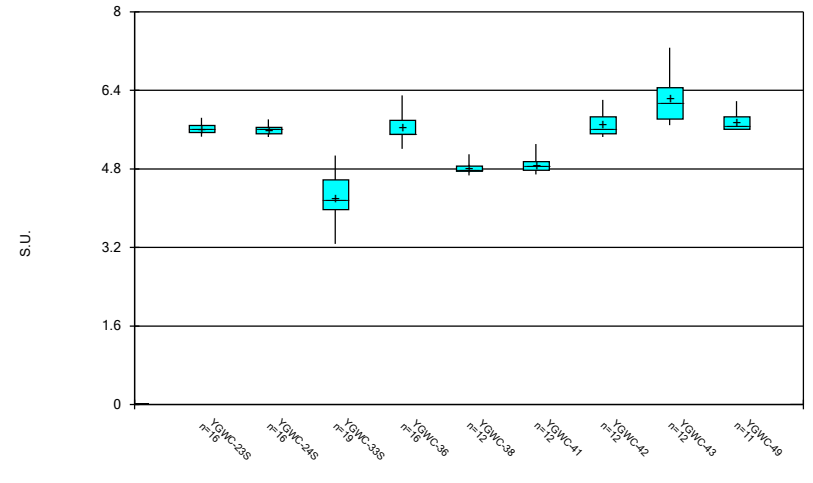
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Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



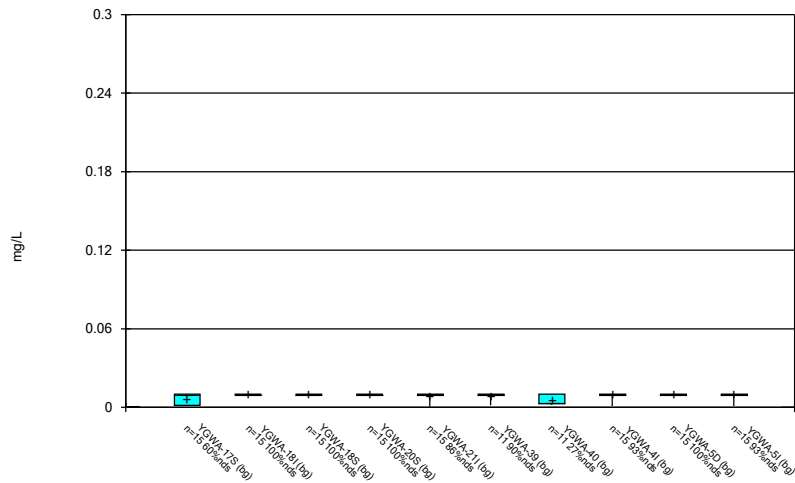
Constituent: pH Analysis Run 5/5/2020 3:24 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



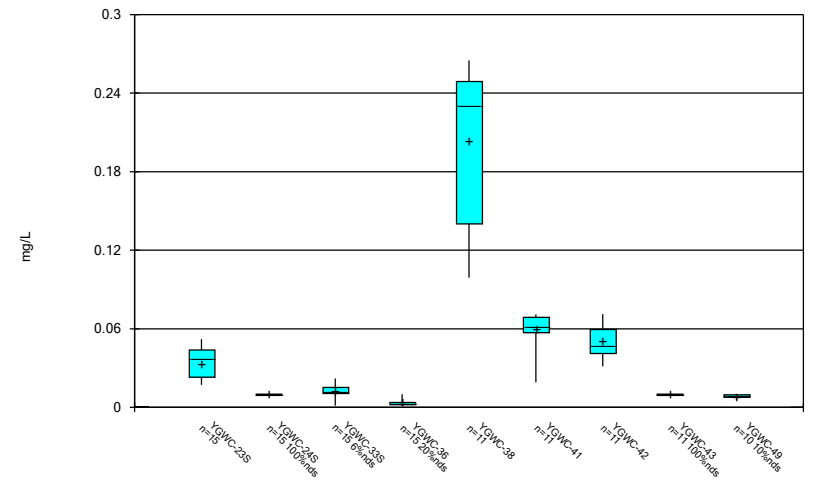
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



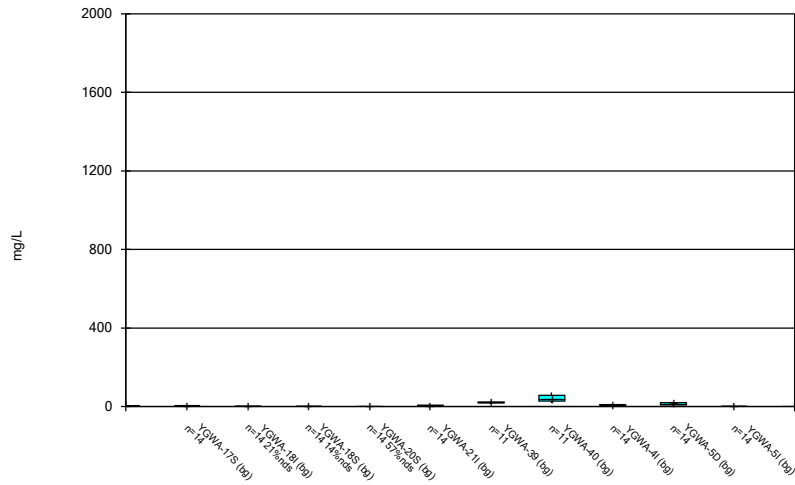
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



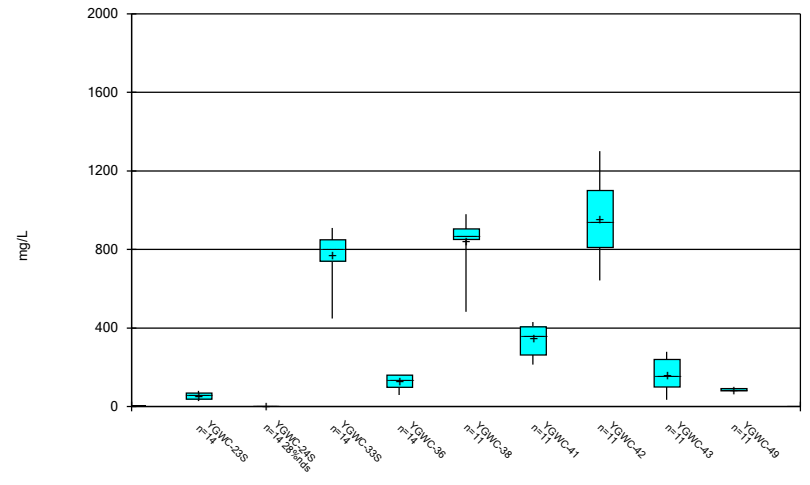
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



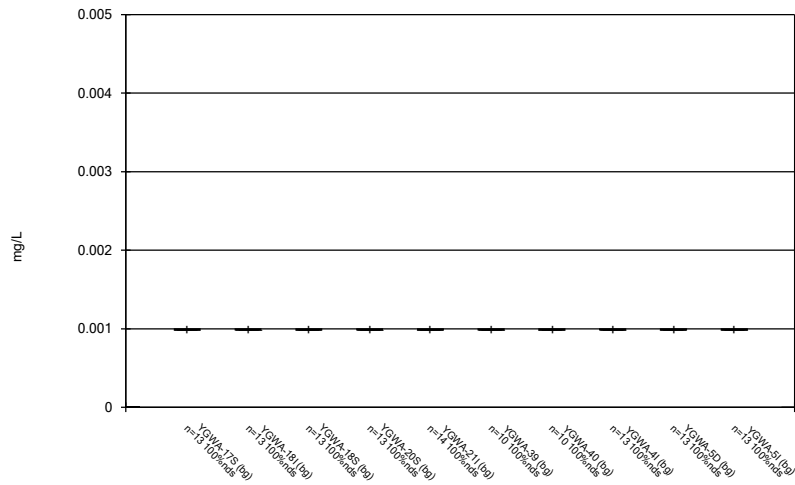
Constituent: Sulfate Analysis Run 5/5/2020 3:24 PM View: Descriptive
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



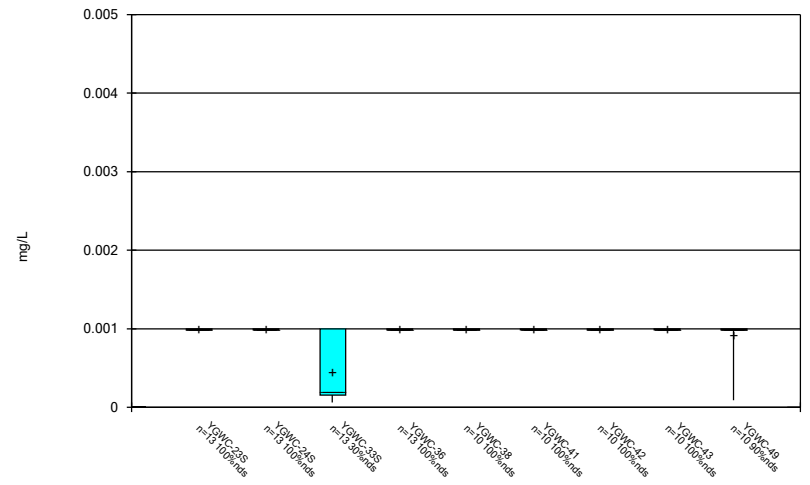
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



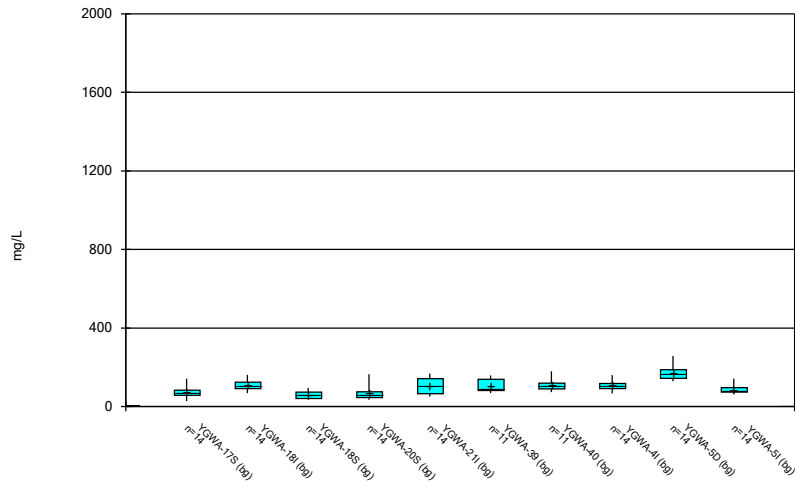
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



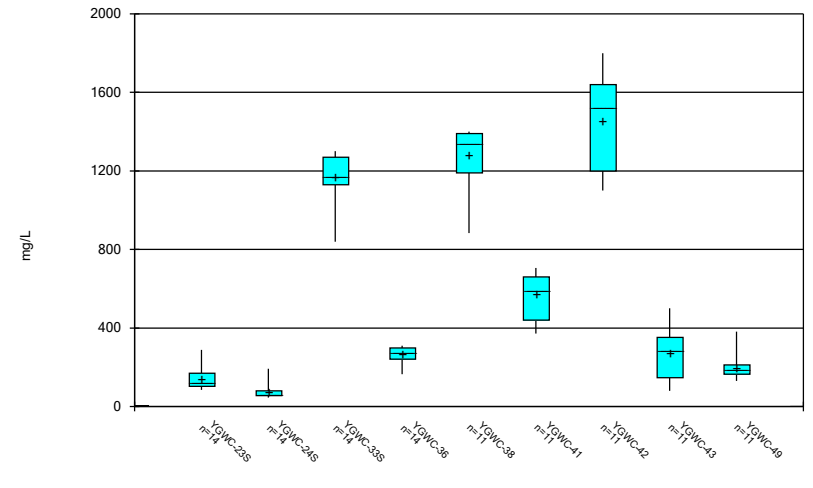
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 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 3:24 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 3:24 PM View: Descriptive
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

FIGURE C.

Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 2:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	YGWC-23S	0.16	n/a	3/26/2020	0.94	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-33S	0.16	n/a	3/25/2020	5.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-38	0.16	n/a	3/25/2020	9.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-41	0.16	n/a	3/25/2020	7.9	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-42	0.16	n/a	3/25/2020	15.5	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-43	0.16	n/a	3/25/2020	2.4	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	3/25/2020	97.8	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-38	37	n/a	3/25/2020	124	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-42	37	n/a	3/25/2020	107	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-33S	7.67	4.86	3/25/2020	3.86	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-33S	71	n/a	3/25/2020	448	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-38	71	n/a	3/25/2020	483	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-41	71	n/a	3/25/2020	214	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-42	71	n/a	3/25/2020	642	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-43	71	n/a	3/25/2020	164	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-49	71	n/a	3/25/2020	76.1	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-33S	185.4	n/a	3/25/2020	839	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-38	185.4	n/a	3/25/2020	883	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-41	185.4	n/a	3/25/2020	428	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-42	185.4	n/a	3/25/2020	1200	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-43	185.4	n/a	3/25/2020	352	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2

Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 2:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	YGWC-23S	0.16	n/a	3/26/2020	0.94	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-24S	0.16	n/a	3/26/2020	0.033	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-33S	0.16	n/a	3/25/2020	5.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-36	0.16	n/a	3/25/2020	0.11	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-38	0.16	n/a	3/25/2020	9.3	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-41	0.16	n/a	3/25/2020	7.9	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-42	0.16	n/a	3/25/2020	15.5	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-43	0.16	n/a	3/25/2020	2.4	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-49	0.16	n/a	3/25/2020	0.012	134	n/a	n/a	43.28	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-23S	37	n/a	3/26/2020	5.6	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-24S	37	n/a	3/26/2020	1.7	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	3/25/2020	97.8	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-36	37	n/a	3/25/2020	10.6	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-38	37	n/a	3/25/2020	124	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-41	37	n/a	3/25/2020	29.6	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-42	37	n/a	3/25/2020	107	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-43	37	n/a	3/25/2020	12.1	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-49	37	n/a	3/25/2020	13.2	134	n/a	n/a	0.7463	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-23S	7.9	n/a	3/26/2020	1.6	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-24S	7.9	n/a	3/26/2020	5.4	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-33S	7.9	n/a	3/25/2020	3.8	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-36	7.9	n/a	3/25/2020	6.3	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-38	7.9	n/a	3/25/2020	4	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-41	7.9	n/a	3/25/2020	2.7	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-42	7.9	n/a	3/25/2020	3.2	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-43	7.9	n/a	3/25/2020	1.8	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-49	7.9	n/a	3/25/2020	4.1	134	n/a	n/a	0	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-23S	0.32	n/a	3/26/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-24S	0.32	n/a	3/26/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-33S	0.32	n/a	3/25/2020	0.25	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-36	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-38	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-41	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-42	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-43	0.32	n/a	3/25/2020	0.073	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-49	0.32	n/a	3/25/2020	0.3ND	152	n/a	n/a	87.5	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-23S	7.67	4.86	3/26/2020	5.69	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-24S	7.67	4.86	3/26/2020	5.51	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-33S	7.67	4.86	3/25/2020	3.86	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-36	7.67	4.86	3/25/2020	5.49	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-38	7.67	4.86	3/25/2020	4.89	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-41	7.67	4.86	3/25/2020	4.87	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-42	7.67	4.86	3/25/2020	5.53	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-43	7.67	4.86	3/25/2020	5.79	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-49	7.67	4.86	3/25/2020	5.69	152	n/a	n/a	0	n/a	n/a	0.0001713	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-23S	71	n/a	3/26/2020	36.5	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-24S	71	n/a	3/26/2020	0.5ND	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-33S	71	n/a	3/25/2020	448	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-36	71	n/a	3/25/2020	58.8	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-38	71	n/a	3/25/2020	483	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

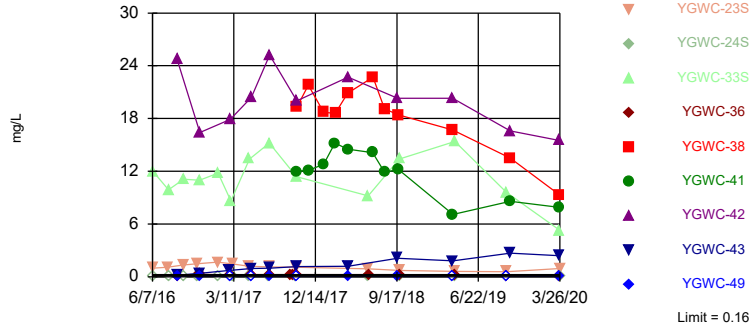
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 2:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Sulfate (mg/L)	YGWC-41	71	n/a	3/25/2020	214	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-42	71	n/a	3/25/2020	642	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-43	71	n/a	3/25/2020	164	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-49	71	n/a	3/25/2020	76.1	134	n/a	n/a	9.701	n/a	n/a	0.00011	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-23S	185.4	n/a	3/26/2020	110	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-24S	185.4	n/a	3/26/2020	67	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-33S	185.4	n/a	3/25/2020	839	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-36	185.4	n/a	3/25/2020	164	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-38	185.4	n/a	3/25/2020	883	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-41	185.4	n/a	3/25/2020	428	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-42	185.4	n/a	3/25/2020	1200	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-43	185.4	n/a	3/25/2020	352	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-49	185.4	n/a	3/25/2020	130	134	9.706	2.032	0	None	sqrt(x)	0.0008358	Param Inter 1 of 2

Sanitas™ v.9.6.25a Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

Exceeds Limit: YGWC-23S, YGWC-33S,
YGWC-38, YGWC-41, YGWC-42, YGWC-43

Prediction Limit
Interwell Non-parametric



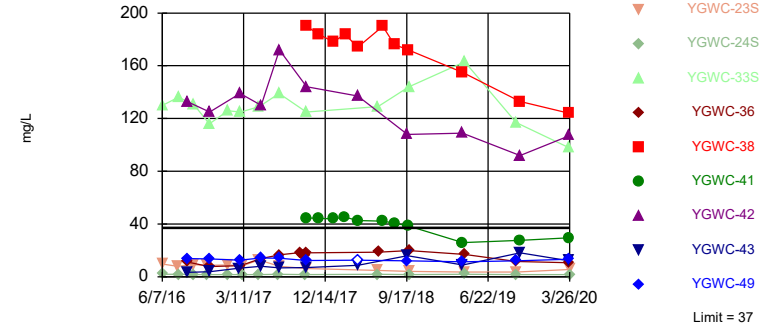
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 134 background values. 43.28% NDs. Annual per-constituent alpha = 0.001979. Individual comparison alpha = 0.00011 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 5/5/2020 2:28 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sanitas™ v.9.6.25a Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

Exceeds Limit: YGWC-33S, YGWC-38,
YGWC-42

Prediction Limit
Interwell Non-parametric



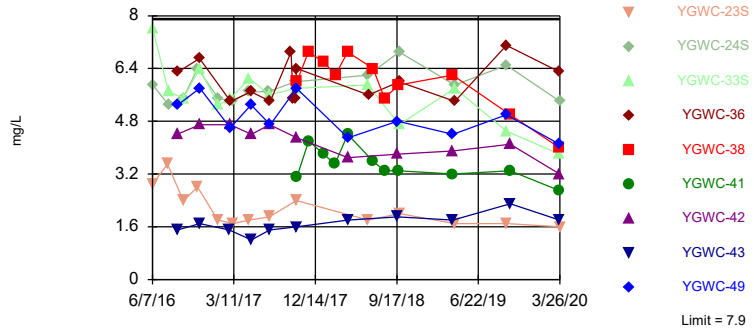
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 134 background values. 0.7463% NDs. Annual per-constituent alpha = 0.001979. Individual comparison alpha = 0.00011 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 5/5/2020 2:28 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sanitas™ v.9.6.25a Sanitas software utilized by Groundwater Stats Consulting, UG

Within Limit

Prediction Limit
Interwell Non-parametric



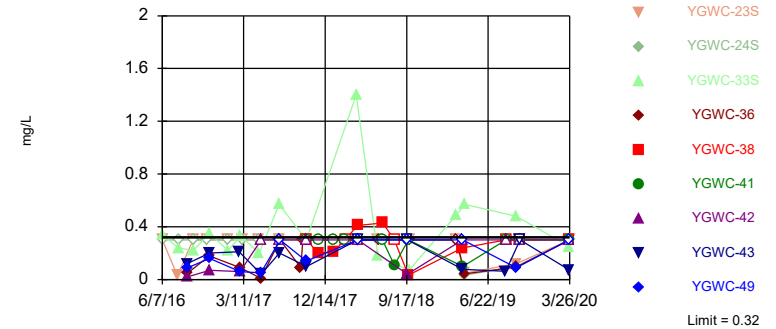
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 134 background values. Annual per-constituent alpha = 0.001979. Individual comparison alpha = 0.00011 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 5/5/2020 2:28 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sanitas™ v.9.6.25a Sanitas software utilized by Groundwater Stats Consulting, UG

Within Limit

Prediction Limit
Interwell Non-parametric

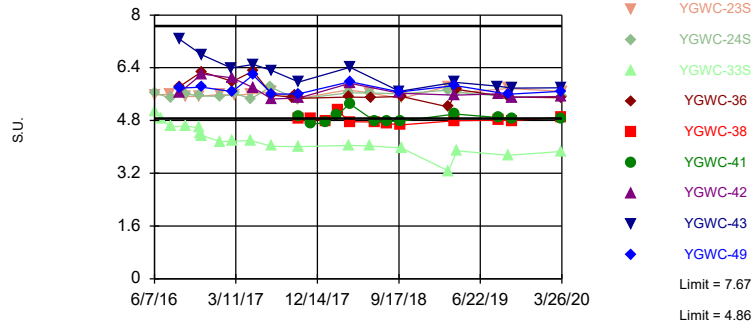


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 152 background values. 87.5% NDs. Annual per-constituent alpha = 0.001541. Individual comparison alpha = 0.00008565 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 5/5/2020 2:28 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Exceeds Limits: YGWC-33S

Prediction Limit
Interwell Non-parametric

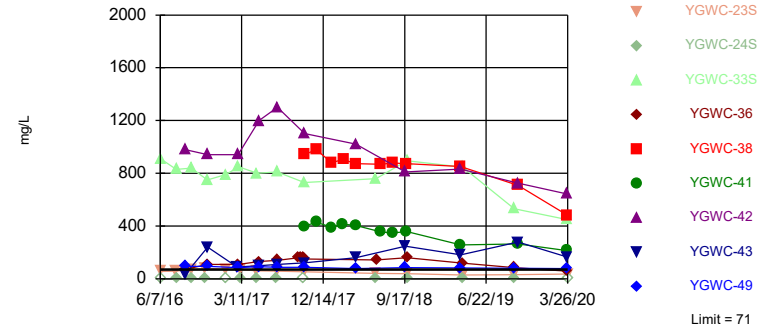


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 152 background values. Annual per-constituent alpha = 0.003081. Individual comparison alpha = 0.0001713 (1 of 2). Comparing 9 points to limit.

