Prepared for

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2022 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

PLANT HAMMOND ASH POND 2 (AP-2)

Prepared by

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Project Number GW6581B

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CERTIFICATION STATEMENT

This *2022 Semiannual Groundwater Monitoring and Corrective Action Report, Plant Hammond – Ash Pond 2 (AP-2)* has been prepared in compliance with the United States Environmental Protection Agency Coal Combustion Residual Rule [40 Code of Federal Regulations 257 Subpart D], specifically § 257.90(e), and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g).

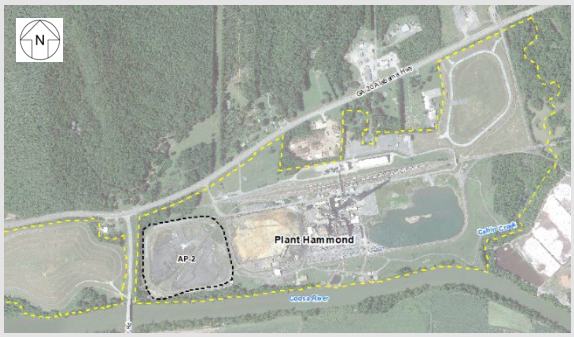
Whitney B. Law
Georgia Professional Engineer No. 36641

August 31, 2022
Date

SUMMARY

This summary of the *2022 Semiannual Groundwater Monitoring and Corrective Action Report* provides the status of the groundwater monitoring and corrective action program for the reporting period through July 2022 (referred to herein as the 2022 semiannual reporting period) at Georgia Power Company's (Georgia Power's) Plant Hammond Ash Pond 2 (AP-2) (the Site). This summary was prepared by Geosyntec Consultants, Inc. (Geosyntec) on behalf of Georgia Power to meet the requirements listed in Part A, Section 6[1] of the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (federal CCR Rule) (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Hammond is located at 5963 Alabama Highway SW, approximately 10 miles west of Rome in Floyd County, Georgia. Dewatered ash from AP-2 is excavated and transported to the nearby Huffaker Road facility, a permitted solid waste disposal location owned and operated by Georgia Power. The Site is located on the southwestern portion of the Plant Hammond property. The Georgia Environmental Protection Division (GA EPD) approved Closure permit No. 057-024D(CCR) for AP-2 on June 22, 2020.



Plant Hammond and the Site

Groundwater at the Site is monitored using a comprehensive monitoring well network that meet federal and state monitoring requirements. Routine sampling and reporting began after the background groundwater conditions were established between May 2016 and May 2017. Based on groundwater conditions at the Site, an assessment monitoring program and assessment of corrective measures program were established in January 2018 and January 2019, respectively. During the 2022 semiannual reporting period, the Site remained in assessment monitoring as corrective measures are being evaluated.

During the 2022 semiannual reporting period, Geosyntec conducted one groundwater sampling event in January/February 2022. Groundwater samples were submitted to Pace Analytical Services, LLC, for analysis. Per the federal CCR Rule, groundwater data from the January/February 2022 event were evaluated in accordance with the certified

[1] 80 FR 21468, Apr. 17, 2015, as amended at 81 FR 51807, Aug. 5, 2016; 83 FR 36452, July 30, 2018; 85 FR 53561, Aug. 28, 2020

statistical methods. That evaluation showed statistically significant values of Appendix III[2] and Appendix IV[3] constituents in excess of established groundwater protection standards (GWPS) in select monitoring wells, as summarized in the table below for the 2022 semiannual reporting period. On February 22, 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPS where a maximum contaminant level (MCL) has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L), except when site specific background concentrations of these constituents is higher. Statistical evaluation for the January/February 2022 event was updated to reflect these changes.

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program for the 2022 semiannual reporting period, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to Georgia Power's CCR Rule Compliance website and provided to GA EPD semiannually. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on August 31, 2022, under separate cover.

[2] Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)
[3] Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and combined radium 226 + 228

Appendix III Constituent	January/February 2022
Boron	HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18
Calcium	HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18
Chloride	HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18
pH	HGWC-18
Sulfate	HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18
Total Dissolved Solids	HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18
Appendix IV Constituent[4]	**January/February 2022**
Cobalt	HGWC-18, MW-33, MW-35

[4] A statistically significant level (SSL)-related constituent is determined by comparing the confidence intervals developed to either the constituent's maximum contaminant level (MCL), if available; where an MCL has not been established, then a CCR-rule specific GWPS; or background concentrations for constituents where the concentration is greater than the MCL or rule specified GWPS.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Assessment of Corrective Measures
AP-2	Ash Pond 2
CCR	coal combustion residuals
CFR	Code of Federal Regulations
cm/sec	centimeters per second
DO	dissolved oxygen
ft/day	feet per day
ft/ft	feet per foot
GA-20	Georgia Highway 20
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
GSC	Groundwater Stats Consulting
GWPS	groundwater protection standard
HAR	Hydrogeologic Assessment Report
K_h	horizontal hydraulic conductivity
MCL	Maximum Contaminant Level
mg/L	milligram per liter
n_e	effective porosity
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity units
ORP	oxidation-reduction potential
Pace Analytical	Pace Analytical Services, LLC.
PE	professional engineer
PL	prediction limit
QA/QC	Quality Assurance/Quality Control
SSI	statistically significant increase
SSL	statistically significant level
s.u.	standard unit
Unified Guidance	Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (federal CCR Rule) [40 Code of Federal Regulations (CFR) Part 257, Subpart D] and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, Geosyntec Consultants, Inc. (Geosyntec) has prepared this *2022 Semiannual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power) Plant Hammond (Site) Ash Pond 2 (AP-2) for the reporting period of January through July 2022 (referred to herein as the 2022 semiannual reporting period).

Groundwater monitoring and reporting for the CCR unit is performed in accordance with the monitoring requirements of § 257.90 through 257.95 of the federal CCR Rule, and GA EPD Rules for Solid Waste Management 391-3-4-.10(6). To specify groundwater monitoring requirements, GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the federal CCR Rule. For ease of reference, the federal CCR Rule is cited within this report in lieu of citing both sets of regulations.