Constituent: pH Analysis Run 5/5/2020 2:28 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Exceeds Limit: YGWC-33S, YGWC-38, YGWC-41, YGWC-42, YGWC-43, YGWC-49

Prediction Limit
Interwell Non-parametric

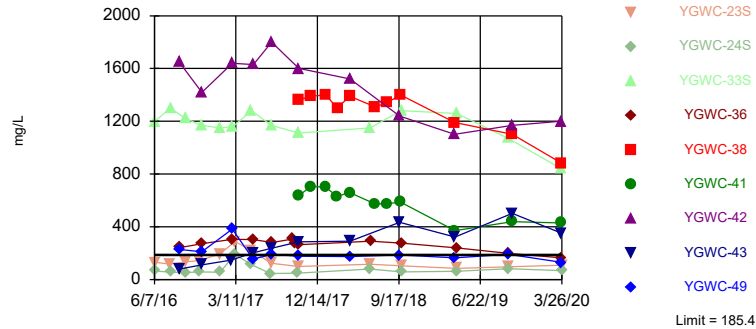


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 134 background values. 9.701% NDs. Annual per-constituent alpha = 0.001979. Individual comparison alpha = 0.00011 (1 of 2). Comparing 9 points to limit.

Constituent: Sulfate Analysis Run 5/5/2020 2:28 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Exceeds Limit: YGWC-33S, YGWC-38, YGWC-41, YGWC-42, YGWC-43

Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=9.706, Std. Dev.=2.032, n=134. Normality test: Chi Squared @alpha = 0.01, calculated = 7.642, critical = 14.07. Kappa = 1.924 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Comparing 9 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 2:28 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
6/2/2016									
6/6/2016									
6/7/2016									
6/8/2016	12	<0.1							
7/26/2016									
7/27/2016									
7/28/2016									
8/1/2016	9.89	<0.1							
8/30/2016			24.7						
8/31/2016				0.169					
9/1/2016					0.0113 (J)				
9/2/2016						0.133			
9/14/2016									
9/16/2016									
9/19/2016									
9/20/2016		<0.1							
9/21/2016	11.1								
11/2/2016									
11/3/2016									
11/4/2016									
11/8/2016		<0.1							
11/14/2016	11							0.287	
11/15/2016					0.0074 (J)				
11/16/2016			16.4	0.406					
1/11/2017									
1/12/2017									
1/13/2017									
1/16/2017									
1/17/2017	11.8	<0.1							
2/24/2017				0.725					
2/27/2017			17.9		<0.1				
2/28/2017								0.215	
3/1/2017	8.61								
3/2/2017									
3/6/2017									
3/7/2017									
3/8/2017		<0.1							
3/9/2017									
4/26/2017									
5/1/2017									
5/2/2017		0.0099 (J)							
5/3/2017	13.4								
5/9/2017					<0.1	0.233			
5/10/2017			20.4	0.955					
6/27/2017									
6/28/2017									
6/29/2017									
7/7/2017		0.0076 (J)							
7/10/2017	15.2								
7/11/2017			25.2	0.994					
7/13/2017					0.0093 (J)	0.262			
9/22/2017						0.238			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
9/29/2017						0.235			
10/3/2017									
10/4/2017									
10/5/2017		<0.1							
10/6/2017						0.256			
10/11/2017	11.4				<0.1	0.245	0.0135 (J)		
10/12/2017			20	1.15				0.0401	19.3
11/20/2017							0.0251 (J)	0.156	21.8
11/21/2017									
1/10/2018								0.15	
1/11/2018							0.0255 (J)		
1/12/2018									18.7
2/19/2018								0.146	
2/20/2018							<0.1		18.6
4/3/2018							0.033 (J)	0.12	20.9
4/4/2018			22.7	1.2	0.0041 (J)				
6/5/2018									
6/6/2018									
6/7/2018									
6/11/2018									
6/12/2018	9.2	0.018 (J)							
6/13/2018						0.25			
6/27/2018									
6/28/2018							0.053	0.16	22.7
8/7/2018							0.024 (J)	0.12	19.1
9/20/2018			20.3	2.1	0.0042 (J)				
9/24/2018							0.028 (J)	0.099	18.4
9/25/2018									
9/26/2018	13.4	0.0055 (J)				0.24			
9/27/2018									
3/26/2019								0.096	
3/27/2019			20.3				0.017 (J)		16.7
3/28/2019				1.8	<0.1				
4/2/2019									
4/3/2019									
4/4/2019	15.4	<0.1				0.22			
9/24/2019									
9/25/2019									
9/26/2019	9.6	0.0068 (J)			<0.1	0.13			
9/27/2019									
10/9/2019			16.6	2.7			0.017 (J)	0.079	13.5
3/24/2020								0.088 (J)	
3/25/2020	5.3		15.5	2.4	0.012 (J)	0.11	0.043 (J)		9.3
3/26/2020		0.033 (J)							

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

6/2/2016
6/6/2016
6/7/2016
6/8/2016
7/26/2016
7/27/2016
7/28/2016
8/1/2016
8/30/2016
8/31/2016
9/1/2016
9/2/2016
9/14/2016
9/16/2016
9/19/2016
9/20/2016
9/21/2016
11/2/2016
11/3/2016
11/4/2016
11/8/2016
11/14/2016
11/15/2016
11/16/2016
1/11/2017
1/12/2017
1/13/2017
1/16/2017
1/17/2017
2/24/2017
2/27/2017
2/28/2017
3/1/2017
3/2/2017
3/6/2017
3/7/2017
3/8/2017
3/9/2017
4/26/2017
5/1/2017
5/2/2017
5/3/2017
5/9/2017
5/10/2017
6/27/2017
6/28/2017
6/29/2017
7/7/2017
7/10/2017
7/11/2017
7/13/2017
9/22/2017

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

9/29/2017	
10/3/2017	
10/4/2017	
10/5/2017	
10/6/2017	
10/11/2017	
10/12/2017	12
11/20/2017	
11/21/2017	12.1
1/10/2018	
1/11/2018	12.8
1/12/2018	
2/19/2018	15.2
2/20/2018	
4/3/2018	14.5
4/4/2018	
6/5/2018	
6/6/2018	
6/7/2018	
6/11/2018	
6/12/2018	
6/13/2018	
6/27/2018	14.1
6/28/2018	
8/7/2018	11.9
9/20/2018	
9/24/2018	12.2
9/25/2018	
9/26/2018	
9/27/2018	
3/26/2019	
3/27/2019	
3/28/2019	7.1
4/2/2019	
4/3/2019	
4/4/2019	
9/24/2019	
9/25/2019	
9/26/2019	
9/27/2019	
10/9/2019	8.6
3/24/2020	
3/25/2020	7.9
3/26/2020	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
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							
8/30/2016			133						
8/31/2016				3.4					
9/1/2016					13.9				
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			
11/15/2016					13.5				
11/16/2016			125	3.79					
1/11/2017									
1/12/2017									
1/13/2017									
1/16/2017									
1/17/2017	126	1.7							
2/24/2017				6.42					
2/27/2017			139		12.5				
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					14.4	13.9			
5/10/2017			130	7.9					
6/27/2017									
6/28/2017									
6/29/2017									
7/7/2017		1.8							
7/10/2017	139								
7/11/2017			172	6.71					
7/13/2017					14.1	16.6			
9/22/2017						18.4			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
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				12.4	18.1	2.74		
10/12/2017			144	7.05				2.9	190
11/20/2017							1.81	10.4	184
11/21/2017									
1/10/2018								10.2	
1/11/2018							1.54		
1/12/2018									178
2/19/2018								<25	
2/20/2018							1.71		184
4/3/2018							1.4	6.3	174
4/4/2018			137	8.6	<25				
6/5/2018									
6/6/2018									
6/7/2018									
6/11/2018									
6/12/2018	129	1.8							
6/13/2018						18.7 (J)			
6/27/2018									
6/28/2018							1.4	6.7	190
8/7/2018							1.2	6.3	176
9/20/2018			108	15.9 (J)	12 (J)				
9/24/2018							1.1	5.7	172
9/25/2018									
9/26/2018	144	1.7				19.8 (J)			
9/27/2018									
3/26/2019								5.6	
3/27/2019			109				1.5		155
3/28/2019				8.9	11.3 (J)				
4/2/2019									
4/3/2019									
4/4/2019	163	1.9				16.9 (J)			
9/24/2019									
9/25/2019									
9/26/2019	117	1.7			12.1	11.7			
9/27/2019									
10/9/2019			92	18.2			2.4	4.9	133
3/24/2020								4.8	
3/25/2020	97.8		107	12.1	13.2	10.6	2.7		124
3/26/2020		1.7							

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

6/2/2016
6/6/2016
6/7/2016
6/8/2016
7/26/2016
7/27/2016
7/28/2016
8/1/2016
8/30/2016
8/31/2016
9/1/2016
9/2/2016
9/14/2016
9/16/2016
9/19/2016
9/20/2016
9/21/2016
11/2/2016
11/3/2016
11/4/2016
11/8/2016
11/14/2016
11/15/2016
11/16/2016
1/11/2017
1/12/2017
1/13/2017
1/16/2017
1/17/2017
2/24/2017
2/27/2017
2/28/2017
3/1/2017
3/2/2017
3/6/2017
3/7/2017
3/8/2017
3/9/2017
4/26/2017
5/1/2017
5/2/2017
5/3/2017
5/9/2017
5/10/2017
6/27/2017
6/28/2017
6/29/2017
7/7/2017
7/10/2017
7/11/2017
7/13/2017
9/22/2017

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

9/29/2017	
10/3/2017	
10/4/2017	
10/5/2017	
10/6/2017	
10/11/2017	
10/12/2017	44.5
11/20/2017	
11/21/2017	44.4
1/10/2018	
1/11/2018	43.9
1/12/2018	
2/19/2018	45.3
2/20/2018	
4/3/2018	42.7
4/4/2018	
6/5/2018	
6/6/2018	
6/7/2018	
6/11/2018	
6/12/2018	
6/13/2018	
6/27/2018	42.2
6/28/2018	
8/7/2018	40.7
9/20/2018	
9/24/2018	38.5
9/25/2018	
9/26/2018	
9/27/2018	
3/26/2019	
3/27/2019	
3/28/2019	26
4/2/2019	
4/3/2019	
4/4/2019	
9/24/2019	
9/25/2019	
9/26/2019	
9/27/2019	
10/9/2019	27.6
3/24/2020	
3/25/2020	29.6
3/26/2020	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
6/2/2016									
6/6/2016									
6/7/2016									
6/8/2016	7.6	5.9							
7/26/2016									
7/27/2016									
7/28/2016									
8/1/2016	5.7	5.3							
8/30/2016			4.4						
8/31/2016				1.5					
9/1/2016					5.3				
9/2/2016						6.3			
9/14/2016									
9/16/2016									
9/19/2016									
9/20/2016		5.5							
9/21/2016	5.5								
11/2/2016									
11/3/2016									
11/4/2016									
11/8/2016		6.4							
11/14/2016	6.4					6.7			
11/15/2016					5.8				
11/16/2016			4.7	1.7					
1/11/2017									
1/12/2017									
1/13/2017									
1/16/2017									
1/17/2017	5.3	5.5							
2/24/2017				1.5					
2/27/2017			4.7		4.6				
2/28/2017						5.4			
3/1/2017	5.5								
3/2/2017									
3/6/2017									
3/7/2017									
3/8/2017		5.4							
3/9/2017									
4/26/2017									
5/1/2017									
5/2/2017		5.7							
5/3/2017	6.1								
5/9/2017					5.3	5.7			
5/10/2017			4.4	1.2					
6/27/2017									
6/28/2017									
6/29/2017									
7/7/2017		5.7							
7/10/2017	5.6								
7/11/2017			4.7	1.5					
7/13/2017					4.7	5.4			
9/22/2017						6.9			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
9/29/2017						5.5			
10/3/2017									
10/4/2017									
10/5/2017		6							
10/6/2017						5.5			
10/11/2017	5.8				5.8	6.4	2.4		
10/12/2017			4.3	1.6				3.8	6
11/20/2017							1.8	4.4	6.9
11/21/2017									
1/10/2018								4.6	
1/11/2018							1.6		
1/12/2018									6.6
2/19/2018								4.6	
2/20/2018							2		6.2
4/3/2018							3.3	5.9	6.9
4/4/2018			3.7	1.8	4.3				
6/5/2018									
6/6/2018									
6/7/2018									
6/11/2018									
6/12/2018	5.9	6.2							
6/13/2018						5.6			
6/27/2018									
6/28/2018							2.1	5	6.4
8/7/2018							1.2	4.3	5.5
9/20/2018			3.8	1.9	4.8				
9/24/2018							1.3	4.9	5.9
9/25/2018									
9/26/2018	4.7	6.9				6			
9/27/2018									
3/26/2019								4.4	
3/27/2019			3.9				1.4		6.2
3/28/2019				1.8	4.4				
4/2/2019									
4/3/2019									
4/4/2019	5.8	5.9				5.4			
9/24/2019									
9/25/2019									
9/26/2019	4.5	6.5			5	7.1			
9/27/2019									
10/9/2019			4.1	2.3			2.1	5.1	5
3/24/2020								4.7	
3/25/2020	3.8		3.2	1.8	4.1	6.3	1.9		4
3/26/2020		5.4							

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

6/2/2016
6/6/2016
6/7/2016
6/8/2016
7/26/2016
7/27/2016
7/28/2016
8/1/2016
8/30/2016
8/31/2016
9/1/2016
9/2/2016
9/14/2016
9/16/2016
9/19/2016
9/20/2016
9/21/2016
11/2/2016
11/3/2016
11/4/2016
11/8/2016
11/14/2016
11/15/2016
11/16/2016
1/11/2017
1/12/2017
1/13/2017
1/16/2017
1/17/2017
2/24/2017
2/27/2017
2/28/2017
3/1/2017
3/2/2017
3/6/2017
3/7/2017
3/8/2017
3/9/2017
4/26/2017
5/1/2017
5/2/2017
5/3/2017
5/9/2017
5/10/2017
6/27/2017
6/28/2017
6/29/2017
7/7/2017
7/10/2017
7/11/2017
7/13/2017
9/22/2017

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

9/29/2017	
10/3/2017	
10/4/2017	
10/5/2017	
10/6/2017	
10/11/2017	
10/12/2017	3.1
11/20/2017	
11/21/2017	4.2
1/10/2018	
1/11/2018	3.8
1/12/2018	
2/19/2018	3.5
2/20/2018	
4/3/2018	4.4
4/4/2018	
6/5/2018	
6/6/2018	
6/7/2018	
6/11/2018	
6/12/2018	
6/13/2018	
6/27/2018	3.6
6/28/2018	
8/7/2018	3.3
9/20/2018	
9/24/2018	3.3
9/25/2018	
9/26/2018	
9/27/2018	
3/26/2019	
3/27/2019	
3/28/2019	3.2
4/2/2019	
4/3/2019	
4/4/2019	
9/24/2019	
9/25/2019	
9/26/2019	
9/27/2019	
10/9/2019	3.3
3/24/2020	
3/25/2020	2.7
3/26/2020	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWC-23S	YGWA-21I (bg)	YGWA-20S (bg)
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		
10/12/2017									
11/20/2017									
11/21/2017									
1/10/2018									
1/11/2018									
1/12/2018									
2/19/2018									
2/20/2018									
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		
4/3/2018									
4/4/2018									
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									
6/27/2018									
6/28/2018									
8/7/2018									
9/20/2018									
9/24/2018									
9/25/2018				<0.3	<0.3	<0.3		0 (J)	<0.3
9/26/2018	<0.3	<0.3	<0.3						
9/27/2018							<0.3		
3/4/2019	<0.3	0.19 (J)	<0.3						
3/5/2019				<0.3		<0.3		0.32	<0.3
3/6/2019					<0.3		<0.3		
3/26/2019									
3/27/2019									
3/28/2019									
4/2/2019						<0.3		0.12 (J)	
4/3/2019	<0.3	0.047 (J)	<0.3	<0.3	<0.3				<0.3
4/4/2019							0.049 (J)		
8/21/2019									
8/22/2019									
9/24/2019	<0.3	0.05 (J)						0.15 (J)	
9/25/2019			<0.3			<0.3			<0.3
9/26/2019				<0.3	<0.3				
9/27/2019							0.12 (J)		
10/9/2019									
3/24/2020	<0.3	<0.3		<0.3	<0.3	<0.3		0.081 (J)	<0.3
3/25/2020			<0.3						
3/26/2020							<0.3		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 2:50 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWC-38	YGWC-41
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							
8/30/2016			0.02 (J)						
8/31/2016				0.12 (J)					
9/1/2016					0.09 (J)				
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)	
11/15/2016					0.16 (J)				
11/16/2016			0.07 (J)	0.2 (J)					
1/11/2017									
1/12/2017									
1/13/2017									
1/16/2017									
1/17/2017	0.22 (J)	<0.3							
2/24/2017				0.21 (J)					
2/27/2017			0.06 (J)		0.06 (J)				
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					0.05 (J)	0.009 (J)			
5/10/2017			<0.3	0.04 (J)					
6/27/2017									
6/28/2017									
6/29/2017									
7/7/2017		<0.3							
7/10/2017	0.57								
7/11/2017			<0.3	0.2 (J)					
7/13/2017					<0.3	<0.3			
9/22/2017								0.09 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWC-38	YGWC-41
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				0.14 (J)	<0.3	<0.3		
10/12/2017			<0.3	0.1 (J)				<0.3	<0.3
11/20/2017							<0.3	0.2 (J)	
11/21/2017									<0.3
1/10/2018									
1/11/2018							<0.3		<0.3
1/12/2018								0.21 (J)	
2/19/2018									<0.3
2/20/2018							0.23	<0.3	
3/28/2018									
3/29/2018									
3/30/2018	1.4	<0.3				<0.3			
4/3/2018							<0.3	0.41	<0.3
4/4/2018			<0.3	<0.3	<0.3				
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			
6/27/2018									<0.3
6/28/2018							<0.3	0.43	
8/7/2018							0.048 (J)	<0.3	0.11 (J)
9/20/2018			0.041 (J)	<0.3	<0.3				
9/24/2018							<0.3	0.034 (J)	<0.3
9/25/2018									
9/26/2018	0.07 (J)	<0.3				<0.3			
9/27/2018									
3/4/2019									
3/5/2019		<0.3							
3/6/2019	0.49					<0.3			
3/26/2019									
3/27/2019			<0.3				<0.3	0.24 (J)	
3/28/2019				0.078 (J)	<0.3				0.1 (J)
4/2/2019									
4/3/2019									
4/4/2019	0.57	0.033 (J)				0.043 (J)			
8/21/2019				0.062 (J)			<0.3		
8/22/2019			<0.3					<0.3	<0.3
9/24/2019									
9/25/2019									
9/26/2019	0.48	0.098 (J)			0.09 (J)	0.094 (J)			
9/27/2019									
10/9/2019			<0.3	<0.3			<0.3	<0.3	<0.3
3/24/2020									
3/25/2020	0.25 (J)		<0.3	0.073 (J)	<0.3	<0.3	<0.3	<0.3	<0.3
3/26/2020		<0.3							

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWA-40 (bg)