Due to statistically significant levels (SSLs) of cobalt identified in the *2018 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2019a), Georgia Power initiated an assessment of corrective measures (ACM) program for AP-2 in January 2019. Pursuant to § 257.96(b), Georgia Power continues to monitor groundwater associated with AP-2 in accordance with the assessment monitoring program established for the unit in 2018, including annual and semiannual monitoring and reporting pursuant to § 257.90 through § 257.95 of the federal CCR Rule, and GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a).

The current reporting period groundwater data indicate that the SSLs of cobalt are horizontally and vertically delineated to below their corresponding GWPS.

1.1 Site Description and Background

Plant Hammond is located in Floyd County, Georgia, approximately 10 miles west of Rome and is bordered by Georgia Highway 20 (GA-20) on the north, the Coosa River on the south, Cabin Creek and industrial land on the east, and sparsely populated, forested, rural and industrial land on the west (**Figure 1**). The physical address of the plant is 5963 Alabama Highway, Rome, Georgia, 30165.

Plant Hammond was a four-unit, coal-fired electric generating facility. All four units at Plant Hammond were retired on July 29, 2019 and no longer produce electricity.

AP-2 is a 21-acre surface impoundment. Dewatered ash from AP-2 is excavated and transported to the nearby Huffaker Road facility, a permitted solid waste disposal location owned and operated by Georgia Power. Georgia Power will close AP-2 through removal of the CCR material from the CCR unit. The Closure Plan submitted to GA EPD as part of the closure permit application package describes the closure activities and requirements in accordance with § 257.102. The proposed closure by removal approach provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. Details of the closure approach are provided in the Initial Written Closure Plan and published in 2016 to Georgia Power's CCR Rule Compliance website. Closure permit No. 057-024D(CCR) was approved by GA EPD on June 22, 2020.

1.2 Regional Geology and Hydrogeologic Setting

The following section summarizes the geologic and hydrogeologic conditions at AP-2 as described in the *Hydrogeologic Assessment Report Revision 01 – AP-2* (HAR Rev 01) submitted to GA EPD in December 2019 in support of the AP-2 solid waste handling permit (Geosyntec, 2019c).

1.2.1 Regional and Site Geology

The Site is located within the Great Valley District of the Valley and Ridge Physiographic Province (Valley and Ridge) in northwest Georgia. The Valley and Ridge is characterized by Paleozoic sedimentary rocks that have been folded and faulted into the ridges and valleys that gave this region its name. Geologic mapping performed at the Site by Petrologic Solutions, Inc., under the direction of Golder (Golder, 2018), indicates that AP-2 is underlain by the lower units of the Cambrian age Conasauga Formation, consisting of mostly calcareous shale. Based on review of subsurface investigations at AP-2, the bedrock was identified as predominantly calcareous shale and fissile black shale. AP-2 is underlain primarily by five lithologic units: (i) terrace alluvium; (ii) colluvium; (iii) residuum; (iv) partially weathered shale bedrock; and (v) unweathered shale bedrock.

Based on subsurface investigations, the alluvial deposits generally grade from a silt and silty clay to a clayey sand and silty sand to a sand and gravelly sand at depth. The colluvium consists of silty sand, silty clay with angular and sub-rounded chert fragments,

and dolomite, sandstone, and shale fragments. Residual or native soils have been derived from the in-place weathering of the shale bedrock. The residuum is generally described as brown to yellow brown firm clayey silt with weathered shale fragments. The partially weathered shale zone occurs as an intermediate weathering stage between the residuum and the unweathered shale bedrock. The weathered material is described as black to dark gray to dark red hard, fissile shale and claystone. The unweathered shale bedrock was not encountered or directly observed in the historical borings advanced at the Site. However, based on geologic conditions in the region, weathering, fracturing and jointing decreases with depth, and the weathered rock material grades into competent bedrock.

1.2.2 Hydrogeologic Setting

The uppermost aquifer at AP-2 is a regional groundwater aquifer that occurs primarily in the alluvial, colluvial, and residuum and within the weathered and fractured bedrock. The movement of groundwater in the soil can be characterized as low-to moderate permeability, porous media flow based on hydraulic field testing at the Site (slug testing). The groundwater flow in the shallow underlying bedrock is characterized as fracture flow and is expected to be very low permeability due to the preponderance of shale beneath AP-2. The regional groundwater flow direction is expected to be from north to south; however, the local flow direction beneath AP-2 is predominantly east to west with an additional southerly component. Under post-closure conditions, the groundwater flow direction is anticipated to more closely resemble the regional flow regime (north to south toward the Coosa River).

1.3 Groundwater Monitoring Well Network

In accordance with § 257.91, a groundwater monitoring system was installed at AP-2 that consists of a sufficient number of wells installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer to represent the groundwater quality both upgradient of the units (i.e., background conditions) and passing the waste boundary of the units. The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of site-specific hydrogeologic conditions.

As part of the assessment monitoring program, delineation wells have been installed since 2018 to characterize the nature and extent of cobalt and molybdenum in groundwater downgradient of AP-2. Pursuant to § 257.95(g)(1)(iv), the wells classified as “delineation

wells" will continue to be sampled concurrently with the compliance monitoring well network as part of the ongoing assessment groundwater monitoring program.

An on-site network of piezometers is used to gauge water levels to define groundwater flow direction and gradients. The piezometers may be sampled as needed to support the ACM program.

The locations of the compliance monitoring wells, delineation wells, and piezometers are shown on **Figure 2**; well and piezometer construction details are listed in **Table 1**.

2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with § 257.90(e), the following describes monitoring-related activities performed during the 2022 semiannual reporting period and discusses any change in status of the monitoring program. Groundwater sampling was performed in accordance with § 257.93.

2.1 Monitoring Well Installation and Maintenance

One piezometer (MW-52) was installed in January 2022 to provide additional data to characterize groundwater quality and flow conditions upgradient of AP-2. A well installation report that includes detailed boring and well construction logs for the installation of MW-52 is provided in **Appendix A**. The installation report was submitted to GA EPD under separate cover in June 2022 (Geosyntec, 2022a).

The well and piezometer networks are inspected semiannually to evaluate if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In January/February 2022, the networks were inspected, necessary corrective actions were identified and subsequently completed, as documented in **Appendix B**. This documentation was performed under the direction of a professional geologist or engineer registered in the State of Georgia.

2.2 Assessment Monitoring

Georgia Power initiated an assessment monitoring program for groundwater at AP-2 in January 2018. Statistical analyses of the 2018 assessment monitoring groundwater data identified SSLs of cobalt in AP-2 compliance wells HGWC-15 and HGWC-18 in excess of the state GWPS. Statistical analyses of groundwater data obtained since 2018 has identified SSLs of lead in HGWC-14, HGWC-18, and MW-33, and molybdenum in MW-21D in excess of respective state GWPS, as derived at the individual times of reporting.

Pursuant to § 257.96, an ACM was initiated for AP-2 in January 2019. An *Assessment of Corrective Measures Report – Plant Hammond Ash Pond 1 (AP-1)* (ACM Report) was subsequently prepared for AP-2 (Geosyntec, 2019b) and submitted to GA EPD in June 2019 and posted to Georgia Power's CCR Rule Compliance website in July 2019. A *Draft Remedy Selection Report,* which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on August 31, 2022, under separate cover (Geosyntec, 2022b). In accordance with § 257.96(b), groundwater

continues to be monitored at AP-2 under the assessment monitoring program while the ACM phase is implemented.

In support of the routine assessment monitoring program, the first semiannual assessment monitoring event was conducted in January/February 2022. The number of groundwater samples collected for analysis and the dates the samples were collected at AP-2 during the 2022 semiannual reporting period are summarized in **Table 2**. Details of this event and analytical results are discussed in Section 3.

2.3 Additional Surface Water Sampling

Due to the presence of surface water features immediately downgradient of select wells reporting SSLs, Georgia Power collected surface water samples in January 2022 from three locations in the unnamed creek west of AP-2 (AP2-Up, AP2-Mid, AP2-Down) and four locations in the Coosa River, three of which are pertinent to AP-2 , as shown on **Figure 2** (i.e., H+0.25, H+0.35, H+0.75), to horizontally delineate identified SSLs of Appendix IV constituents in groundwater at AP- 2. The laboratory reports associated with the sampling events are provided in **Appendix C**. Georgia Power will continue collecting the surface water samples semiannually to support ACM efforts.

3.0 SAMPLING METHODOLOGY AND ANALYSES

The following section presents a summary of the field sampling procedures that were implemented, and the groundwater sampling results that were obtained, in connection with the assessment monitoring program conducted at AP-2 during the 2022 semiannual reporting period.

3.1 Groundwater and Surface Water Level Measurement

A synoptic round of depth-to-groundwater-level measurements were recorded from the AP-2 wells and piezometers on January 31, 2022, and used to calculate the corresponding groundwater elevations, which are presented in **Table 3**. The reported elevations are generally representative of the groundwater elevations reported for prior monitoring events.

Surface water elevations were recorded from a surveyed measuring point located midway across the service bridge, located midway along the unnamed creek west of AP-2 ('Unnamed Creek' location), and at the Coosa River staff gauge located downgradient of AP-1, as shown in **Figure 2**.

The groundwater and surface water elevation data were used to prepare a potentiometric surface map for the January/February 2022 event, which is presented on **Figure 3**. Groundwater in the AP-2 area flows under the influence of topography from higher elevations on the northern and eastern side of the Site in a westerly direction beneath AP-2 with a southerly flow component.

3.2 Groundwater Gradient and Flow Velocity

The horizontal groundwater hydraulic gradient within the uppermost aquifer beneath AP- 2 was calculated using the groundwater elevation data from the January/February 2022 event. The hydraulic gradient is commonly calculated between two points along the groundwater flow path perpendicular to groundwater elevation contours. Ideally, this flow path originates and concludes with groundwater elevations reported for two wells, but this may not be feasible and still remain perpendicular to the contours. The hydraulic gradient in this report was calculated between upgradient and downgradient wells selected to provide the most accurate alignment possible relative to the interpreted groundwater flow path. The horizontal hydraulic gradient was calculated across the central portion of AP-2 between MW-18 and HGWC-17. The supporting calculations are presented in **Table 4.** The general trajectory of the flow path used in the calculations

and associated potentiometric contour lines are shown on **Figure 3**. The average hydraulic gradient along the westerly flow path lines for the 2022 semiannual reporting period is 0.010 feet per foot (ft/ft).

The approximate horizontal flow velocity associated with AP-2 was calculated using the following derivative of Darcy's Law. The calculation is presented in **Table 4**.

$$V = \frac{K_h * i}{n_e}$$

where:

V = Groundwater flow velocity $\left(\frac{feet}{day}\right)$

K_h = Horizontal Hydraulic Conductivity $\left(\frac{feet}{day}\right)$

i = Horizontal hydraulic gradient $\left(\frac{feet}{foot}\right) = \frac{h_1 - h_2}{L}$

h_1 and h_2 = Groundwater elevation at location 1 and 2

L = distance between location 1 and 2

n_e = Effective porosity

The horizontal hydraulic conductivity (K_h) measurements were calculated from slug test data collected in AP-2 wells and piezometers. As presented in the HAR Rev 01, results were broadly grouped based on the lithology in which the wells or piezometers were screened. The geometric mean of the K_h values of the alluvium, colluvium, residuum, and partially weathered shale bedrock were used to represent the overall hydraulic conductivity at AP-2 of 5.17 x 10^{-4} centimeters per second (cm/sec) [1.47 feet per day (ft/day)] (Geosyntec, 2019c). An effective porosity value of 0.15 was used to represent average lithologic conditions at AP-2, derived based on review of literature (Kresic, 2007), observed site lithology, and professional judgement. Applying these values and the average hydraulic gradient, the average groundwater flow velocity underneath AP-2 for the 2022 semiannual reporting period was calculated as 0.095 ft/day.