6/2/2016
6/6/2016
6/7/2016
6/8/2016
7/26/2016
7/27/2016
7/28/2016
8/1/2016
8/30/2016
8/31/2016
9/1/2016
9/2/2016
9/14/2016
9/16/2016
9/19/2016
9/20/2016
9/21/2016
11/2/2016
11/3/2016
11/4/2016
11/8/2016
11/14/2016
11/15/2016
11/16/2016
1/11/2017
1/12/2017
1/13/2017
1/16/2017
1/17/2017
2/24/2017
2/27/2017
2/28/2017
3/1/2017
3/2/2017
3/6/2017
3/7/2017
3/8/2017
3/9/2017
4/26/2017
5/1/2017
5/2/2017
5/3/2017
5/9/2017
5/10/2017
6/27/2017
6/28/2017
6/29/2017
7/7/2017
7/10/2017
7/11/2017
7/13/2017
9/22/2017

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWA-40 (bg)

9/29/2017	
10/3/2017	
10/4/2017	
10/5/2017	
10/6/2017	
10/11/2017	
10/12/2017	<0.3
11/20/2017	<0.3
11/21/2017	
1/10/2018	<0.3
1/11/2018	
1/12/2018	
2/19/2018	<0.3
2/20/2018	
3/28/2018	
3/29/2018	
3/30/2018	
4/3/2018	<0.3
4/4/2018	
6/5/2018	
6/6/2018	
6/7/2018	
6/11/2018	
6/12/2018	
6/13/2018	
6/27/2018	
6/28/2018	<0.3
8/7/2018	<0.3
9/20/2018	
9/24/2018	<0.3
9/25/2018	
9/26/2018	
9/27/2018	
3/4/2019	
3/5/2019	
3/6/2019	
3/26/2019	<0.3
3/27/2019	
3/28/2019	
4/2/2019	
4/3/2019	
4/4/2019	
8/21/2019	<0.3
8/22/2019	
9/24/2019	
9/25/2019	
9/26/2019	
9/27/2019	
10/9/2019	<0.3
3/24/2020	<0.3
3/25/2020	
3/26/2020	

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/5/2020 2:51 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWA-5I (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-21I (bg)	YGWC-23S	YGWA-20S (bg)
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017	5.79		7.48				6.56		
10/4/2017					5.32	5.57			5.83
10/5/2017		6.16		6.11					
10/6/2017									
10/11/2017								5.46	
10/12/2017									
11/20/2017									
11/21/2017									
1/10/2018									
1/11/2018									
1/12/2018									
2/19/2018									
2/20/2018									
3/28/2018				6.1	5.34	5.59			
3/29/2018	5.63	6.09	7.02				6.75		5.93
3/30/2018								5.73	
4/3/2018									
4/4/2018									
6/5/2018							6.09		
6/6/2018			7.43						5.86
6/7/2018	5.63	6.12		5.98					
6/11/2018					5.28	5.58			
6/12/2018								5.63	
6/13/2018									
6/27/2018									
6/28/2018									
8/7/2018									
9/20/2018									
9/24/2018									
9/25/2018				5.81	4.86	5.59	6.67		5.84
9/26/2018	5.63	5.84	7.13						
9/27/2018								5.47	
3/4/2019	5.75	6.18	7.46						
3/5/2019					5.26	5.48	7.22		6.07
3/6/2019				5.99				5.84	
3/26/2019									
3/27/2019									
3/28/2019									
4/2/2019						5.74	6.94		
4/3/2019	5.63	6.43	7.11	6.29	5.47				5.71
4/4/2019								5.64	
8/21/2019									
8/22/2019									
9/24/2019	5.6		6.93				6.87		
9/25/2019		6.2				5.49			5.86
9/26/2019				6.04	5.2				
9/27/2019								5.77	
10/9/2019									
3/24/2020	5.81		7.34	5.98	5.33	5.57	6.35		5.86

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/5/2020 2:51 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-41
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							
8/30/2016			5.64						
8/31/2016				7.27					
9/1/2016					5.78				
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			
11/15/2016					5.81				
11/16/2016			6.21	6.79					
1/11/2017									
1/12/2017									
1/13/2017									
1/16/2017									
1/17/2017	4.16	5.53							
2/24/2017				6.39					
2/27/2017			6.09		5.68				
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					6.18	6.3			
5/10/2017			5.79	6.5					
6/27/2017									
6/28/2017									
6/29/2017									
7/7/2017		5.81							
7/10/2017	4.02								
7/11/2017			5.45	6.32					

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-41
3/25/2020	3.86		5.53	5.79	5.69	5.49	5.78		4.87
3/26/2020		5.51							

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-38

6/2/2016
6/6/2016
6/7/2016
6/8/2016
6/28/2016
7/26/2016
7/27/2016
7/28/2016
8/1/2016
8/30/2016
8/31/2016
9/1/2016
9/2/2016
9/14/2016
9/16/2016
9/19/2016
9/20/2016
9/21/2016
11/2/2016
11/3/2016
11/4/2016
11/8/2016
11/10/2016
11/14/2016
11/15/2016
11/16/2016
1/11/2017
1/12/2017
1/13/2017
1/16/2017
1/17/2017
2/24/2017
2/27/2017
2/28/2017
3/1/2017
3/2/2017
3/6/2017
3/7/2017
3/8/2017
3/9/2017
4/26/2017
5/1/2017
5/2/2017
5/3/2017
5/9/2017
5/10/2017
6/27/2017
6/28/2017
6/29/2017
7/7/2017
7/10/2017
7/11/2017

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-38

7/13/2017	
9/22/2017	
9/29/2017	
10/3/2017	
10/4/2017	
10/5/2017	
10/6/2017	
10/11/2017	
10/12/2017	4.85
11/20/2017	4.87
11/21/2017	
1/10/2018	
1/11/2018	
1/12/2018	4.78
2/19/2018	
2/20/2018	5.1
3/28/2018	
3/29/2018	
3/30/2018	
4/3/2018	4.76
4/4/2018	
6/5/2018	
6/6/2018	
6/7/2018	
6/11/2018	
6/12/2018	
6/13/2018	
6/27/2018	
6/28/2018	4.75
8/7/2018	4.72
9/20/2018	
9/24/2018	4.67
9/25/2018	
9/26/2018	
9/27/2018	
3/4/2019	
3/5/2019	
3/6/2019	
3/26/2019	
3/27/2019	4.79
3/28/2019	
4/2/2019	
4/3/2019	
4/4/2019	
8/21/2019	
8/22/2019	4.81
9/24/2019	
9/25/2019	
9/26/2019	
9/27/2019	
10/9/2019	4.8
3/24/2020	

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-38

3/25/2020 4.89
3/26/2020

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
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							
8/30/2016			980						
8/31/2016				34					
9/1/2016					95				
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			
11/15/2016					94				
11/16/2016			940	240					
1/11/2017									
1/12/2017									
1/13/2017									
1/16/2017									
1/17/2017	790	<1							
2/24/2017				89					
2/27/2017			940		84				
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					91	130			
5/10/2017			1200	100					
6/27/2017									
6/28/2017									
6/29/2017									
7/7/2017		0.37 (J)							
7/10/2017	810								
7/11/2017			1300	110					
7/13/2017					88	140			
9/22/2017						160			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
9/29/2017						160			
10/3/2017									
10/4/2017									
10/5/2017		<1							
10/6/2017						160			
10/11/2017	730				86	150	20		
10/12/2017			1100	120				17	940
11/20/2017							24	71	980
11/21/2017									
1/10/2018								66	
1/11/2018							23		
1/12/2018									880
2/19/2018								57.2	
2/20/2018							20.6		905
4/3/2018							24.5	49.4	872
4/4/2018			1020	160	76.5				
6/5/2018									
6/6/2018									
6/7/2018									
6/11/2018									
6/12/2018	759	0.35 (J)							
6/13/2018						144			
6/27/2018									
6/28/2018							22	43.8	869
8/7/2018							20.7	40.5	879
9/20/2018			810	247	84.1				
9/24/2018							21.2	39.7	872
9/25/2018									
9/26/2018	895	0.28 (J)				160			
9/27/2018									
3/26/2019								34.3	
3/27/2019			831				17.7		851
3/28/2019				181	82.8				
4/2/2019									
4/3/2019									
4/4/2019	847	0.29 (J)				119			
9/24/2019									
9/25/2019									
9/26/2019	532	0.23 (J)			80	84.8			
9/27/2019									
10/9/2019			725	279			15	27.9	708
3/24/2020								25.2	
3/25/2020	448		642	164	76.1	58.8	14.3		483
3/26/2020		<1							

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

6/2/2016
6/6/2016
6/7/2016
6/8/2016
7/26/2016
7/27/2016
7/28/2016
8/1/2016
8/30/2016
8/31/2016
9/1/2016
9/2/2016
9/14/2016
9/16/2016
9/19/2016
9/20/2016
9/21/2016
11/2/2016
11/3/2016
11/4/2016
11/8/2016
11/14/2016
11/15/2016
11/16/2016
1/11/2017
1/12/2017
1/13/2017
1/16/2017
1/17/2017
2/24/2017
2/27/2017
2/28/2017
3/1/2017
3/2/2017
3/6/2017
3/7/2017
3/8/2017
3/9/2017
4/26/2017
5/1/2017
5/2/2017
5/3/2017
5/9/2017
5/10/2017
6/27/2017
6/28/2017
6/29/2017
7/7/2017
7/10/2017
7/11/2017
7/13/2017
9/22/2017

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

9/29/2017	
10/3/2017	
10/4/2017	
10/5/2017	
10/6/2017	
10/11/2017	
10/12/2017	400
11/20/2017	
11/21/2017	430
1/10/2018	
1/11/2018	390
1/12/2018	
2/19/2018	414
2/20/2018	
4/3/2018	406
4/4/2018	
6/5/2018	
6/6/2018	
6/7/2018	
6/11/2018	
6/12/2018	
6/13/2018	
6/27/2018	357
6/28/2018	
8/7/2018	346
9/20/2018	
9/24/2018	358
9/25/2018	
9/26/2018	
9/27/2018	
3/26/2019	
3/27/2019	
3/28/2019	258
4/2/2019	
4/3/2019	
4/4/2019	
9/24/2019	
9/25/2019	
9/26/2019	
9/27/2019	
10/9/2019	263
3/24/2020	
3/25/2020	214
3/26/2020	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
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							
8/30/2016			1650						
8/31/2016				80					
9/1/2016					228				
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			
11/15/2016					211				
11/16/2016			1420	112					
1/11/2017									
1/12/2017									
1/13/2017									
1/16/2017									
1/17/2017	1150	56							
2/24/2017				147					
2/27/2017			1640		382				
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					154	303			
5/10/2017			1630	203					
6/27/2017									
6/28/2017									
6/29/2017									
7/7/2017		46							
7/10/2017	1170								
7/11/2017			1800	238					
7/13/2017					192	282			
9/22/2017						309			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

	YGWC-33S	YGWC-24S	YGWC-42	YGWC-43	YGWC-49	YGWC-36	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-38
9/29/2017						273			
10/3/2017									
10/4/2017									
10/5/2017		48							
10/6/2017						287			
10/11/2017	1110				177	264	68		
10/12/2017			1600	287				74	1360
11/20/2017							139	179	1390
11/21/2017									
1/10/2018								140	
1/11/2018							153		
1/12/2018									1400
2/19/2018								119	
2/20/2018							87		1300
4/3/2018							85	106	1390
4/4/2018			1520	292	174				
6/5/2018									
6/6/2018									
6/7/2018									
6/11/2018									
6/12/2018	1150	79							
6/13/2018						292			
6/27/2018									
6/28/2018							88	112	1310
8/7/2018							89	103	1340
9/20/2018			1240	434	186				
9/24/2018							82	107	1400
9/25/2018									
9/26/2018	1280	59				277			
9/27/2018									
3/26/2019								90	
3/27/2019			1100				75		1190
3/28/2019				323	164				
4/2/2019									
4/3/2019									
4/4/2019	1260	63				240			
9/24/2019									
9/25/2019									
9/26/2019	1070	81			192	198			
9/27/2019									
10/9/2019			1170	501			119	98	1100
3/24/2020								84	
3/25/2020	839		1200	352	130	164	158		883
3/26/2020		67							

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

6/2/2016
6/6/2016
6/7/2016
6/8/2016
7/26/2016
7/27/2016
7/28/2016
8/1/2016
8/30/2016
8/31/2016
9/1/2016
9/2/2016
9/14/2016
9/16/2016
9/19/2016
9/20/2016
9/21/2016
11/2/2016
11/3/2016
11/4/2016
11/8/2016
11/14/2016
11/15/2016
11/16/2016
1/11/2017
1/12/2017
1/13/2017
1/16/2017
1/17/2017
2/24/2017
2/27/2017
2/28/2017
3/1/2017
3/2/2017
3/6/2017
3/7/2017
3/8/2017
3/9/2017
4/26/2017
5/1/2017
5/2/2017
5/3/2017
5/9/2017
5/10/2017
6/27/2017
6/28/2017
6/29/2017
7/7/2017
7/10/2017
7/11/2017
7/13/2017
9/22/2017

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/5/2020 2:51 PM View: PL's
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

YGWC-41

9/29/2017	
10/3/2017	
10/4/2017	
10/5/2017	
10/6/2017	
10/11/2017	
10/12/2017	636
11/20/2017	
11/21/2017	706
1/10/2018	
1/11/2018	701
1/12/2018	
2/19/2018	630
2/20/2018	
4/3/2018	660
4/4/2018	
6/5/2018	
6/6/2018	
6/7/2018	
6/11/2018	
6/12/2018	
6/13/2018	
6/27/2018	575
6/28/2018	
8/7/2018	574
9/20/2018	
9/24/2018	588
9/25/2018	
9/26/2018	
9/27/2018	
3/26/2019	
3/27/2019	
3/28/2019	372
4/2/2019	
4/3/2019	
4/4/2019	
9/24/2019	
9/25/2019	
9/26/2019	
9/27/2019	
10/9/2019	440
3/24/2020	
3/25/2020	428
3/26/2020	

FIGURE D.

Trend Test Summary - Significant Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWC-43	0.6477	51	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-211 (bg)	2.207	53	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-38	-25.87	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-18S (bg)	-0.08453	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-211 (bg)	0.2542	65	58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-39 (bg)	-0.3058	-47	-38	Yes	12	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-5D (bg)	-0.1483	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWC-33S	-0.3435	-147	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-17S (bg)	0.2314	52	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-40 (bg)	-17.01	-35	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-4l (bg)	0.3067	53	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5D (bg)	-4.378	-68	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5l (bg)	0.1217	55	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-38	-102.7	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-41	-85.6	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-49	-4.89	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-41	-120.9	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-43	131	49	34	Yes	11	0	n/a	n/a	0.01	NP

Trend Test Summary - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWA-17S (bg)	-0.0002523	-8	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18I (bg)	0	-30	-48	No	14	78.57	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18S (bg)	-0.0003116	-11	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-20S (bg)	0	-5	-48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-21I (bg)	-0.00632	-39	-48	No	14	64.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-39 (bg)	0.002401	6	34	No	11	9.091	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-40 (bg)	-0.0315	-24	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-4I (bg)	0	-15	-48	No	14	64.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5D (bg)	0.0006887	26	48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5I (bg)	0	-33	-48	No	14	64.29	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-23S	-0.2383	-46	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-33S	-0.09196	-2	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-38	-3.784	-33	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-41	-2.225	-21	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-42	-1.254	-14	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-43	0.6477	51	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-17S (bg)	0.1071	40	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-18I (bg)	0.01475	6	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-18S (bg)	-0.08778	-40	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-20S (bg)	0.1183	41	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-21I (bg)	2.207	53	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-39 (bg)	-0.23	-10	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-40 (bg)	-1.297	-28	-34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-4I (bg)	0.4896	40	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5D (bg)	-2.47	-43	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5I (bg)	0.06941	26	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-33S	-1.161	-7	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-38	-25.87	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-42	-11.17	-23	-34	No	11	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-17S (bg)	-0.00607	-22	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-18I (bg)	-0.0211	-21	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-18S (bg)	-0.08453	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-20S (bg)	0.03732	48	58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-21I (bg)	0.2542	65	58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-39 (bg)	-0.3058	-47	-38	Yes	12	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-40 (bg)	0.02308	2	38	No	12	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-4I (bg)	-0.01041	-14	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-5D (bg)	-0.1483	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWA-5I (bg)	-0.0216	-25	-58	No	16	0	n/a	n/a	0.01	NP
pH (S.U.)	YGWC-33S	-0.3435	-147	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-17S (bg)	0.2314	52	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18I (bg)	-0.2926	-34	-48	No	14	21.43	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18S (bg)	-0.2179	-38	-48	No	14	14.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-20S (bg)	0	12	48	No	14	57.14	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-21I (bg)	-0.3724	-11	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-39 (bg)	-3.919	-27	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-40 (bg)	-17.01	-35	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-4I (bg)	0.3067	53	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5D (bg)	-4.378	-68	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-5I (bg)	0.1217	55	48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-33S	-76.07	-31	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-38	-102.7	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-41	-85.6	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-42	-94.68	-26	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWC-43	49.2	33	34	No	11	0	n/a	n/a	0.01	NP

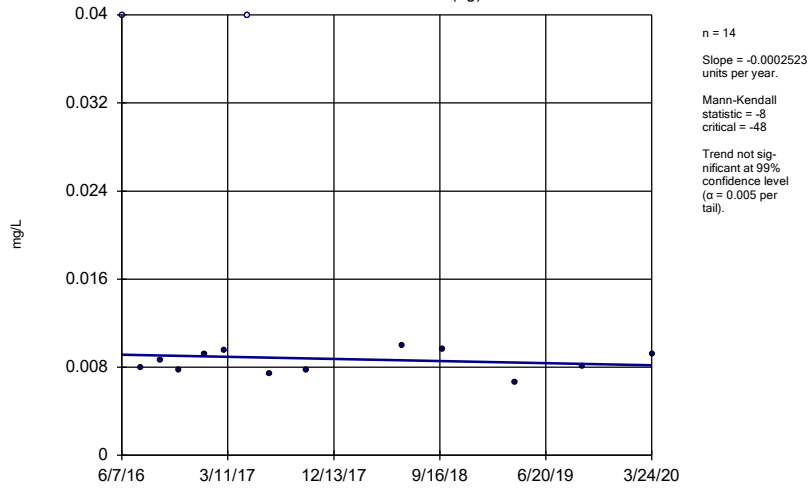
Trend Test Summary - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	YGWC-49	-4.89	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-17S (bg)	5.544	21	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18I (bg)	-2.555	-12	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18S (bg)	6.215	22	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-20S (bg)	7.597	35	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-21I (bg)	24.57	43	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-39 (bg)	4.803	7	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-40 (bg)	-19.81	-27	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-4I (bg)	7.969	29	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-5D (bg)	-15	-45	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-5I (bg)	1.982	11	48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-33S	-39.38	-34	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-38	-148.4	-25	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-41	-120.9	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-42	-143.1	-33	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-43	131	49	34	Yes	11	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

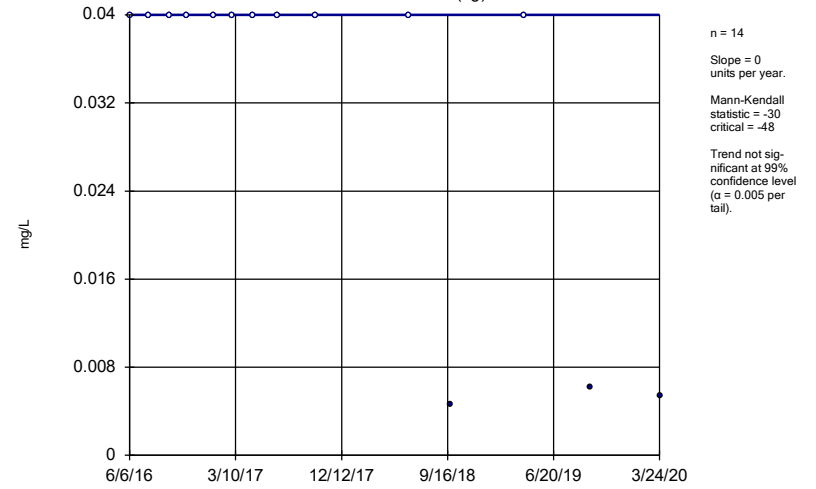
YGWA-17S (bg)



Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

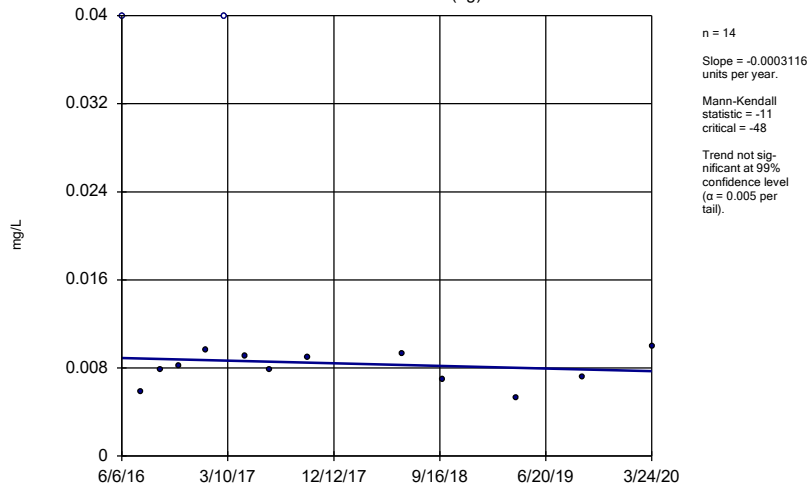
YGWA-18I (bg)



Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

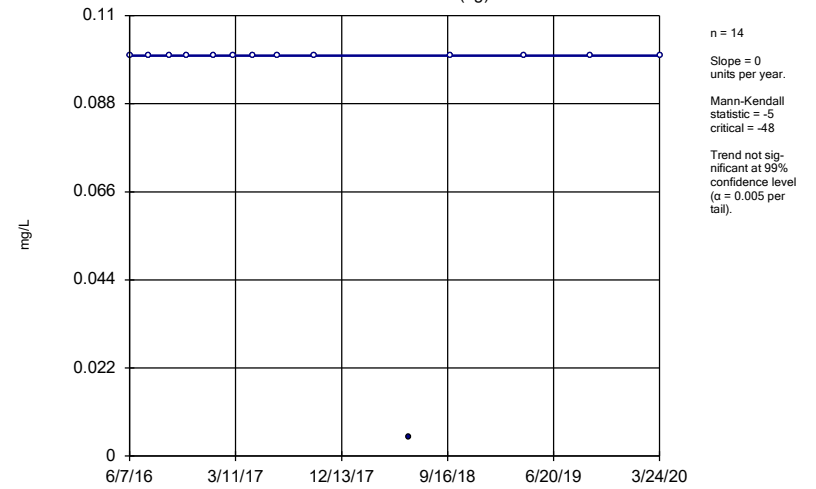
YGWA-18S (bg)



Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

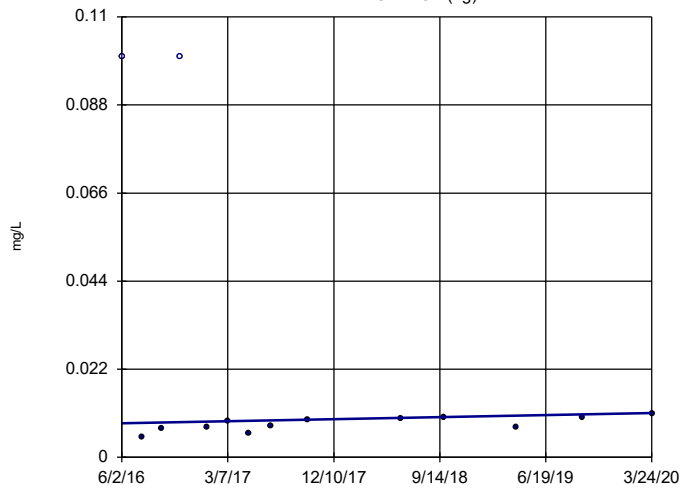
YGWA-20S (bg)



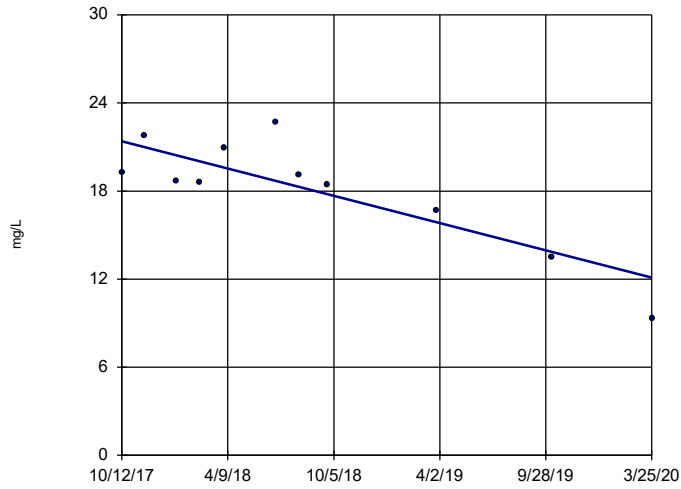
Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-5D (bg)



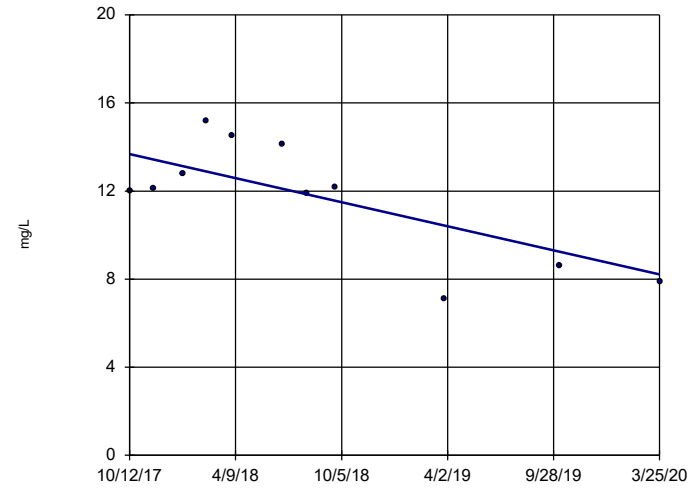
Sen's Slope Estimator YGWC-38



n = 11
 Slope = -3.784
 units per year.
 Mann-Kendall
 statistic = -33
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 (alpha = 0.005 per
 tail).

Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

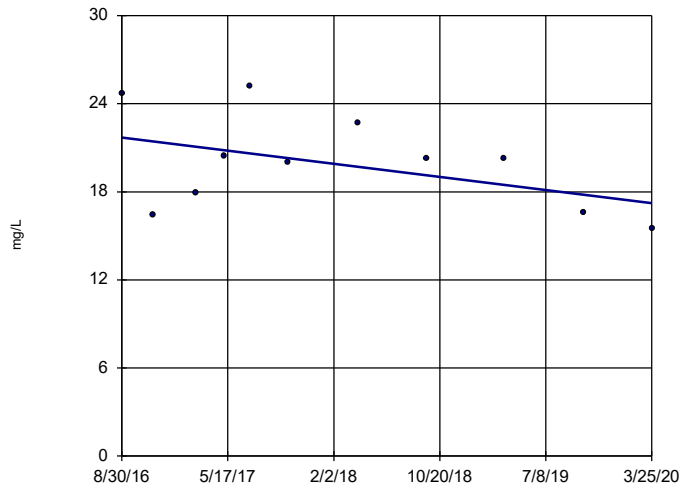
Sen's Slope Estimator YGWC-41



n = 11
 Slope = -2.225
 units per year.
 Mann-Kendall
 statistic = -21
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 (alpha = 0.005 per
 tail).

Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

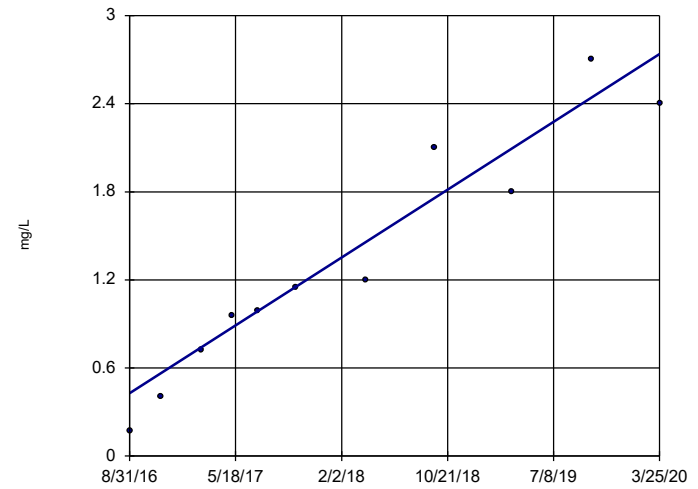
Sen's Slope Estimator YGWC-42



n = 11
 Slope = -1.254
 units per year.
 Mann-Kendall
 statistic = -14
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 (alpha = 0.005 per
 tail).

Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator YGWC-43

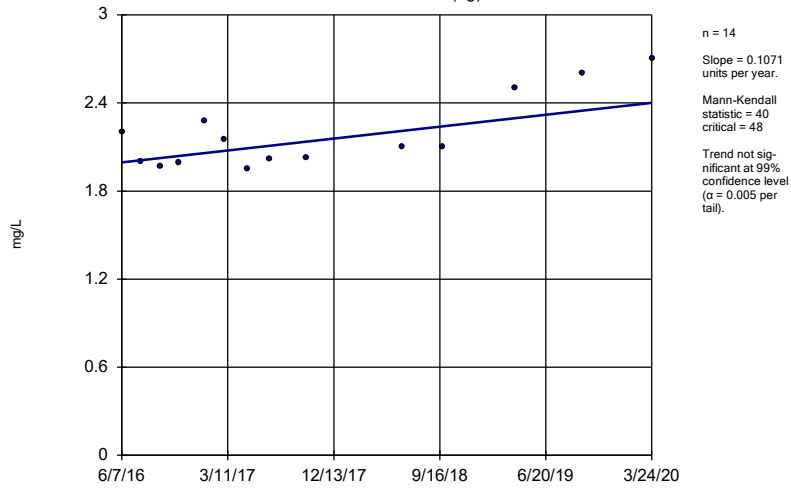


n = 11
 Slope = 0.6477
 units per year.
 Mann-Kendall
 statistic = 51
 critical = 34
 Increasing trend
 significant at 99%
 confidence level
 (alpha = 0.005 per
 tail).

Constituent: Boron Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

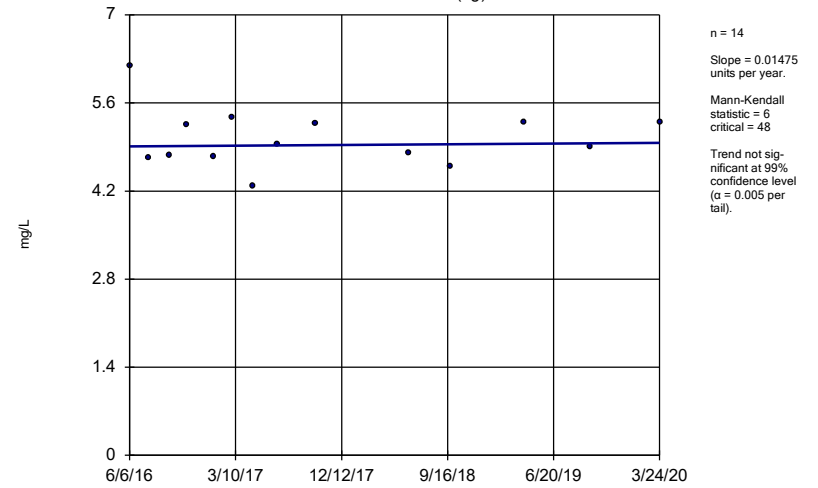
YGWA-17S (bg)



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

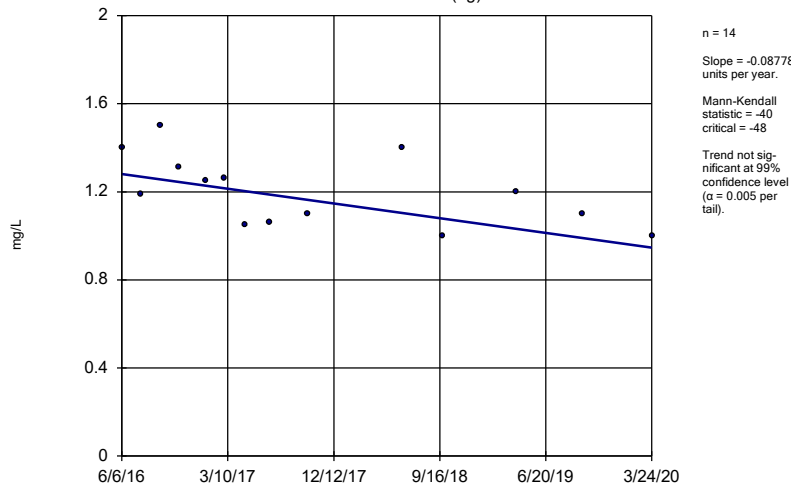
YGWA-18I (bg)



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

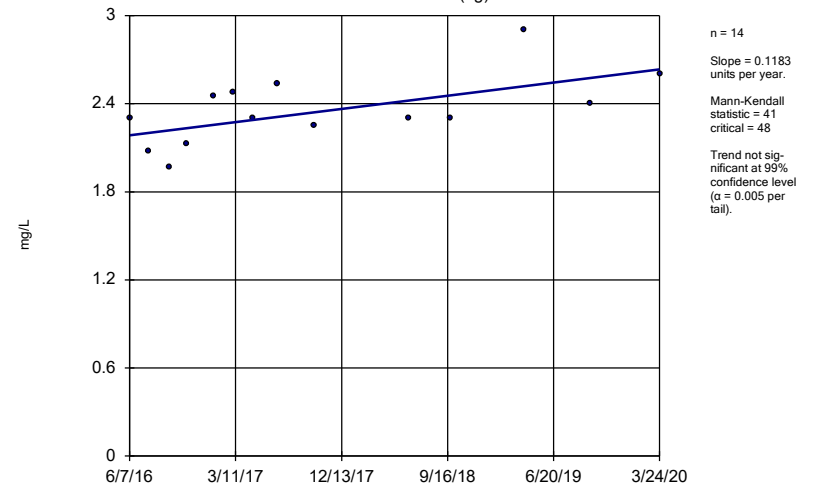
YGWA-18S (bg)



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

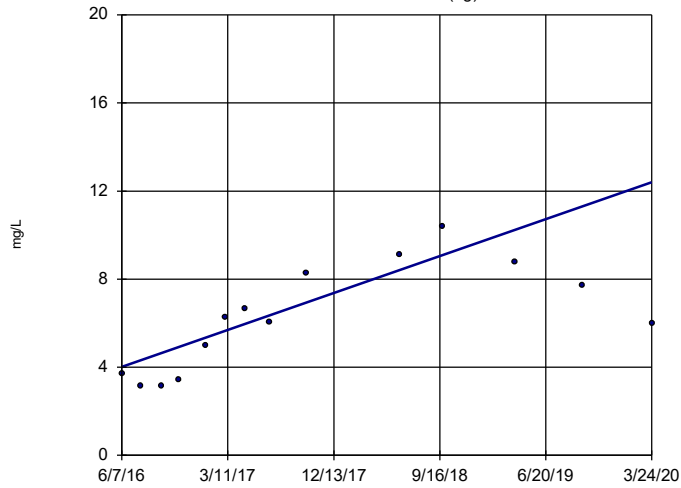
YGWA-20S (bg)



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-211 (bg)

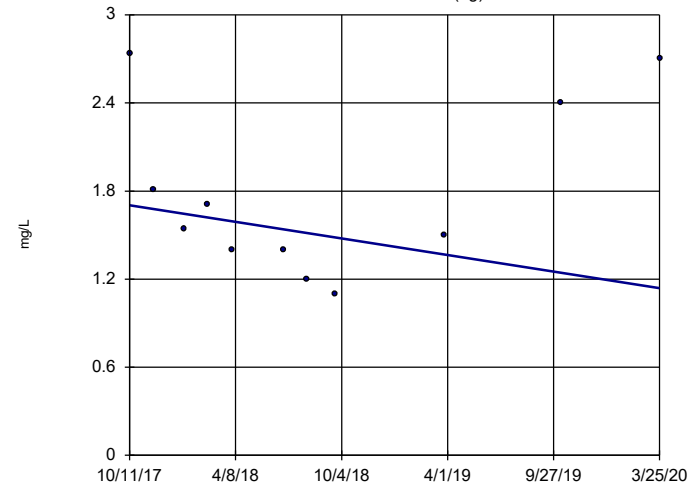


n = 14
 Slope = 2.207
 units per year.
 Mann-Kendall
 statistic = 53
 critical = 48
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-39 (bg)

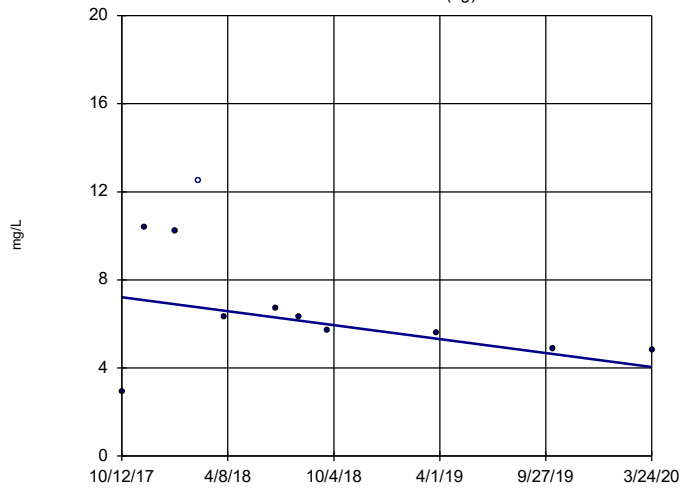


n = 11
 Slope = -0.23
 units per year.
 Mann-Kendall
 statistic = -10
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-40 (bg)

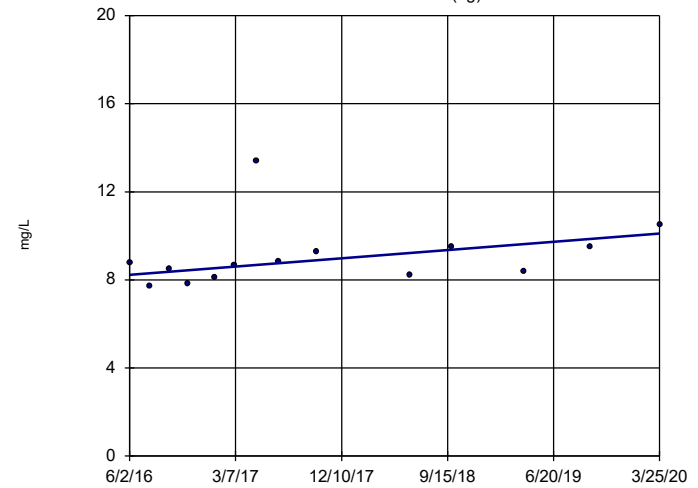


n = 11
 Slope = -1.297
 units per year.
 Mann-Kendall
 statistic = -28
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-41 (bg)

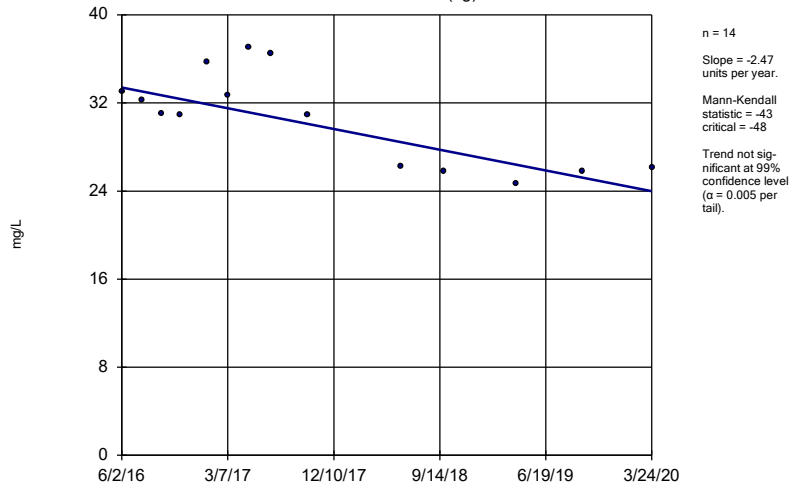


n = 14
 Slope = 0.4896
 units per year.
 Mann-Kendall
 statistic = 40
 critical = 48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

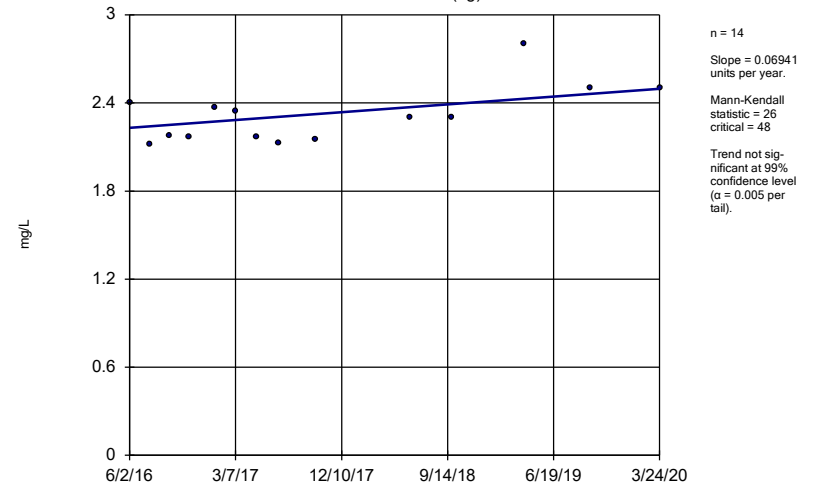
YGWA-5D (bg)