3.3 Groundwater Sampling Procedures

Groundwater samples were collected using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using dedicated bladder pumps

with dedicated tubing, non-dedicated bladder pumps, and peristaltic pumps. For wells sampled with non-dedicated bladder pumps and peristaltic pumps, the pump intake was lowered to the midpoint of the well screen (or as appropriate based on the groundwater level). Non-dedicated bladder pump and peristaltic pump samples were collected using new disposable polyethylene tubing; all non-dedicated tubing was disposed of following the sampling event. All non-disposable equipment was decontaminated before use and between well locations.

An in-situ water quality field meter (Aqua TROLL 400) was used to monitor and record field water quality parameters [i.e., pH, conductivity, dissolved oxygen (DO), temperature, and oxidation reduction potential (ORP)] during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 2020we portable turbidity meter. Groundwater samples were collected once the following stabilization criteria were met:

- pH ± 0.1 standard units (s.u.).
- Conductivity ± 5%.
- ±0.2 mg/L or ±10%, whichever is greater for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only.
- Turbidity measured less than 5 nephelometric turbidity units (NTU) or measured between 5 and 10 NTU following three hours of purging.

Following purging, and once stabilization was achieved, unfiltered samples were collected into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Pace Analytical Services, LLC. (Pace Analytical) in Peachtree Corners, Georgia following chain-of-custody protocol. The field sampling and equipment calibration forms generated during the monitoring event conducted throughout the 2022 semiannual reporting period are provided in **Appendix C**.

3.4 Laboratory Analyses

Laboratory analyses were performed by Pace Analytical, which is accredited by the National Environmental Laboratory Accreditation Program (NELAP). Pace Analytical maintains a NELAP certification for the Appendix III and Appendix IV constituents

analyzed for this project. Analytical methods used for groundwater sample analyses are listed in the analytical laboratory reports included in **Appendix C**.

The groundwater results from the 2022 semiannual assessment monitoring event are summarized in **Table 5**. Surface water analytical results from the January 2022 semiannual monitoring event are summarized in **Table 6**. The Pace Analytical laboratory reports associated with the results presented in **Tables 5** and **6** are provided in **Appendix C**.

3.5 Quality Assurance and Quality Control Summary

Quality assurance/quality control (QA/QC) samples were collected during the groundwater monitoring events in accordance with the site's *Groundwater Monitoring Plan* (Geosyntec, 2021c), and included the following: field duplicates, equipment blanks, and field blank samples. QA/QC samples were collected in appropriately preserved laboratory-provided containers and submitted under the same chain of custody as the primary samples for analysis of the same constituents by Pace Analytical.

In addition to collecting QA/QC samples, the data were validated based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and applicable federal guidance documents (USEPA, 2011; USEPA, 2017). Where necessary, the data were qualified with supporting documentation and justifications. The data are considered usable for meeting project objectives and the results are considered valid. The associated data validation reports are provided in **Appendix C**, along with the laboratory reports.

4.0 STATISTICAL ANALYSIS

The following section summarizes the statistical analysis of Appendix III groundwater monitoring data performed pursuant to § 257.93. In addition, pursuant to § 257.95(d)(2), Georgia Power established GWPS for the Appendix IV constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the 2022 semiannual reporting period. The data were analyzed by Groundwater Stats Consulting (GSC); the reports generated from the analyses are provided in **Appendix D.**

4.1 Statistical Methods

Groundwater data from the 2022 reporting period were statistically analyzed in accordance with the Professional Engineer-certified (PE-certified) Statistical Analysis Method Certification (October 2017, revised January 2020) (ERM, 2017 and Geosyntec, 2020). 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 USEPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (USEPA, 2009).

Appendix III statistical analysis was performed to evaluate if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to evaluate if concentrations statistically exceeded the established GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in statistical analysis package provided in **Appendix D** and summarized in Sections 4.1.1 and 4.1.2. The GWPS were finalized pursuant to § 257.95(d)(2) and presented in **Table 7**. On February 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4.10(6) to incorporate updated Federal GWPS where a maximum contaminant level (MCL) has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L) and molybdenum (0.100 mg/L), except when site specific background concentrations of these constituents are higher. Therefore, the statistical reports and **Table 7** do not differentiate between two sets of GWPS as previously required.

4.1.1 Appendix III Statistical Methods

Based on guidance from GA EPD, statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix III constituents. Interwell PLs pool

upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each constituent. The most recent sample from each downgradient well is compared to the background limit to assess whether there are statistically significant increases (SSIs). An "initial exceedance" occurs when an Appendix III constituent reported in the groundwater of a downgradient compliance monitoring well exceeds the constituent's associated PL. The 1-of-2 resample plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample confirms the initial exceedance by also exceeding the statistical limit. If the resample falls within its respective prediction limit, no exceedance is declared.

4.1.2 Appendix IV Statistical Methods

To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV constituents in each downgradient compliance and delineation monitoring well with a minimum of four samples. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. Due to previous non-routine (or ACM investigation) sampling, some Appendix IV constituents at a well location have differing number of analytical data points.

The confidence intervals are compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If a confidence interval exceeds a GWPS, an SSL exceedance is identified.

USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in § 257.95(h)(1-3), the GWPS is defined by the below criteria. These criteria were adopted into the GA EPD Rules for Solid Waste Management 391-3-4-.10 on February 22, 2022. Therefore, the statistical evaluation for the January/February 2022 event was updated to reflect these changes.

(1) The maximum contaminant level (MCL) established under § 141.62 and § 141.66.

(2) Where an MCL has not been established:

(i) Cobalt 0.006 mg/L;

(ii) Lead 0.015 mg/L;

(iii) Lithium 0.040 mg/L; and

(iv) Molybdenum 0.10 mg/L.

(3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Following the above requirements, GWPS have been established for statistical comparison of Appendix IV constituents and are presented in **Table 7**.

4.2 Statistical Analyses Results

Based on review of the Appendix III statistical analyses presented in **Appendix D**, groundwater conditions have not returned to background and assessment monitoring should continue. Based on review of the statistical analyses, select Appendix IV constituents exceeded the GWPS during the 2022 semiannual reporting period:

4.2.1 January/February 2022 Data

- Cobalt: HGWC-18, MW-33, and MW-35

Wells with SSLs were further evaluated using the Sen's Slope/Mann Kendall trend test (**Appendix D**). A statistically significant decreasing trend was identified for cobalt in HGWC-18. No statistically significant trends were identified for MW-33 and MW-35.

4.2.2 Summary of Statistical Analyses

The SSLs identified for the 2022 semiannual reporting period are generally consistent with previous reporting periods, with the following exception:

- No SSLs of lead were identified in HGWC-14, HGWC-18, and MW-33. Similarly, no SSL of molybdenum was identified in MW-21D. Previously identified SSLs of lead and molybdenum in these wells have at all times complied with the GWPS, as established by GA EPD on February 22, 2022.

5.0 NATURE AND EXTENT

The cobalt SSLs are horizontally and vertically delineated to below the site specific GWPS (0.038 mg/L) in HGWC-18, MW-33, and MW-35. On the northwest side of AP- 2, HGWC-18 is vertically delineated by MW-21D. The conceptual site model on the south side of the pond consists of southerly groundwater flow through alluvium toward the Coosa River. MW-33 is vertically delineated by MW-34D upgradient of the river. However, as groundwater nears the Coosa River, it begins to flow upward and join the Coosa River. As such, to properly characterize the deeper groundwater south of MW-34D as it migrates downgradient, MW-51 was installed with a shallower screen interval to not only horizontally delineate cobalt at MW-35 but also to account for the upward movement of groundwater adjacent to the river. The cobalt groundwater concentration reported for MW-51 (0.031 mg/L) for the January/February semiannual event delineates the horizontal extent of the SSLs of cobalt in MW-33 and MW-35 and the vertical extent of cobalt in MW-35 to below the site derived GWPS. Delineation wells MW-34D and MW- 51 will continue to be sampled to support cobalt delineation, and the data will be statistically evaluated after collecting a minimum of four independent samples (specific to MW-51).

Due to the presence of a surface water feature (unnamed creek) west of AP-2 in the downgradient direction of HGWC-18 (refer to **Figure 2**), installation of additional wells to horizontally characterize this area is infeasible. For this reason, Georgia Power proactively began collecting surface water samples in July 2020. Cobalt was not detected above the laboratory reporting limit (0.0050 mg/L) in surface water samples collected in January 2022 from the three locations in the unnamed creek (AP2-Up, AP2-Mid, AP2-Down) shown on **Figure 2**. No cobalt impacts to surface water have been detected and cobalt observed in HGWC-18 is horizontally delineated.

Surface water samples were also collected from the Coosa River in January 2022. Of the seven sample locations along the Coosa River, three (i.e., H+0.25, H+0.35, H+0.75) are in the vicinity of MW-33 and MW-35 and relevant to conditions at AP-2. These three locations are shown on **Figure 2**. Cobalt was not detected above the laboratory reporting limit (0.0050 mg/L) in any of the Coosa River samples. The Coosa River will continue to be sampled until sufficient data is available to statistically evaluate MW-51 and then only if necessary, based on results of the statistical evaluation. The January 2022 data associated with the unnamed creek and the Coosa River surface water sampling events are presented in **Table 6** and the laboratory reports are included in **Appendix C**.

6.0 MONITORING PROGRAM STATUS

6.1 Assessment Monitoring Status

Pursuant to § 257.96(b), Georgia Power will continue to monitor the groundwater at AP-2 in accordance with the assessment monitoring program regulations of § 257.95 while ACM efforts are implemented to address SSLs of cobalt in select AP-2 wells. Pursuant to § 257. 95(g)(1)(iv), the delineation wells will continue to be sampled as part of the ongoing assessment groundwater monitoring program.

6.2 Assessment of Corrective Measures

During the 2022 semiannual reporting period, a *Draft Remedy Selection Repor*t was prepared in lieu of the *Semiannual Remedy Selection and Design Progress Reports* previously included in the appendix of this semiannual groundwater monitoring and corrective action report. The *Draft Remedy Selection Report* was submitted under separate cover on August 31, 2022. The report summarizes:

- The current groundwater conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Geosyntec, 2019b);
- An assessment of corrective action investigations completed to date;
- An evaluation of each corrective measure retained for further consideration following the completed investigations;
- A comparison of corrective measure options using the comparative criteria such as long- and short-term effectiveness and protectiveness, source control effectiveness, and ease of implementation; and
- A summary of the proposed corrective measure, or measures, for AP-2.

7.0 CONCLUSIONS AND FUTURE ACTIONS

This *2022 Semiannual Groundwater Monitoring and Corrective Action Report* for Plant Hammond AP-2 was prepared to fulfill the requirements of the federal CCR Rule and GA EPD Rules for Solid Waste Management 391-3-4-.10. Statistical analyses of the groundwater monitoring data for AP-2 for the 2022 semiannual reporting period identified the continued presence of SSLs of cobalt in HGWC-18, MW-33, and MW-35. Based on the most current groundwater quality, the SSLs are vertically and horizontally delineated to below the site specific GWPS.

Georgia Power will continue to monitor AP-2 groundwater under the assessment monitoring program as aspects of the ACM program are implemented to address the Appendix IV SSLs. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on August 31, 2022, under separate cover. The next routine semiannual assessment monitoring event for AP- 2 is scheduled for August 2022. The August 2022 assessment monitoring event will include sampling and analysis of all Appendix III and IV constituents.