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

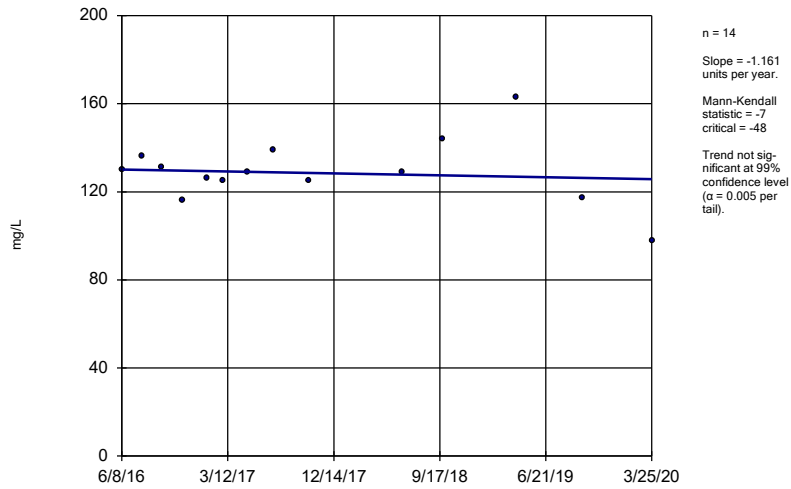
YGWA-5I (bg)



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

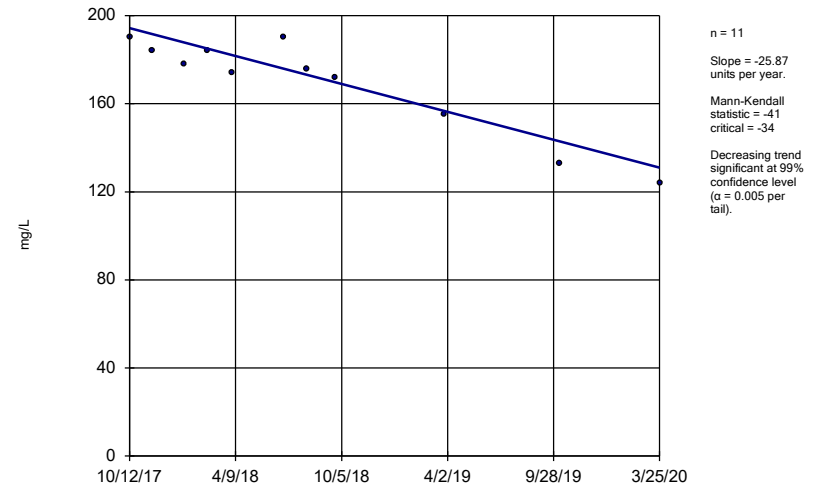
YGWC-33S



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

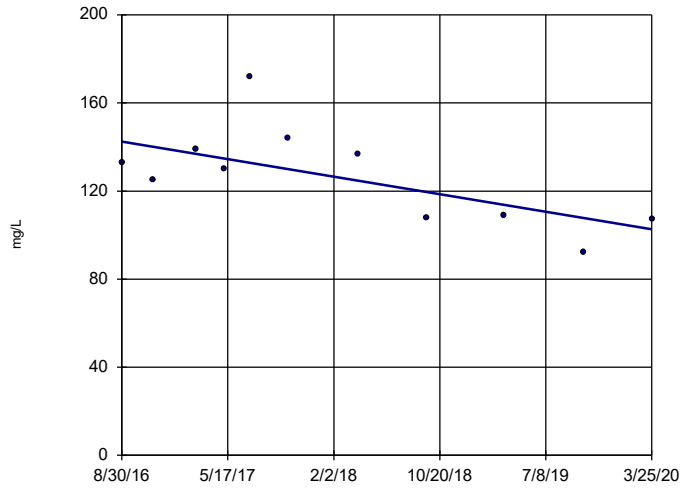
YGWC-38



Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWC-42

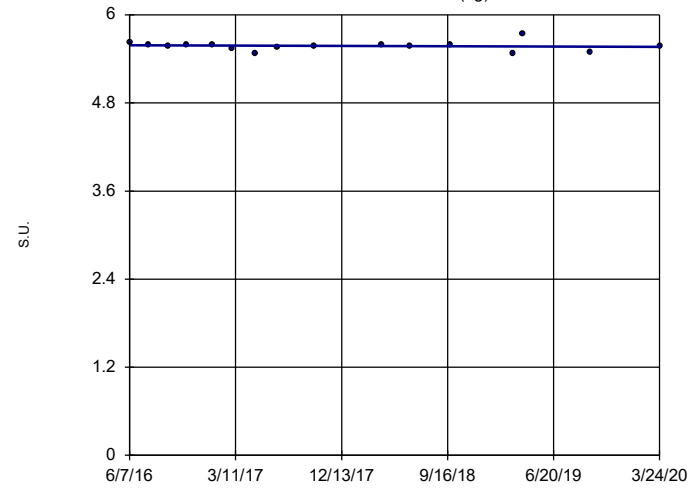


n = 11
Slope = -11.17 units per year.
Mann-Kendall statistic = -23
critical = -34
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-17S (bg)

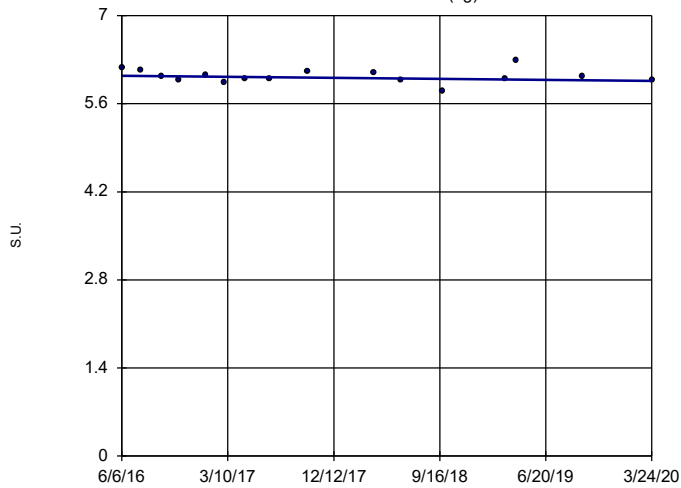


n = 16
Slope = -0.00607 units per year.
Mann-Kendall statistic = -22
critical = -58
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-18I (bg)

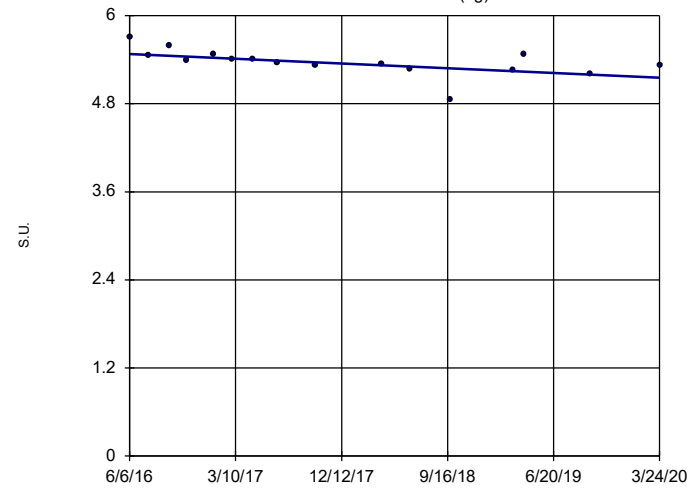


n = 16
Slope = -0.0211 units per year.
Mann-Kendall statistic = -21
critical = -58
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-18S (bg)

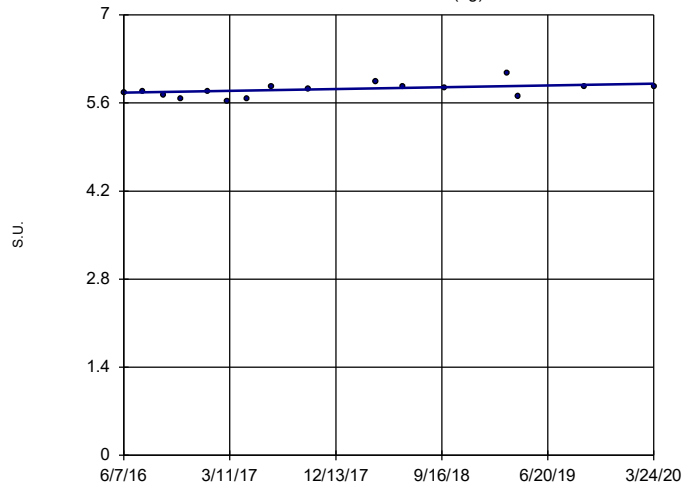


n = 16
Slope = -0.08453 units per year.
Mann-Kendall statistic = -74
critical = -58
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-20S (bg)

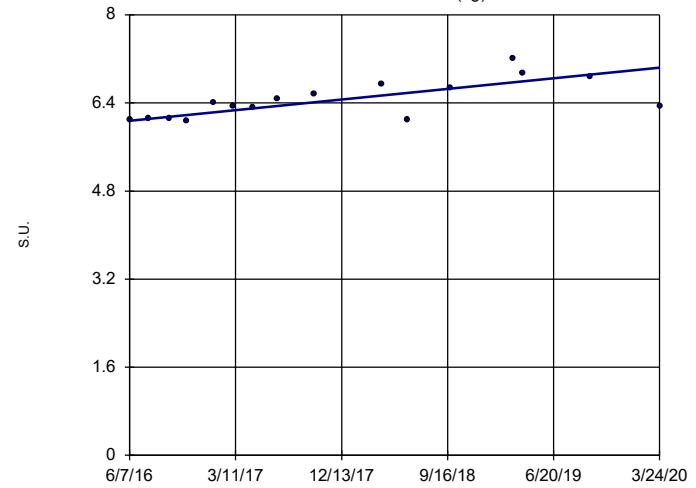


n = 16
 Slope = 0.03732 units per year.
 Mann-Kendall statistic = 48
 critical = 58
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-21I (bg)

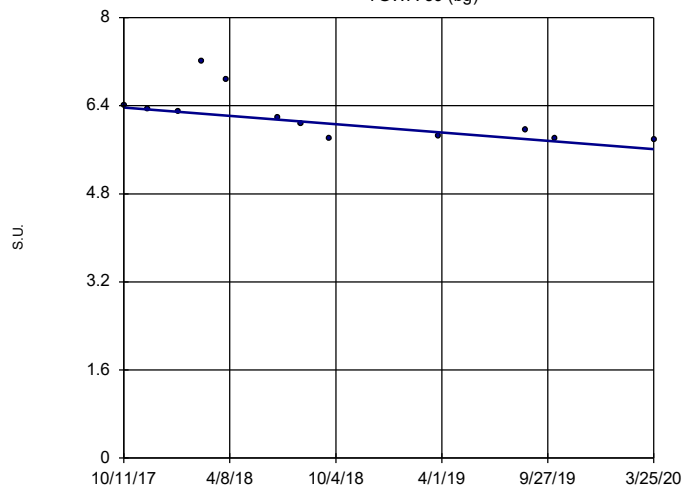


n = 16
 Slope = 0.2542 units per year.
 Mann-Kendall statistic = 65
 critical = 58
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-39 (bg)

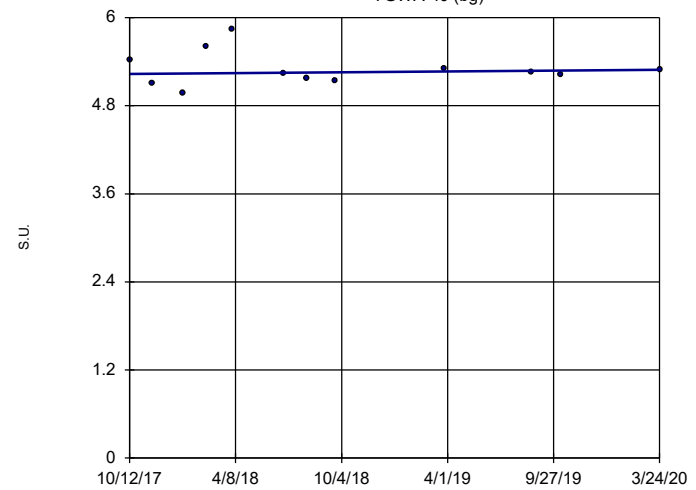


n = 12
 Slope = -0.3058 units per year.
 Mann-Kendall statistic = -47
 critical = -38
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-40 (bg)

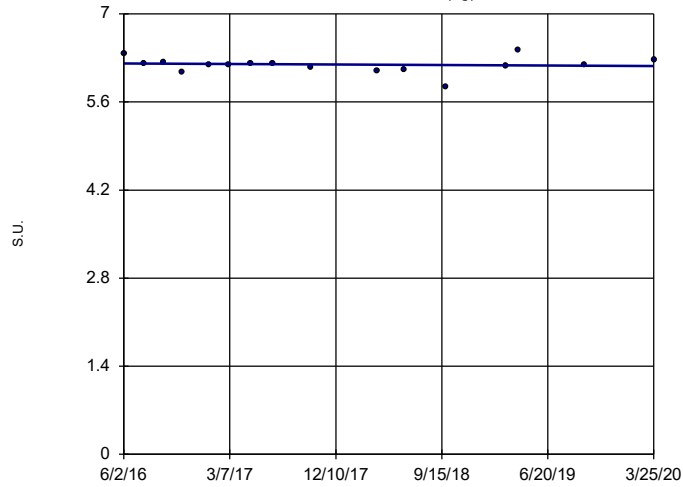


n = 12
 Slope = 0.02308 units per year.
 Mann-Kendall statistic = 2
 critical = 38
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-4l (bg)

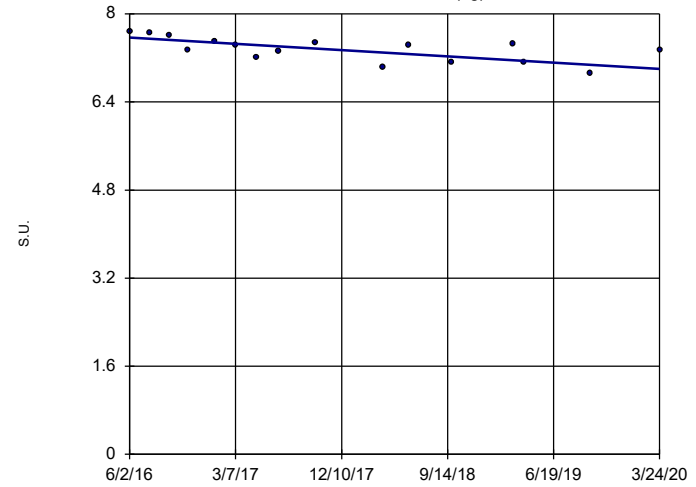


n = 16
 Slope = -0.01041 units per year.
 Mann-Kendall statistic = -14
 critical = -58
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-5D (bg)

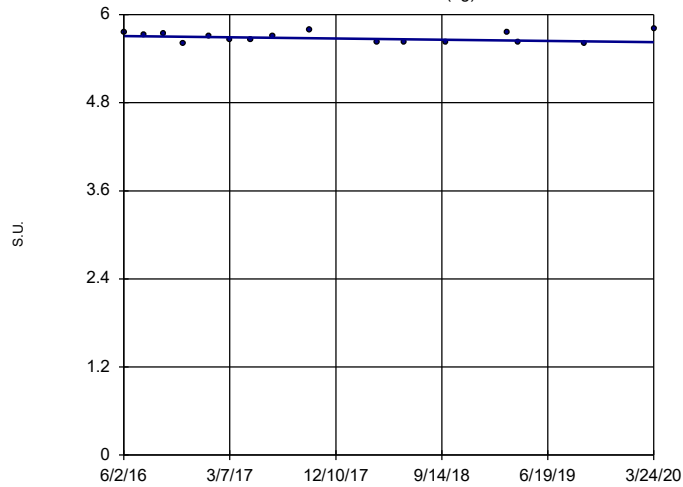


n = 16
 Slope = -0.1483 units per year.
 Mann-Kendall statistic = -67
 critical = -58
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-5l (bg)

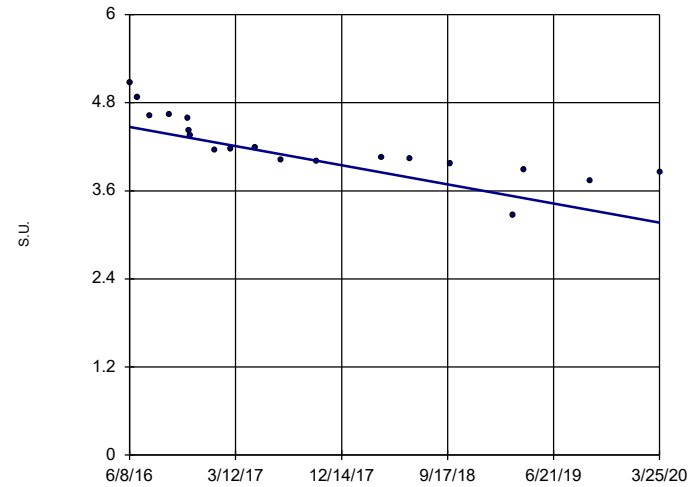


n = 16
 Slope = -0.0216 units per year.
 Mann-Kendall statistic = -25
 critical = -58
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWC-33S

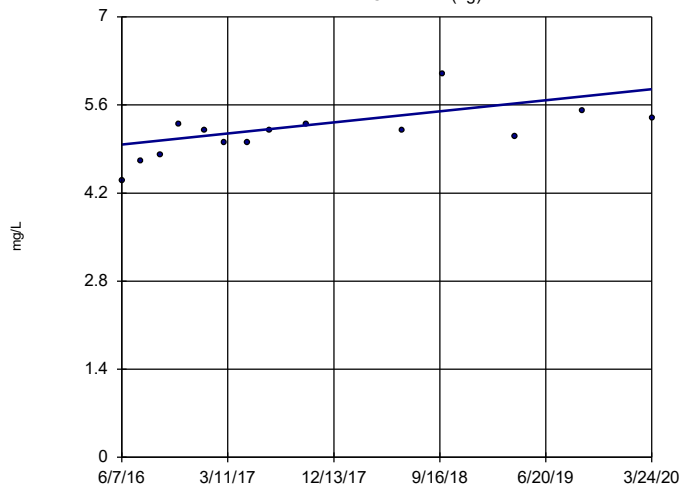


n = 19
 Slope = -0.3435 units per year.
 Mann-Kendall statistic = -147
 critical = -74
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/5/2020 4:14 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-17S (bg)



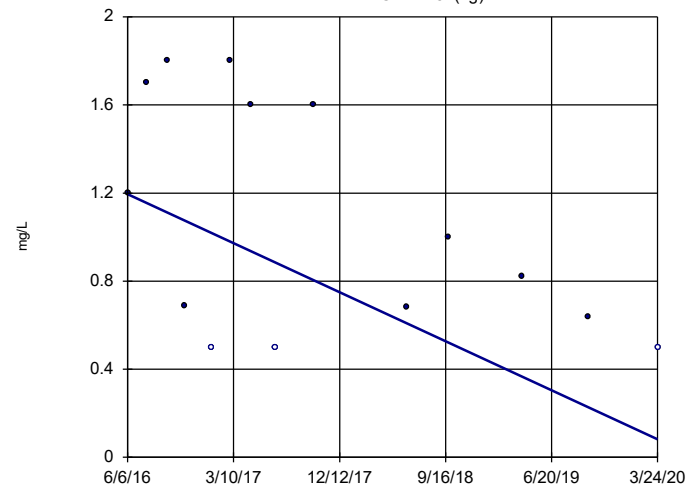
n = 14
Slope = 0.2314
units per year.
Mann-Kendall
statistic = 52
critical = 48
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-18I (bg)



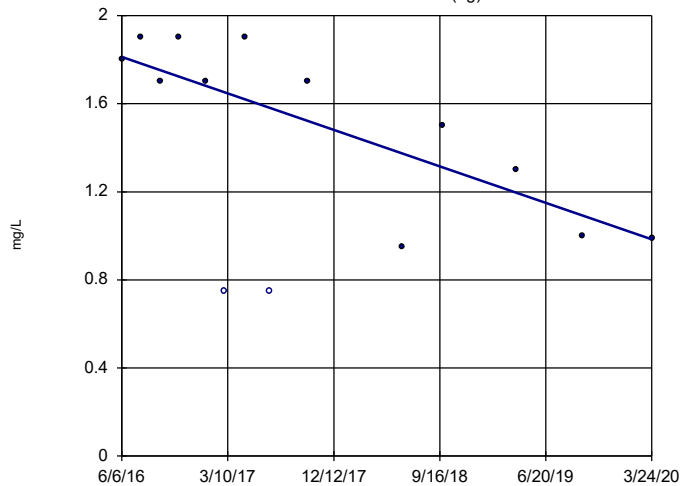
n = 14
Slope = -0.2926
units per year.
Mann-Kendall
statistic = -34
critical = -48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-18S (bg)