8.0 REFERENCES

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TABLES

Table 1
Monitoring Well Network Summary
Plant Hammond AP-2, Floyd County, Georgia

Well ID	Hydraulic Location	Installation Date	Northing [(1)]	Easting [(1)]	Ground Surface Elevation (ft)	Top of Casing Elevation [(1)] (ft)	Top of Screen Elevation [(1)] (ft)	Bottom of Screen Elevation [(1)] (ft)	Well Depth (ft BTOC) [(2)]	Screen Interval Length (ft)
Compliance Monitoring Well										
HGWA-1	Upgradient	12/3/2014	1550423.32	1940770.00	592.32	595.21	573.12	563.12	32.49	10
HGWA-2	Upgradient	12/2/2015	1549796.87	1939845.15	585.29	587.92	570.29	560.29	27.95	10
HGWA-3	Upgradient	12/2/2015	1549794.41	1939833.39	585.23	587.74	553.23	543.23	44.51	10
HGWA-4	Upgradient	12/3/2014	1549930.45	1939385.45	584.94	587.60	572.24	562.24	25.76	10
HGWA-5	Upgradient	12/10/2015	1548633.33	1937184.17	580.52	583.24	564.92	554.92	28.72	10
HGWA-6	Upgradient	12/11/2015	1548636.35	1937177.73	580.72	583.38	543.72	533.72	49.66	10
HGWA-42D	Upgradient	8/27/2020	1549363.72	1938443.86	583.39	586.17	528.39	518.39	68.03	10
HGWA-43D	Upgradient	8/26/2020	1550422.85	1940753.80	592.08	595.08	544.08	534.08	61.25	10
HGWA-44D	Upgradient	8/25/2020	1550409.13	1940756.18	592.01	594.79	491.76	481.76	113.28	10
HGWC-14	Downgradient	10/16/2014	1547998.96	1938406.27	594.67	597.25	564.67	554.67	42.98	10
HGWC-15	Downgradient	10/20/2014	1547875.33	1937854.92	578.73	581.49	553.93	543.93	37.96	10
HGWC-16	Downgradient	10/21/2014	1548209.83	1937540.33	577.36	580.02	557.36	547.36	33.06	10
HGWC-17	Downgradient	10/22/2014	1548449.71	1937538.98	581.51	584.30	566.91	556.91	27.79	10
HGWC-18	Downgradient	10/22/2014	1548821.27	1937558.32	581.36	584.18	566.86	556.86	27.71	10
Piezometer										
MW-8	Downgradient	10/29/2014	1548171.86	1940016.70	584.25	586.93	565.05	555.05	32.72	10
MW-9	Downgradient	10/29/2014	1548131.38	1938922.16	588.42	590.95	569.12	559.12	32.95	10
MW-12	Downgradient	10/21/2014	1547853.78	1937525.46	580.59	583.27	555.79	545.79	38.94	10
MW-16	Downgradient	10/27/2014	1549104.17	1937940.06	571.70	574.22	562.20	552.20	23.42	10
MW-17	Downgradient	10/28/2014	1549163.28	1938345.81	583.68	586.78	568.98	558.98	29.09	10
MW-18	Downgradient	10/29/2014	1548984.15	1938712.73	589.75	592.28	571.05	561.05	32.42	10
MW-33	Downgradient	11/21/2019	1547973.50	1938412.13	591.19	593.92	566.60	556.60	37.72	10
MW-34D	Downgradient	5/6/2020	1547996.82	1938392.20	593.83	596.51	530.48	520.48	73.68	10
MW-35	Downgradient	5/13/2020	1547905.33	1938417.82	571.88	574.40	558.70	548.70	23.52	10
MW-36D	Downgradient	5/7/2020	1548435.43	1937538.19	581.44	584.10	534.12	524.12	57.65	10
MW-51	Downgradient	7/22/2021	1547872.35	1938421.46	571.57	574.54	556.47	546.47	28.90	10
MW-52	Upgradient	1/25/2022	1549277.59	1938398.82	583.25	586.11	573.29	563.29	20.29	10
Delineation Monitoring Well										
MW-21D	Downgradient	11/19/2018	1548814.86	1937555.78	581.16	583.84	542.36	532.36	51.88	10
MW-22	Downgradient	11/15/2018	1547854.68	1937832.04	576.05	578.51	551.45	541.45	37.47	10
MW-23D	Downgradient	11/15/2018	1547876.55	1937843.89	579.06	581.30	529.46	519.46	62.24	10
MW-37D	Downgradient	5/8/2020	1548803.01	1937551.05	580.95	583.58	514.65	504.65	76.63	10

Notes:
ft = feet
BTOC = below top of casing
(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet. Elevations referenced to the North American Vertical Datum of 1988 (NAVD88). Survey completed by GEL Solutions dated May 19, 2020 and September 10, 2020 (for HGWA-42D, HGWA-43D, and HGWA-44D), September 8, 2021 (for MW-51), and April 11, 2022 (for MW-52).
(2) Total well depth accounts for sump if data provided on well construction logs.

Table 2

Groundwater Sampling Event Summary
Plant Hammond AP-2, Floyd County, Georgia

Well ID	Hydraulic Location	January 31 - February 10, 2022	Status of Monitoring Well
Purpose of Sampling Event:		**Assessment**	
Compliance Monitoring Well			
HGWA-1	Upgradient	X	Assessment
HGWA-2	Upgradient	X	Assessment
HGWA-3	Upgradient	X	Assessment
HGWA-4	Upgradient	X	Assessment
HGWA-5	Upgradient	X	Assessment
HGWA-6	Upgradient	X	Assessment
HGWA-42D	Upgradient	X	Assessment
HGWA-43D	Upgradient	X	Assessment
HGWA-44D	Upgradient	X	Assessment
HGWC-14	Downgradient	X	Assessment
HGWC-15	Downgradient	X	Assessment
HGWC-16	Downgradient	X	Assessment
HGWC-17	Downgradient	X	Assessment
HGWC-18	Downgradient	X	Assessment
Piezometer			
MW-33	Downgradient	X	Assessment
MW-35	Downgradient	X	Assessment
MW-51	Downgradient	X	Assessment
Delineation Monitoring Well			
MW-21D	Downgradient	X	Assessment
MW-22	Downgradient	X	Assessment
MW-23D	Downgradient	X	Assessment
MW-34D	Downgradient	X	Assessment
MW-37D	Downgradient	X	Assessment

Table 3
Summary of Groundwater and Surface Water Elevations
Plant Hammond AP-2, Floyd County, Georgia

Well ID	Top of Casing Elevation [1] (ft)	January 31, 2022	
		Depth to Water (ft BTOC)	Groundwater Elevation[1] (ft)
Compliance Monitoring Wells			
HGWA-1	595.21	13.02	582.19
HGWA-2	587.92	8.18	579.74
HGWA-3	587.74	7.73	580.01
HGWA-4	587.60	6.25	581.35
HGWA-5	583.24	5.52	577.72
HGWA-6	583.38	4.99	578.39
HGWA-42D	586.17	11.35	574.82
HGWA-43D	595.08	12.97	582.11
HGWA-44D	594.79	13.05	581.74
HGWC-14	597.25	28.39	568.86
HGWC-15	581.49	17.69	563.80
HGWC-16	580.02	12.96	567.06
HGWC-17	584.30	18.14	566.16
HGWC-18	584.18	18.51	565.67
Piezometers			
MW-8	586.93	19.65	567.28
MW-9	590.95	15.65	575.30
MW-12	583.27	20.71	562.56
MW-16	574.22	7.12	567.10
MW-17	586.78	10.28	576.50
MW-18	592.28	13.55	578.73
MW-33	593.92	25.66	568.26
MW-34D	596.51	32.01	564.50
MW-35	574.40	10.95	563.45
MW-36D	584.10	17.25	566.85
MW-51	574.54	11.46	563.08
MW-52	586.11	10.66	575.45
Delineation Monitoring Wells			
MW-21D	583.84	17.50	566.34
MW-22	578.51	15.76	562.75
MW-23D	581.30	19.16	562.14
MW-37D	583.58	17.20	566.38
Surface Water Level Gauge Point			
Coosa River [2]	--	--	560.40
Unnamed Creek	580.14[3]	15.14	565.00

Notes:
-- = not measured or not applicable
ft = feet
BTOC = below top of casing
(1) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88). Survey data dated May 19, 2020, September 10, 2020 (for HGWA-42D HGWA-43D, and HGWA-44D), September 8, 2021 (for MW-51), and April 11, 2022 (for MW-52).
(2) Coosa River staff gauge located approximately 3,250 feet upstream of the confluence of the Unnamed Creek with the Coosa River.
(3) Surveyed reference point located midway across the service bridge located immediately west of AP-2 (Figure 2). The value presented in the "Depth to Water" column represents the measured distance from the bridge to the top of water, in feet.

Table 4

Horizontal Groundwater Gradient and Flow Velocity Calculations

Plant Hammond AP-2, Floyd County, Georgia

	January 31, 2022			
Flow Path Direction [1]	**h_1 (ft)**	**h_2 (ft)**	**L (ft)**	**i (ft/ft)**
Westerly Flow Path (MW-18 to HGWC-17)	578.73	566.16	1,300	0.010

			January 2022	
Flow Path Direction [1]	**K_h (ft/d)**	**n_e**	**i (ft/ft)**	**V (ft/d)[2]**
Westerly Flow Path (MW-18 to HGWC-17)	1.47	0.15	0.010	0.095

Notes:

ft = feet

ft/day = feet per day

ft/ft = feet per foot

h_1 and h_2 = groundwater elevation at location 1 and 2

$i = h_1-h_2/L$ = horizontal hydraulic gradient

K_h = horizontal hydraulic conductivity

L = distance between location 1 and 2 along the flow path

n_e = effective porosity

V = groundwater flow velocity

(1) Flow path direction relative to the orientation of AP-2 and illustrated on Figure 3 of associated report.

(2) Groundwater flow velocity equation: $V = [K_h * i] / n_e$

Table 5
Summary of Groundwater Analytical Data
Plant Hammond AP-2, Floyd County, Georgia

	Well ID:	HGWA-1	HGWA-2	HGWA-3	HGWA-4	HGWA-5	HGWA-6	HGWA-42D	HGWA-43D	HGWA-44D	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18
	Sample Date:	2/1/2022	2/1/2022	2/1/2022	2/7/2022	2/7/2022	2/7/2022	2/7/2022	2/1/2022	2/1/2022	2/9/2022	2/8/2022	2/8/2022	2/8/2022	2/8/2022
	Parameter [1,2,3]														
APPENDIX III	Boron	0.016 J	0.056	0.011 J	0.017 J	<0.0086	0.019 J	0.047	0.050	0.44	9.9	1.9	2.6	7.8	8.1
	Calcium	106	27.2	85.1	5.9	30.0	53.4	48.7	55.9	24.8	571	186	218	280	418
	Chloride	7.5	7.0	5.7	2.4	1.4	1.1	3.1	4.1	44.8	174	76.6	96.4	117	105
	Fluoride	0.064 J	<0.050	<0.050	<0.050	<0.050	<0.050	0.085 J	0.19	0.96	0.053 J	<0.050	<0.050	0.055 J	0.19
	pH	7.19	5.24	7.45	5.24	6.51	7.65	7.85	7.52	8.25	4.97	6.04	7.18	6.42	4.59
	Sulfate	43.7	67.1	46.0	2.9	20.6	33.0	10.4	37.5	56.3	1190	360	238	364	960
	TDS	270	156	350	54.0	135	224	190	156	444	2310	866	852	1160	1770
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	0.0014 J	<0.00078	<0.00078	0.0013 J	<0.00078	0.0020 J	<0.00078	<0.00078	<0.00078
	Arsenic	0.0016 J	0.0023 J	0.0024 J	<0.0011	<0.0011	<0.0011	<0.0011	0.0036 J	0.0025 J	0.0077	<0.0011	<0.0011	0.0017 J	0.0050 J
	Barium	0.031	0.13	0.12	0.028	0.038	0.18	0.18	0.29	0.23	0.017	0.0098	0.10	0.021	0.020
	Beryllium	<0.000054	0.00020 J	<0.000054	0.00017 J	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	0.00056	<0.000054	<0.000054	<0.000054	0.0026
	Cadmium	<0.00011	0.00017 J	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.0011	<0.00011	<0.00011	0.00076
	Chromium	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.0013 J	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
	Cobalt	<0.00039	0.025	<0.00039	0.00068 J	0.00055 J	<0.00039	<0.00039	<0.00039	<0.00039	0.038	0.0081	<0.00039	0.0066	0.16
	Fluoride	0.064 J	<0.050	<0.050	<0.050	<0.050	<0.050	0.085 J	0.19	0.96	0.053 J	<0.050	<0.050	0.055 J	0.19
	Lead	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	0.0014	<0.00089	<0.00089	<0.00089	0.00090 J
	Lithium	0.0011 J	0.0017 J	0.0037 J	0.0013 J	0.0029 J	0.0097 J	0.0097 J	0.0024 J	0.048	<0.00073	0.014 J	0.0034 J	0.0014 J	0.010 J
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	0.00099 J	0.0036 J	0.0055 J	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074
	Comb. Radium 226/228	0.143 U	0.588 U	0.266 U	0.0978 U	0.106 U	0.346 U	0.0660 U	1.12	0.665 U	0.346 U	0.0242 U	0.168 U	1.00 U	0.930 U
	Selenium	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	0.0047 J	<0.0014	<0.0014	<0.0014	0.0082
	Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	0.00025 J	<0.00018	<0.00018	<0.00018	<0.00018