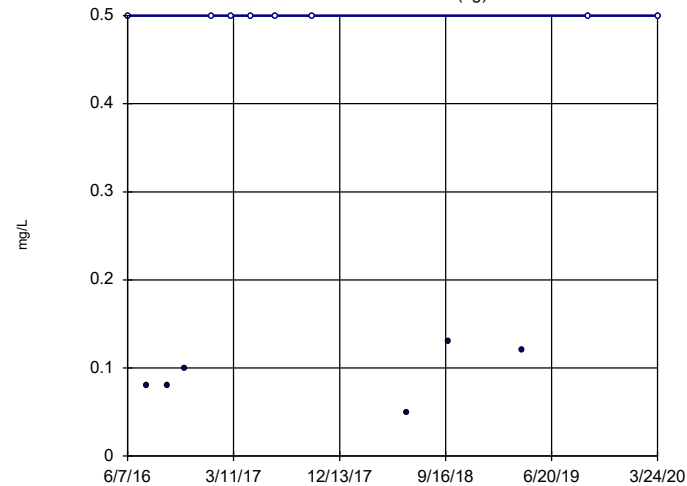
n = 14
Slope = -0.2179
units per year.
Mann-Kendall
statistic = -38
critical = -48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-20S (bg)

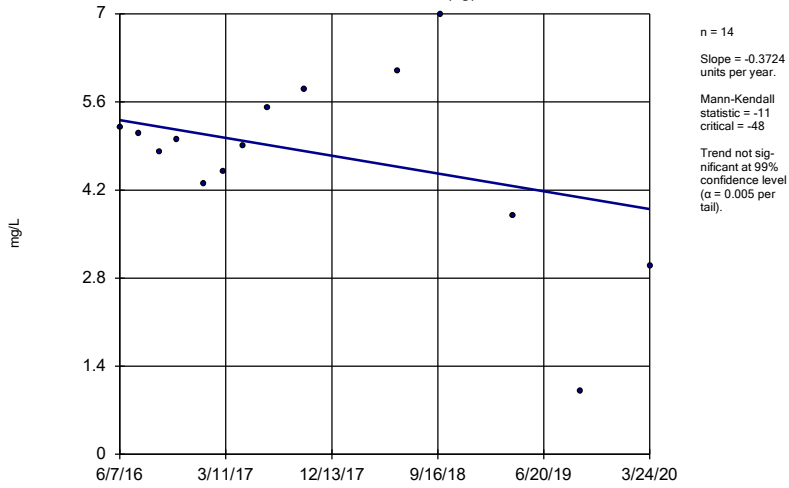


n = 14
Slope = 0
units per year.
Mann-Kendall
statistic = 12
critical = 48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

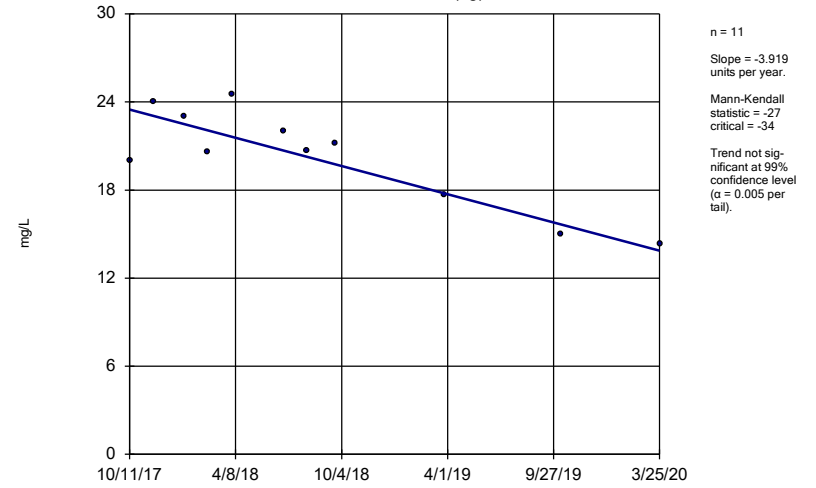
YGWA-211 (bg)



Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

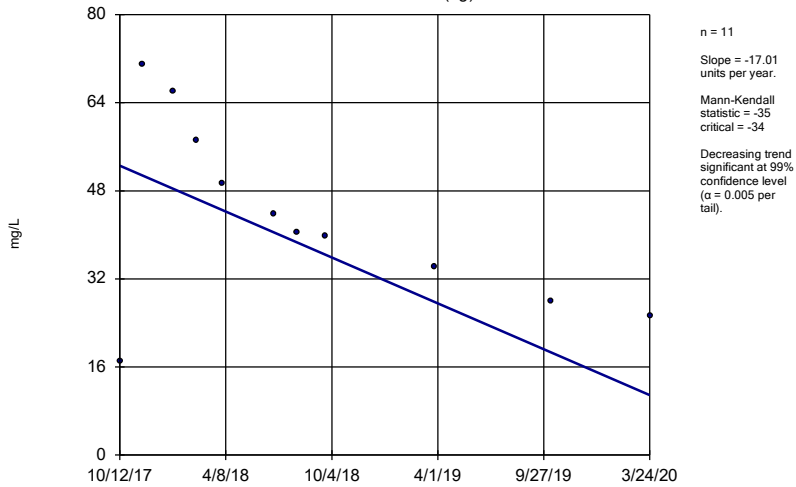
YGWA-39 (bg)



Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

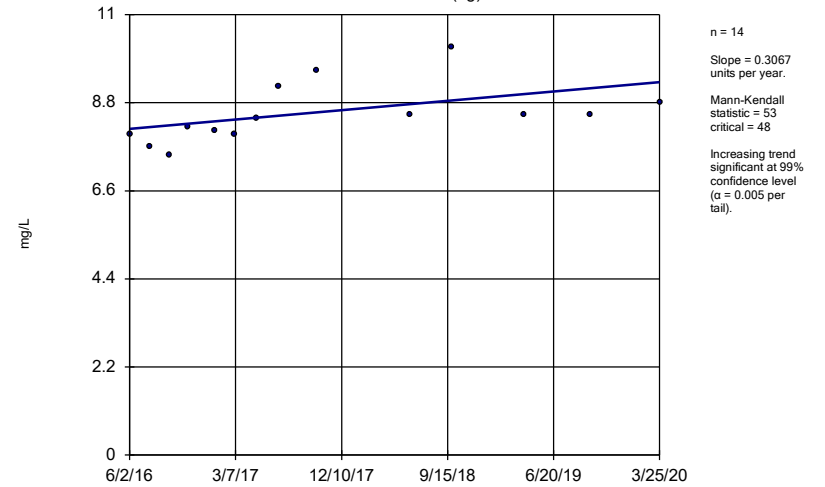
YGWA-40 (bg)



Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

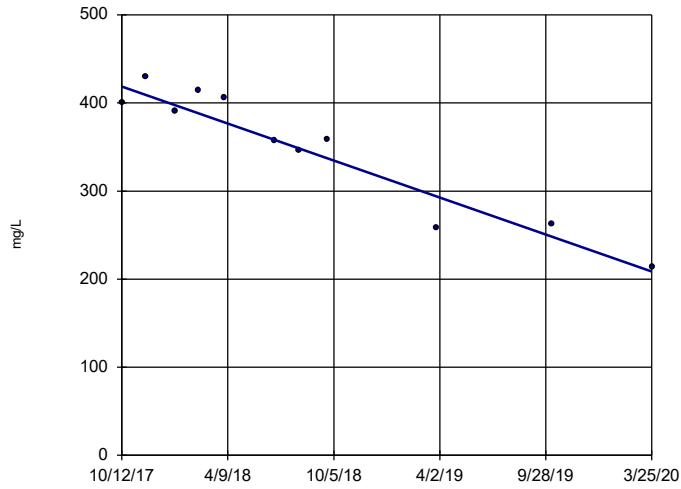
YGWA-41 (bg)



Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWC-41

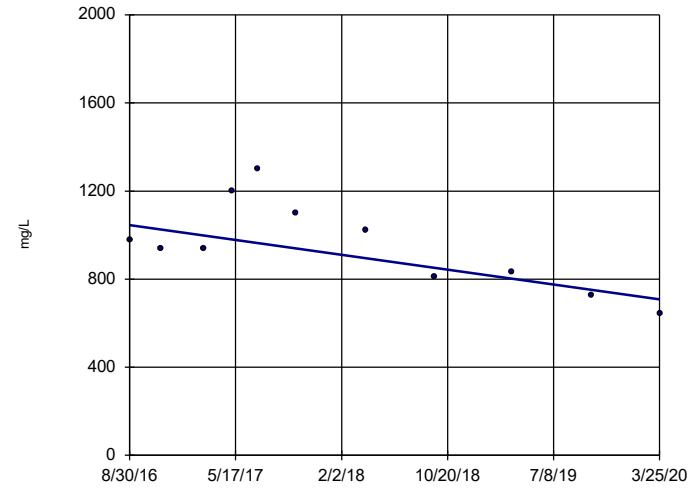


n = 11
 Slope = -85.6
 units per year.
 Mann-Kendall
 statistic = -39
 critical = -34
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWC-42

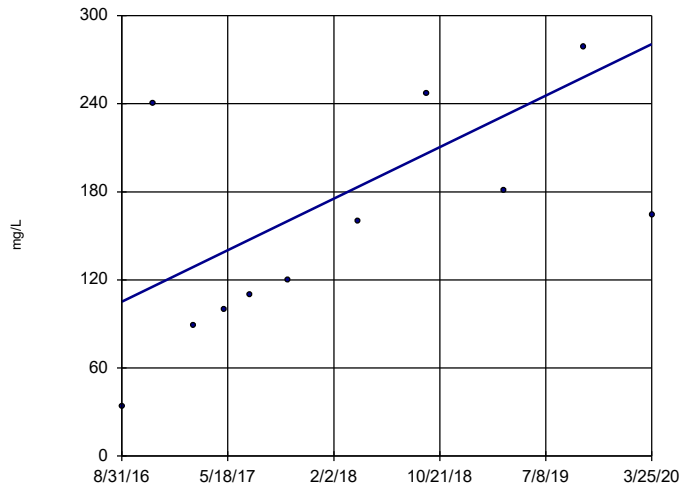


n = 11
 Slope = -94.68
 units per year.
 Mann-Kendall
 statistic = -26
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWC-43

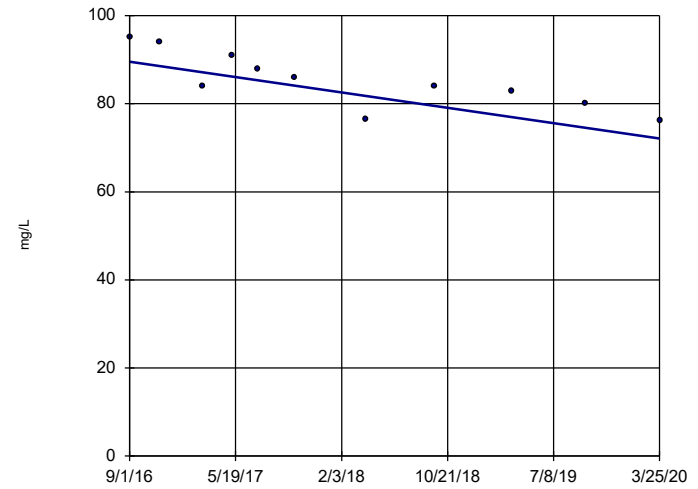


n = 11
 Slope = 49.2
 units per year.
 Mann-Kendall
 statistic = 33
 critical = 34
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWC-49

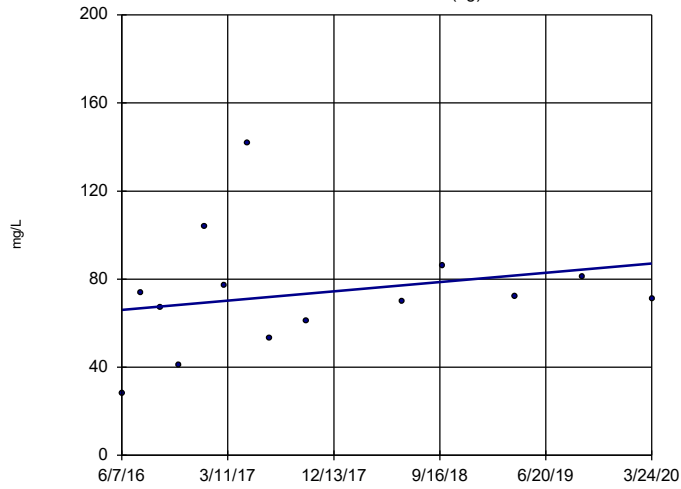


n = 11
 Slope = -4.89
 units per year.
 Mann-Kendall
 statistic = -41
 critical = -34
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-17S (bg)

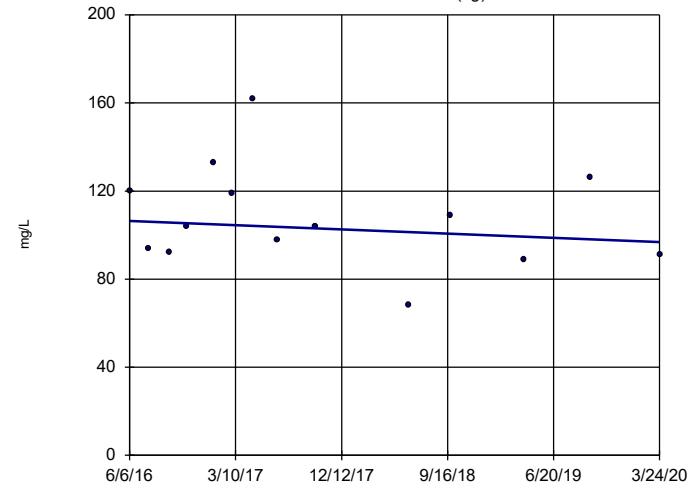


n = 14
 Slope = 5.544 units per year.
 Mann-Kendall statistic = 21
 critical = 48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-18I (bg)

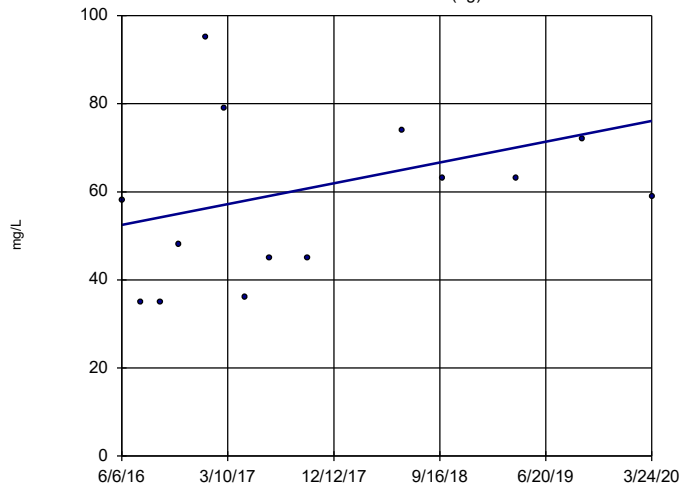


n = 14
 Slope = -2.555 units per year.
 Mann-Kendall statistic = -12
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-18S (bg)

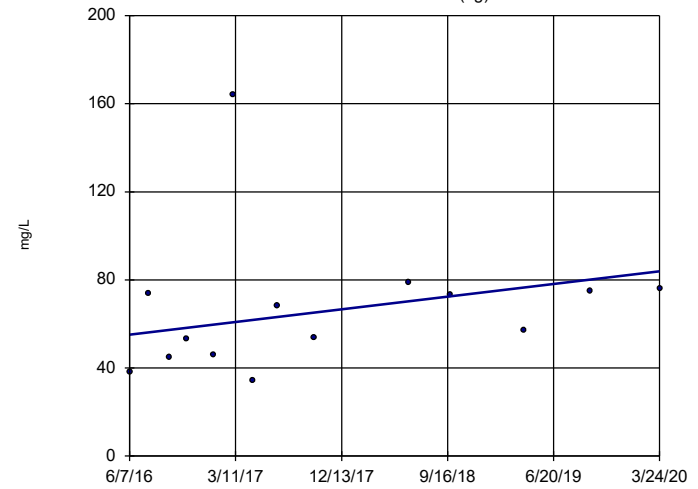


n = 14
 Slope = 6.215 units per year.
 Mann-Kendall statistic = 22
 critical = 48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-20S (bg)

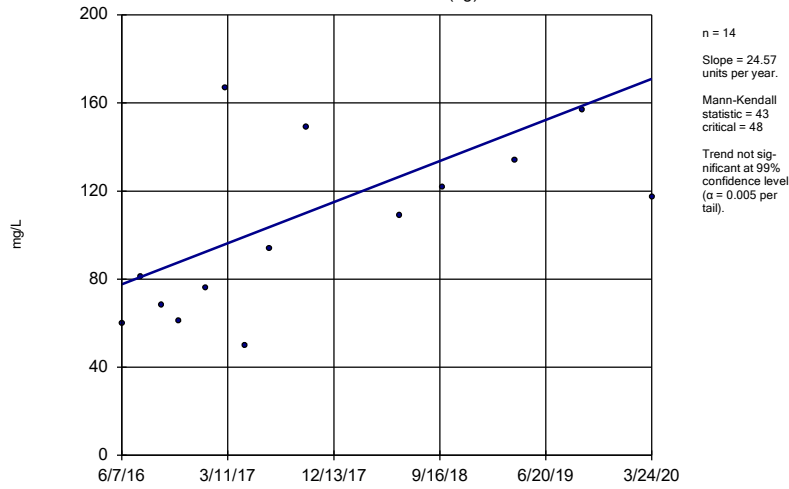


n = 14
 Slope = 7.597 units per year.
 Mann-Kendall statistic = 35
 critical = 48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

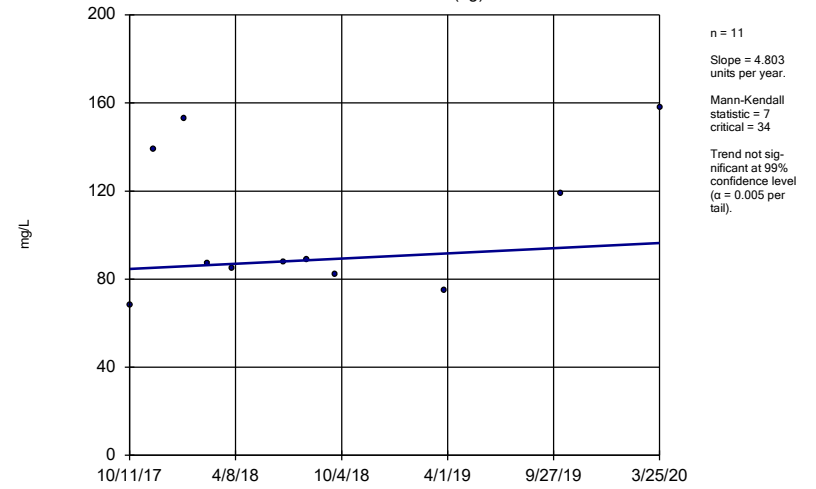
YGWA-211 (bg)



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

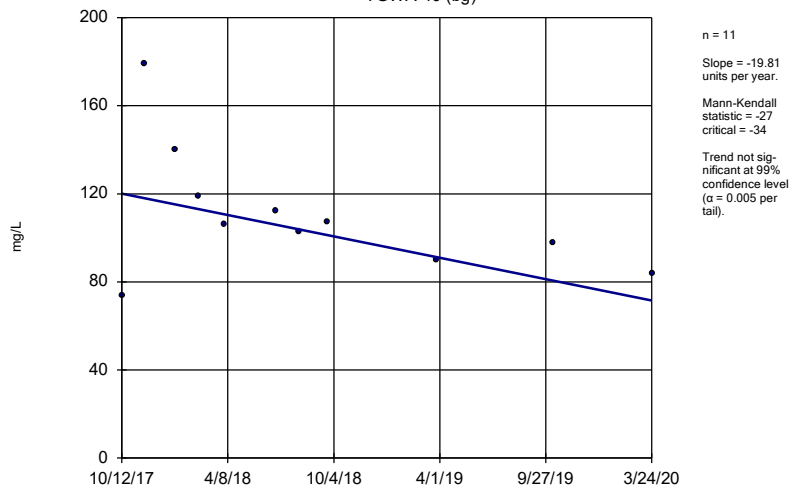
YGWA-39 (bg)



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

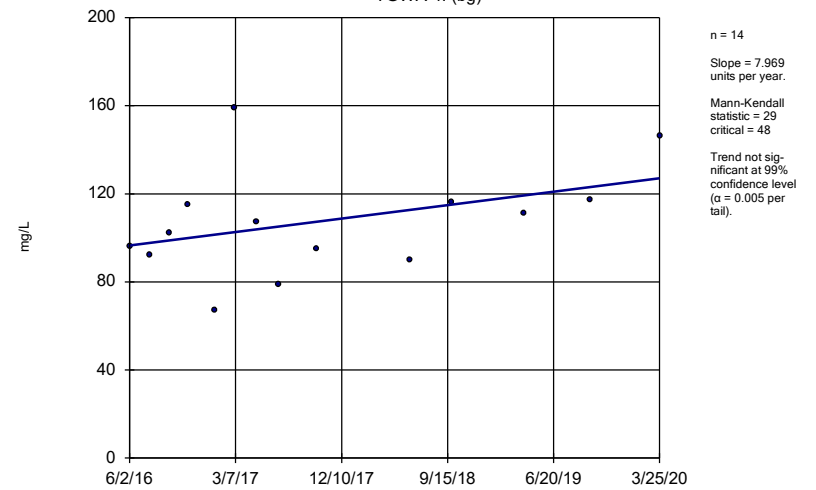
YGWA-40 (bg)



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

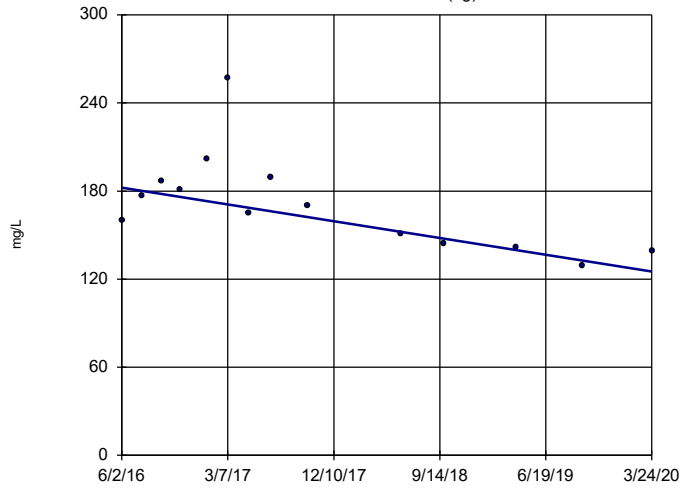
YGWA-41 (bg)



Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-5D (bg)

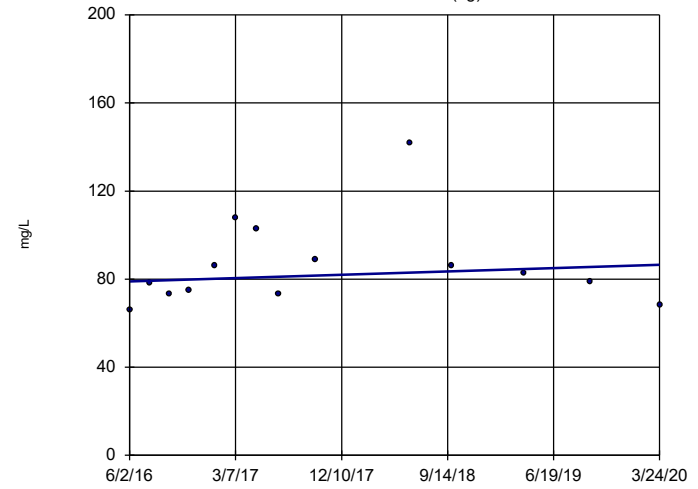


n = 14
 Slope = -15
 units per year.
 Mann-Kendall
 statistic = -45
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWA-5I (bg)

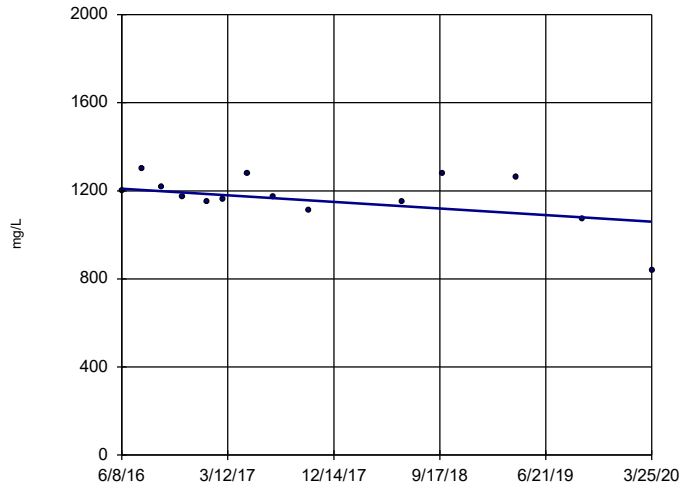


n = 14
 Slope = 1.982
 units per year.
 Mann-Kendall
 statistic = 11
 critical = 48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

YGWC-33S

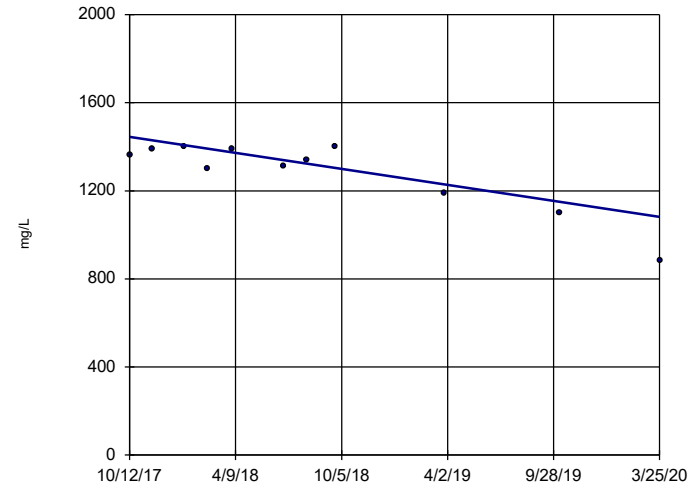


n = 14
 Slope = -39.38
 units per year.
 Mann-Kendall
 statistic = -34
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator

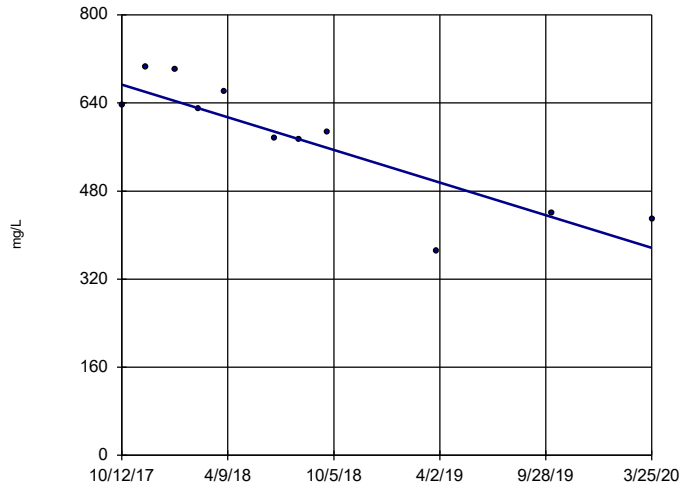
YGWC-38



n = 11
 Slope = -148.4
 units per year.
 Mann-Kendall
 statistic = -25
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

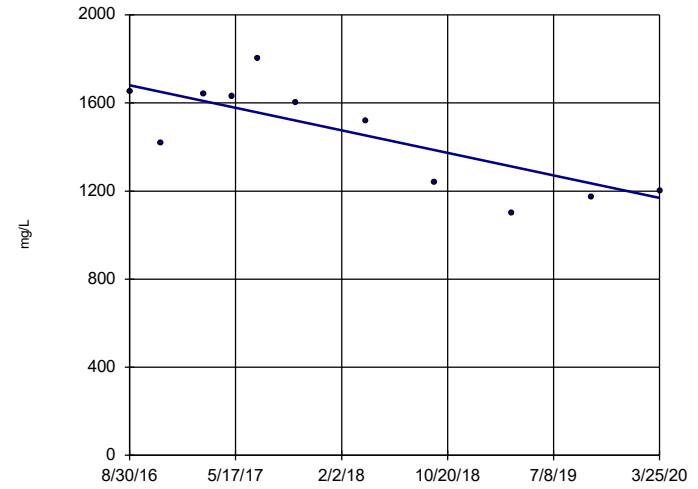
Sen's Slope Estimator YGWC-41



n = 11
Slope = -120.9
units per year.
Mann-Kendall
statistic = -39
critical = -34
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

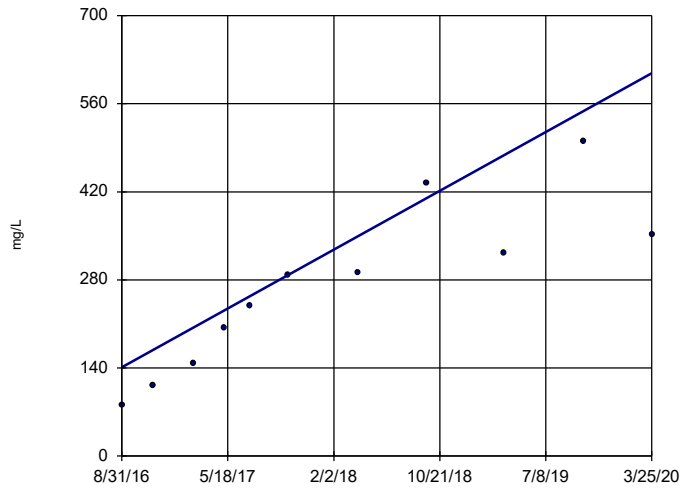
Sen's Slope Estimator YGWC-42



n = 11
Slope = -143.1
units per year.
Mann-Kendall
statistic = -33
critical = -34
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Sen's Slope Estimator YGWC-43



n = 11
Slope = 131
units per year.
Mann-Kendall
statistic = 49
critical = 34
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 5/5/2020 4:15 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

FIGURE E.

Tolerance Limit Summary Table - Appendix IV

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:38 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0035	n/a	124	n/a	n/a	91.13	n/a	n/a	0.001729	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	142	n/a	n/a	83.1	n/a	n/a	0.0006867	NP Inter(NDs)
Barium (mg/L)	n/a	0.0671	n/a	142	n/a	n/a	2.817	n/a	n/a	0.0006867	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	n/a	142	n/a	n/a	80.99	n/a	n/a	0.0006867	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	142	n/a	n/a	97.18	n/a	n/a	0.0006867	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	110	n/a	n/a	78.18	n/a	n/a	0.003545	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.013	n/a	142	n/a	n/a	79.58	n/a	n/a	0.0006867	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	6.92	n/a	141	n/a	n/a	0	n/a	n/a	0.0007228	NP Inter(normality)
Fluoride (mg/L)	n/a	0.32	n/a	152	n/a	n/a	87.5	n/a	n/a	0.0004111	NP Inter(NDs)
Lead (mg/L)	n/a	0.005	n/a	126	n/a	n/a	86.51	n/a	n/a	0.00156	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	142	n/a	n/a	30.99	n/a	n/a	0.0006867	NP Inter(normality)
Mercury (mg/L)	n/a	0.0005	n/a	106	n/a	n/a	94.34	n/a	n/a	0.004352	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	110	n/a	n/a	80.91	n/a	n/a	0.003545	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	142	n/a	n/a	86.62	n/a	n/a	0.0006867	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	125	n/a	n/a	100	n/a	n/a	0.001642	NP Inter(NDs)

FIGURE F.

PLANT AMA-R6 GWPS			
Constituent Name	MCL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006	0.0035	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.067	2
Beryllium, Total (mg/L)	0.004	0.003	0.004
Cadmium, Total (mg/L)	0.005	0.0025	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.013	0.013
Combined Radium, Total (pCi/L)	5	6.92	6.92
Fluoride, Total (mg/L)	4	0.32	4
Lead, Total (mg/L)	n/a	0.005	0.005
Lithium, Total (mg/L)	n/a	0.03	0.03
Mercury, Total (mg/L)	0.002	0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.01	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

**Grey cell indicates background is higher than MCL.*

**MCL = Maximum Contaminant Level*

FIGURE G.

Confidence Interval Summary Table - Significant Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	YGWC-33S	0.01955	0.01454	0.004	Yes	15	0.01717	0.003916	0	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	YGWC-38	0.005717	0.004702	0.004	Yes	11	0.005209	0.000609	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-33S	0.02603	0.01477	0.013	Yes	15	0.0204	0.008309	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-38	0.2511	0.1547	0.05	Yes	11	0.2029	0.05784	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-41	0.06837	0.05309	0.05	Yes	11	0.05907	0.01451	0	None	x^3	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-23S	0.003	0.00029	0.006	No	13	0.002792	0.0007516	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-24S	0.003	0.0009	0.006	No	13	0.002838	0.0005824	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-33S	0.003	0.003	0.006	No	13	0.003	0	100	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-36	0.002291	0.0004486	0.006	No	13	0.002738	0.001558	53.85	Kapla...	sqrt(x)	0.01	Param.
Antimony (mg/L)	YGWC-38	0.003	0.0015	0.006	No	10	0.002613	0.0008412	80	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-41	0.003	0.003	0.006	No	10	0.003	0	100	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-42	0.003	0.003	0.006	No	10	0.003	0	100	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-43	0.003	0.003	0.006	No	10	0.002731	0.0008507	90	Kapla...	No	0.011	NP (NDs)
Antimony (mg/L)	YGWC-49	0.003	0.0011	0.006	No	10	0.002563	0.000931	80	Kapla...	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-23S	0.005	0.0012	0.01	No	15	0.004747	0.0009812	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.005	0.0015	0.01	No	15	0.004767	0.0009037	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.004793	0.002861	0.01	No	15	0.003827	0.001426	6.667	None	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.005	0.00066	0.01	No	15	0.004124	0.001814	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-38	0.001615	0.0006536	0.01	No	11	0.001135	0.0005771	0	None	No	0.01	Param.
Arsenic (mg/L)	YGWC-41	0.005	0.00052	0.01	No	11	0.002302	0.00215	36.36	None	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-42	0.002574	0.001312	0.01	No	11	0.001943	0.0007573	0	None	No	0.01	Param.
Arsenic (mg/L)	YGWC-43	0.005	0.0007	0.01	No	11	0.003836	0.001996	72.73	None	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-49	0.005	0.00086	0.01	No	10	0.003746	0.002021	70	None	No	0.011	NP (normality)
Barium (mg/L)	YGWC-23S	0.04614	0.0268	2	No	15	0.03647	0.01427	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01975	0.01865	2	No	15	0.01917	0.0008591	0	None	x^4	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01741	0.01104	2	No	15	0.01441	0.005105	6.667	None	sqrt(x)	0.01	Param.
Barium (mg/L)	YGWC-36	0.04604	0.03306	2	No	15	0.0387	0.01078	0	None	x^2	0.01	Param.
Barium (mg/L)	YGWC-38	0.02507	0.02012	2	No	11	0.02259	0.00297	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-41	0.0325	0.02317	2	No	11	0.02784	0.005599	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-42	0.0505	0.0338	2	No	11	0.04215	0.01002	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-43	0.03161	0.01352	2	No	11	0.02256	0.01086	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-49	0.08269	0.07093	2	No	10	0.07681	0.006586	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.003	0.000077	0.004	No	15	0.001058	0.001422	33.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.003	0.0001	0.004	No	15	0.000698	0.001192	20	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.01955	0.01454	0.004	Yes	15	0.01717	0.003916	0	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	YGWC-36	0.00033	0.0002	0.004	No	15	0.000446	0.0007109	6.667	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-38	0.005717	0.004702	0.004	Yes	11	0.005209	0.000609	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-41	0.003766	0.003074	0.004	No	11	0.003364	0.0005201	0	None	x^5	0.01	Param.
Beryllium (mg/L)	YGWC-42	0.003	0.00009	0.004	No	11	0.002207	0.001358	72.73	None	No	0.006	NP (normality)
Beryllium (mg/L)	YGWC-43	0.003	0.00029	0.004	No	11	0.001761	0.001425	54.55	None	No	0.006	NP (normality)
Beryllium (mg/L)	YGWC-49	0.00013	0.0001	0.004	No	10	0.000397	0.0009147	10	None	No	0.011	NP (normality)
Cadmium (mg/L)	YGWC-23S	0.0025	0.00007	0.005	No	15	0.002338	0.0006274	93.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.0025	0.0025	0.005	No	15	0.0025	0	100	None	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003063	0.002068	0.005	No	15	0.002565	0.0007337	0	None	No	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0025	0.00015	0.005	No	15	0.000484	0.0008192	13.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-38	0.002911	0.002324	0.005	No	11	0.002609	0.0003807	0	None	x^2	0.01	Param.
Cadmium (mg/L)	YGWC-41	0.0025	0.00017	0.005	No	11	0.0006273	0.0009268	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	YGWC-42	0.0025	0.0002	0.005	No	11	0.001103	0.001116	36.36	None	No	0.006	NP (normality)
Cadmium (mg/L)	YGWC-43	0.0025	0.0025	0.005	No	11	0.0025	0	100	None	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-49	0.0025	0.0025	0.005	No	10	0.002257	0.0007684	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	YGWC-23S	0.01	0.0008	0.1	No	11	0.007582	0.004152	72.73	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-24S	0.01	0.0011	0.1	No	11	0.008367	0.003633	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-33S	0.01	0.0012	0.1	No	11	0.006155	0.004431	54.55	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-36	0.01	0.0035	0.1	No	11	0.008567	0.003247	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-38	0.01	0.00065	0.1	No	11	0.008286	0.003813	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-41	0.01	0.01	0.1	No	11	0.009126	0.002898	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-42	0.01	0.0006	0.1	No	11	0.007485	0.004313	72.73	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-43	0.01	0.00062	0.1	No	11	0.007442	0.004382	72.73	None	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-49	0.01	0.0013	0.1	No	9	0.002544	0.002804	11.11	None	No	0.002	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.005	0.013	No	15	0.005	0	100	None	No	0.01	NP (NDs)

Confidence Interval Summary Table - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	YGWC-24S	0.005	0.005	0.013	No	15	0.005	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02603	0.01477	0.013	Yes	15	0.0204	0.008309	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	15	0.004097	0.001869	80	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-38	0.005	0.005	0.013	No	11	0.005	0	100	None	No	0.006	NP (NDs)
Cobalt (mg/L)	YGWC-41	0.005	0.0003	0.013	No	11	0.003399	0.002231	63.64	None	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-42	0.002884	0.001638	0.013	No	11	0.002309	0.0009864	9.091	None	ln(x)	0.01	Param.
Cobalt (mg/L)	YGWC-43	0.005	0.0016	0.013	No	11	0.003682	0.001656	54.55	None	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-49	0.005	0.0006	0.013	No	10	0.00325	0.00226	60	None	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	0.8402	0.2935	6.92	No	15	0.5669	0.4034	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.8174	0.4518	6.92	No	15	0.6346	0.2697	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.418	0.7125	6.92	No	15	1.065	0.5205	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.114	0.5732	6.92	No	15	0.8437	0.3992	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-38	1.5	0.6416	6.92	No	11	1.071	0.5152	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-41	1.548	0.5806	6.92	No	11	1.082	0.6178	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-42	3.353	1.584	6.92	No	11	2.469	1.061	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-43	2.778	0.966	6.92	No	11	1.872	1.087	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-49	1.216	0.4762	6.92	No	10	0.846	0.4145	0	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.3	0.12	4	No	16	0.2562	0.09577	81.25	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.3	0.098	4	No	16	0.2707	0.08097	87.5	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5075	0.2094	4	No	16	0.3881	0.3056	6.25	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.3	0.05	4	No	16	0.2035	0.1181	56.25	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-38	0.2933	0.08603	4	No	12	0.277	0.1023	50	Kapla...	No	0.01	Param.
Fluoride (mg/L)	YGWC-41	0.3	0.11	4	No	12	0.2675	0.07593	83.33	Kapla...	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-42	0.3	0.041	4	No	12	0.2159	0.1247	66.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-43	0.1517	0.06199	4	No	12	0.1653	0.09893	25	Kapla...	No	0.01	Param.
Fluoride (mg/L)	YGWC-49	0.3	0.06	4	No	11	0.19	0.1097	45.45	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-23S	0.005	0.00044	0.005	No	13	0.004275	0.001772	84.62	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-24S	0.005	0.000053	0.005	No	13	0.004619	0.001372	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-33S	0.001367	0.0006861	0.005	No	13	0.002108	0.001717	23.08	Kapla...	x^(1/3)	0.01	Param.
Lead (mg/L)	YGWC-36	0.0017	0.0002	0.005	No	13	0.001108	0.001774	15.38	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-38	0.005	0.0001	0.005	No	11	0.003664	0.002289	72.73	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-41	0.005	0.00007	0.005	No	11	0.003305	0.002368	63.64	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-42	0.005	0.00009	0.005	No	11	0.003667	0.002283	72.73	None	No	0.006	NP (normality)
Lead (mg/L)	YGWC-43	0.005	0.00008	0.005	No	11	0.004105	0.001991	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-49	0.005	0.005	0.005	No	10	0.004506	0.001562	90	None	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-23S	0.0025	0.0017	0.03	No	15	0.003013	0.003363	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-24S	0.015	0.015	0.03	No	15	0.015	0	100	None	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.02899	0.01907	0.03	No	15	0.02403	0.007318	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-36	0.006331	0.004669	0.03	No	15	0.005407	0.001354	0	None	x^2	0.01	Param.
Lithium (mg/L)	YGWC-38	0.0095	0.0081	0.03	No	11	0.008709	0.0006188	0	None	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-41	0.0047	0.0032	0.03	No	11	0.004882	0.003398	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-42	0.04238	0.02606	0.03	No	11	0.03422	0.009791	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-43	0.0167	0.01027	0.03	No	11	0.01348	0.003859	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-49	0.0039	0.0036	0.03	No	10	0.00372	0.0002741	0	None	No	0.011	NP (normality)
Mercury (mg/L)	YGWC-23S	0.0005	0.0005	0.002	No	11	0.0004635	0.0001212	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-24S	0.0005	0.0005	0.002	No	11	0.0005	0	100	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-33S	0.0005	0.0005	0.002	No	11	0.0005	0	100	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-36	0.0005	0.0005	0.002	No	11	0.0005	0	100	None	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-38	0.0005	0.000037	0.002	No	9	0.0004019	0.000195	77.78	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-41	0.0005	0.00006	0.002	No	9	0.0004511	0.0001467	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-42	0.0005	0.000048	0.002	No	9	0.0004498	0.0001507	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-43	0.0005	0.000052	0.002	No	9	0.0004502	0.0001493	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	YGWC-49	0.0005	0.000061	0.002	No	8	0.0004451	0.0001552	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	YGWC-23S	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-24S	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)

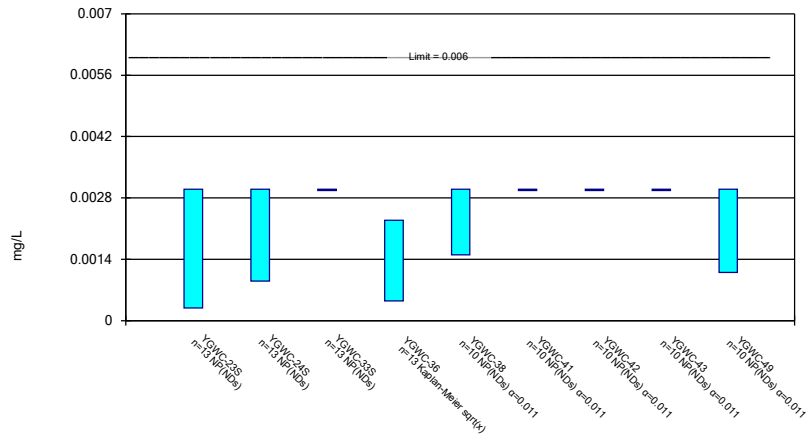
Confidence Interval Summary Table - All Results

Plant Yates Client: Southern Company Data: Plant Yates AMA-R6 Printed 5/5/2020, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	YGWC-33S	0.01	0.00095	0.01	No	11	0.008314	0.003753	81.82	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-36	0.01	0.0025	0.01	No	11	0.007045	0.003665	54.55	None	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-38	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-41	0.01	0.01	0.01	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-42	0.01	0.0017	0.01	No	11	0.006436	0.004119	54.55	None	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-43	0.01	0.0012	0.01	No	11	0.006918	0.004284	63.64	None	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-49	0.01	0.0007	0.01	No	9	0.008967	0.0031	88.89	None	No	0.002	NP (NDs)
Selenium (mg/L)	YGWC-23S	0.04108	0.02528	0.05	No	15	0.03318	0.01166	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.01	0.01	0.05	No	15	0.01	0	100	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.01576	0.008984	0.05	No	15	0.01237	0.005001	6.667	None	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.01	0.0018	0.05	No	15	0.00392	0.003213	20	None	No	0.01	NP (normality)
Selenium (mg/L)	YGWC-38	0.2511	0.1547	0.05	Yes	11	0.2029	0.05784	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-41	0.06837	0.05309	0.05	Yes	11	0.05907	0.01451	0	None	x^3	0.01	Param.
Selenium (mg/L)	YGWC-42	0.06096	0.03852	0.05	No	11	0.04974	0.01347	0	None	No	0.01	Param.
Selenium (mg/L)	YGWC-43	0.01	0.01	0.05	No	11	0.01	0	100	None	No	0.006	NP (NDs)
Selenium (mg/L)	YGWC-49	0.00955	0.00727	0.05	No	10	0.00841	0.001278	10	None	No	0.01	Param.
Thallium (mg/L)	YGWC-23S	0.001	0.001	0.002	No	13	0.001	0	100	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-24S	0.001	0.001	0.002	No	13	0.001	0	100	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-33S	0.0002493	0.0001146	0.002	No	13	0.0004454	0.0003932	30.77	Kapla...	ln(x)	0.01	Param.
Thallium (mg/L)	YGWC-36	0.001	0.001	0.002	No	13	0.001	0	100	Kapla...	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-38	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-41	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-42	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-43	0.001	0.001	0.002	No	10	0.001	0	100	Kapla...	No	0.011	NP (NDs)
Thallium (mg/L)	YGWC-49	0.001	0.001	0.002	No	10	0.000909	0.0002878	90	Kapla...	No	0.011	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

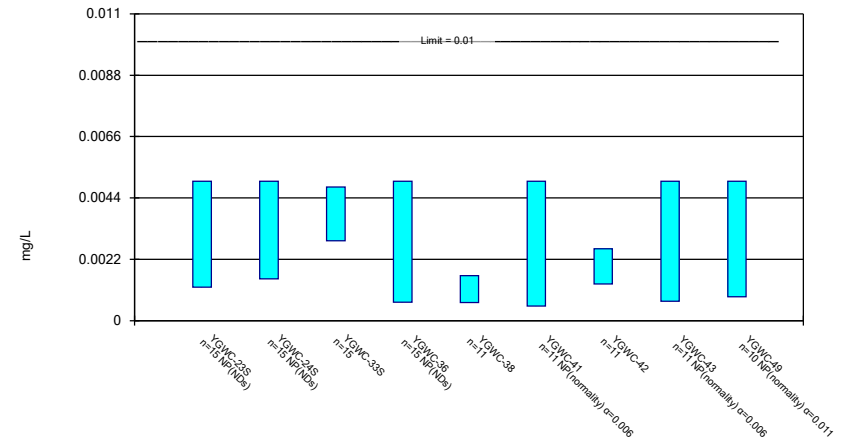
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Antimony Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

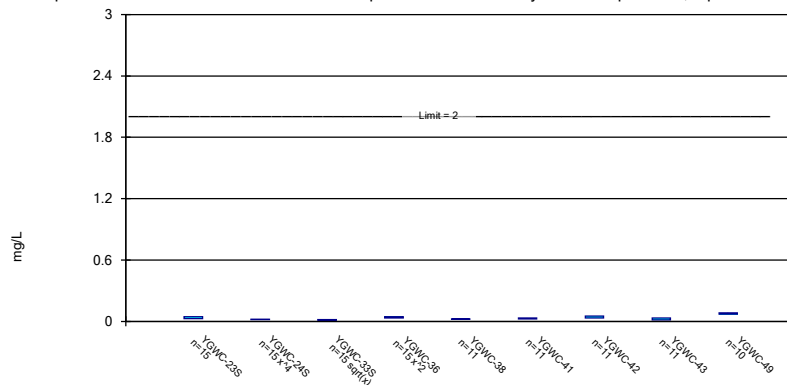
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric Confidence Interval

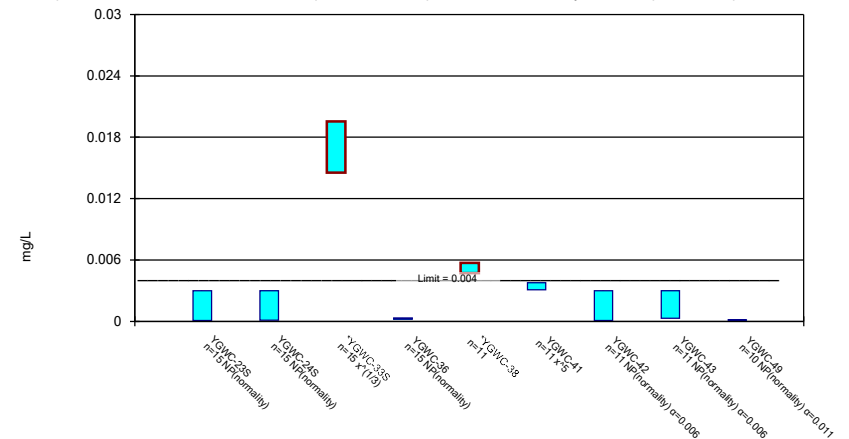
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

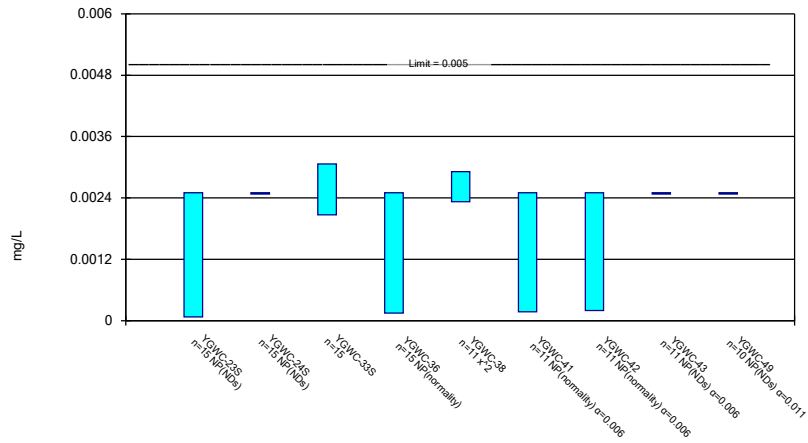
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

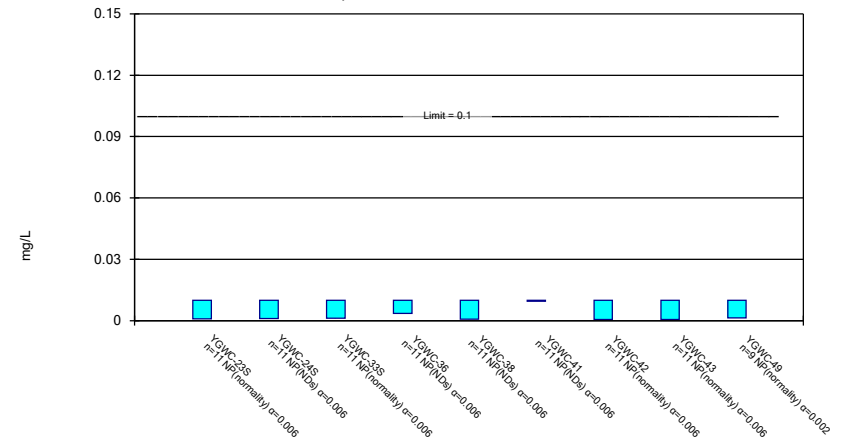
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Non-Parametric Confidence Interval

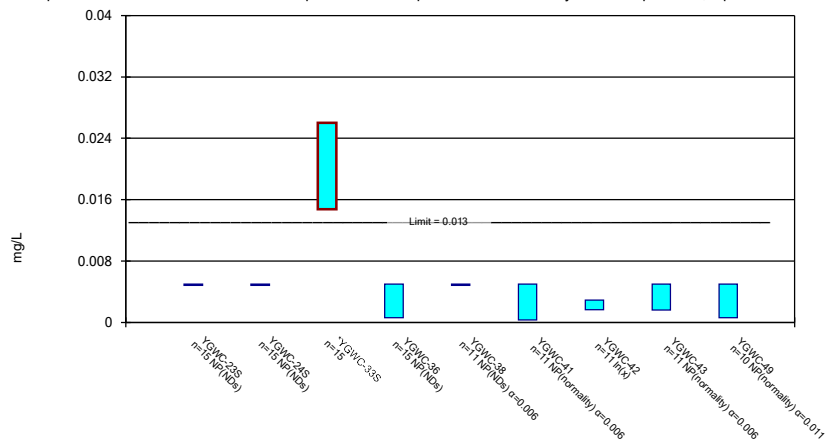
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

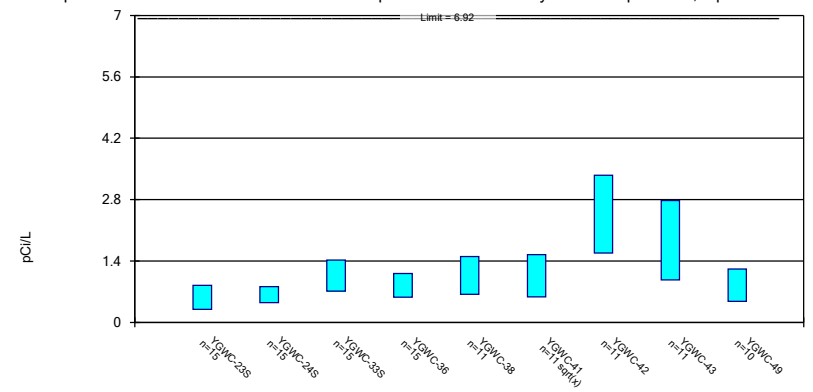
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric Confidence Interval

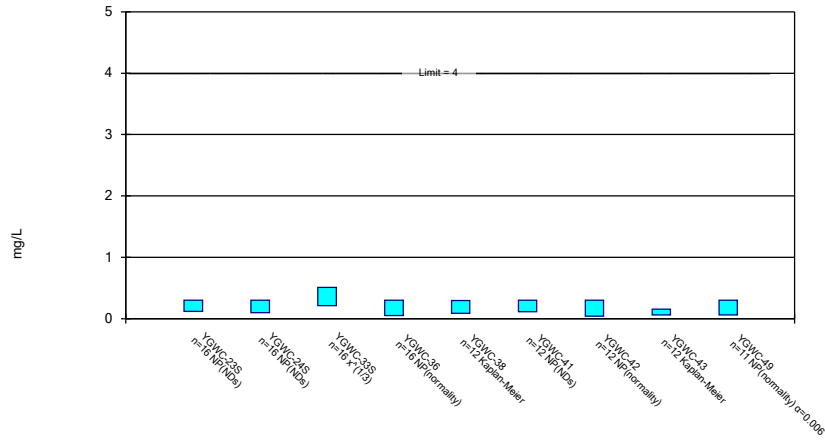
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

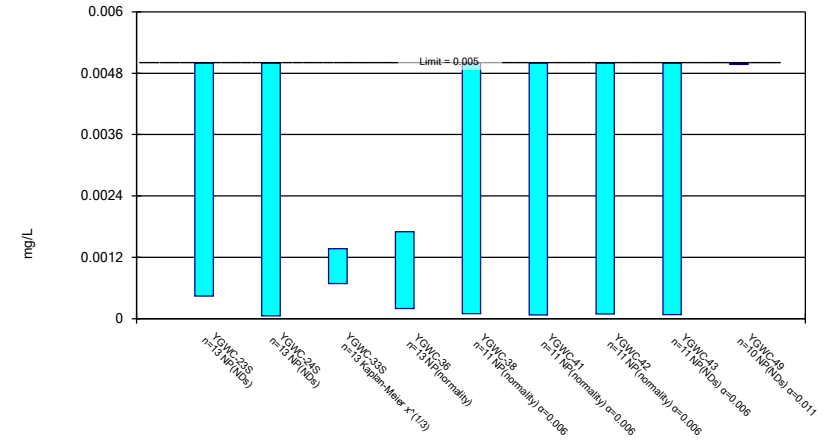
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

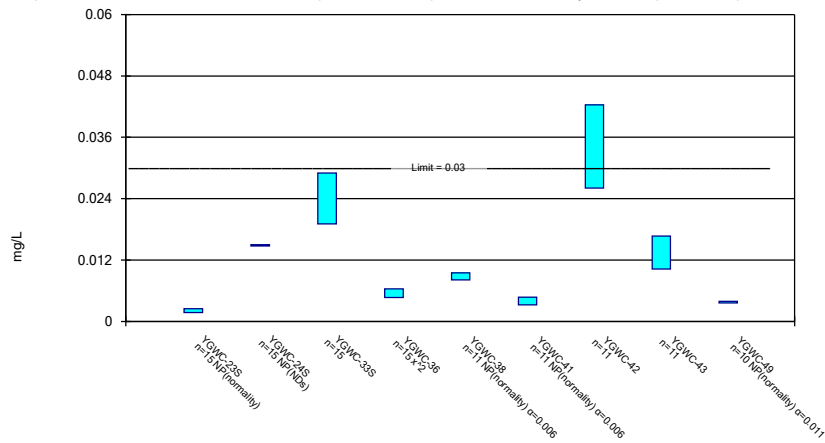
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

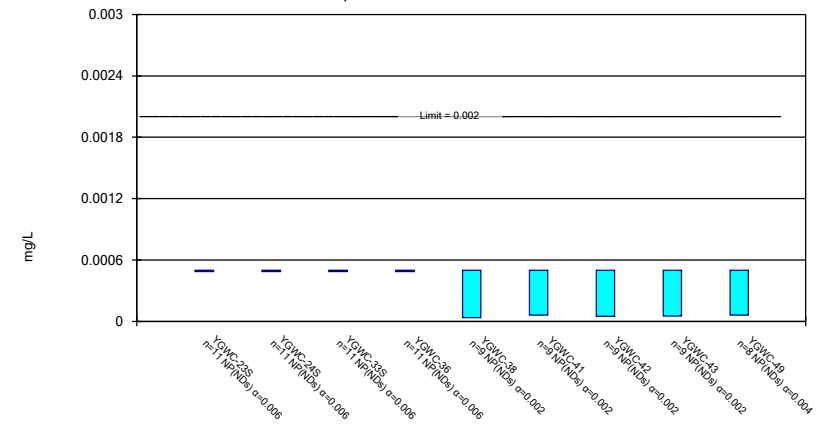
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Non-Parametric Confidence Interval

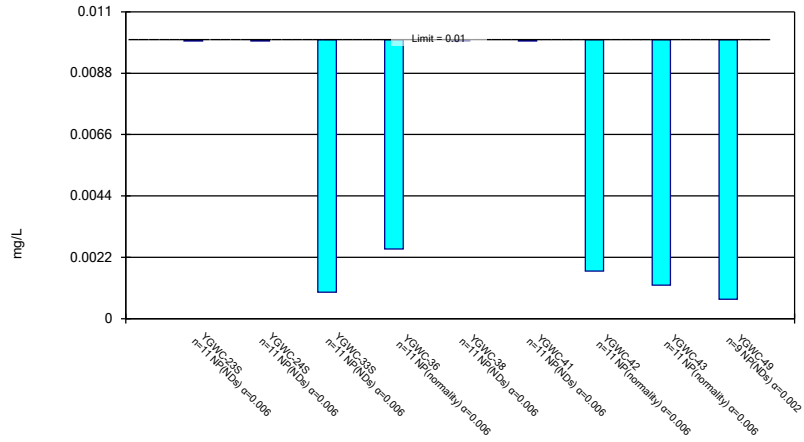
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
 Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Non-Parametric Confidence Interval

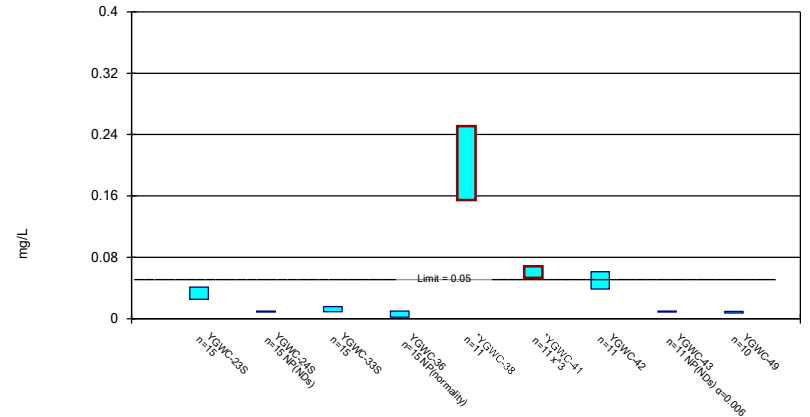
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

Parametric and Non-Parametric (NP) Confidence Interval

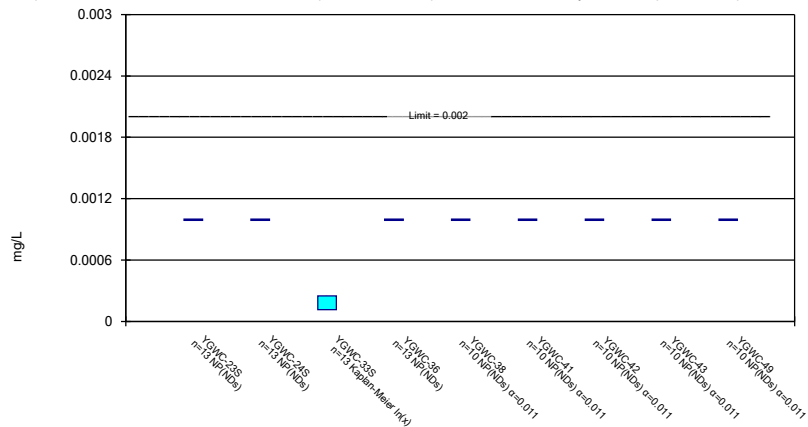
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

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: Thallium Analysis Run 5/5/2020 4:42 PM View: Confidence Intervals
Plant Yates Client: Southern Company Data: Plant Yates AMA-R6

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A decorative graphic consisting of three thin orange lines. One is a horizontal line extending across the width of the page. Two others are parallel diagonal lines extending from the bottom left towards the top right.