Notes:

< = Indicates the parameter was not detected above the analytical MDL.
J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).
TDS = Total dissolved solids
U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228).
(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).
(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.
(3) The pH value presented was recorded at the time of sample collection in the field.

Table 5
Summary of Groundwater Analytical Data
Plant Hammond AP-2, Floyd County, Georgia

	Well ID:	MW-21D	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D	MW-51
	Sample Date:	2/8/2022	2/8/2022	2/10/2022	2/8/2022	2/9/2022	2/8/2022	2/8/2022	2/8/2022
	Parameter [1,2,3]								
APPENDIX III	Boron	5.9	3.2	3.2	8.4	9.6	10.8	0.14	10.5
	Calcium	366	221	288	548	557	519	167	537
	Chloride	196	110	138	166	251	202	151	194
	Fluoride	<0.050	<0.050	<0.050	0.14	0.051 J	0.065 J	0.055 J	0.078 J
	pH	7.09	5.37	6.87	4.42	7.21	4.86	7.63	6.57
	Sulfate	779	449	430	1220	1050	1190	248	1150
	TDS	1810	1070	1260	2480	2260	2410	882	2430
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	0.0029 J	<0.00078	<0.00078
	Arsenic	<0.0011	<0.0011	<0.0011	0.0069	0.0054	0.0072	<0.0011	0.0046 J
	Barium	0.033	0.014	0.050	0.020	0.04	0.023	0.11	0.046
	Beryllium	<0.000054	0.000079 J	<0.000054	0.00087 J	0.000065 J	0.00070 J	<0.000054	0.00011 J
	Cadmium	<0.00011	0.0020	0.00024 J	0.00013 J	0.00072	0.0015	<0.00011	0.00024 J
	Chromium	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
	Cobalt	<0.00039	0.034	0.0010 J	0.048	0.0065	0.090	<0.00039	0.031
	Fluoride	<0.050	<0.050	<0.050	0.14	0.051 J	0.065 J	0.055 J	0.078 J
	Lead	<0.00089	<0.00089	<0.00089	0.0014	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	0.022 J	0.0011 J	0.0029 J	0.0010 J	0.0022 J	0.0039 J	0.029 J	0.0010 J
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	0.00014 J	<0.00013	<0.00013
	Molybdenum	0.016	<0.00074	0.0034 J	<0.00074	<0.00074	<0.00074	0.0070 J	<0.00074
	Comb. Radium 226/228	0.463 U	0.0657 U	0.919 U	0.967 U	0.297 U	1.38	0.345 U	0.431 U
	Selenium	<0.0014	<0.0014	<0.0014	0.0078	<0.0014	0.0083	<0.0014	<0.0014
	Thallium	<0.00018	<0.00018	<0.00018	0.00025 J	<0.00018	<0.00018	<0.00018	<0.00018

Table 6

Summary of Surface Water Sampling Analytical Data
Plant Hammond AP-2, Floyd County, Georgia

		Unnamed Creek Sample Locations[3]			Coosa River Sample Locations[3]		
Sample ID:		**AP2-Up**	**AP2-Mid**	**AP2-Down**	**H+0.25**	**H+0.35**	**H+0.75**
Sample Date:		**1/24/2022**	**1/24/2022**	**1/24/2022**	**1/24/2022**	**1/24/2022**	**1/24/2022**
Parameter[1,2]							
APP. III	**Boron**	<0.040	0.043	0.041	<0.040	<0.040	<0.040
	Calcium	28.8	31.9	31.9	18.4	17.7	18.0
	Chloride	1.2	1.9	2.1	5.0	5.0	4.9
	Fluoride	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	pH	8.35	7.47	7.2	7.43	7.14	7.22
	Sulfate	6.0	11.4	11.6	7.8	8.3	9.1
	TDS	102.0	95.0	117.0	93.0	108.0	98.0
APP. IV	**Cobalt**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Fluoride	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Lithium	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
	Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
GEOCHEM	**Bicarbonate Alkalinity**	75.8	75.5	76.4	56.4	55.4	54.1
	Total Alkalinity	75.8	75.5	76.4	56.4	55.4	54.1
	Magnesium	2.7	3.0	3.1	5.1	4.8	4.9
	Potassium	0.56	0.6	0.62	1.9	1.7	1.9
	Sodium	1.9	1.9	1.9	5.6	5.5	5.9

Notes:

-- = Parameter was not analyzed.

< = Indicates the parameter was not detected above the analytical reporting limit (RL).

TDS = Total dissolved solids

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L).

(2) Metals were analyzed by EPA Method 6010D/6020B, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C, and alkalinity by SM4500-CO2-D.

(3) Refer to included Figure 2 for locations. Sample locations are presented as positioned relative to the plant, beginning with upstream locations.

Table 7

Summary of Background Concentrations and Groundwater Protection Standards
Plant Hammond AP-2, Floyd County, Georgia

Analyte	Units	MCL	CCR-Rule Specified (1)	Background Limit (2)	GWPS (3)
Antimony	mg/L	0.006		0.003	0.006
Arsenic	mg/L	0.01		0.005	0.01
Barium	mg/L	2		0.46	2
Beryllium	mg/L	0.004		0.0005	0.004
Cadmium	mg/L	0.005		0.0005	0.005
Chromium	mg/L	0.1		0.0019	0.1
Cobalt	mg/L	N/A	0.006	0.038	0.038
Fluoride	mg/L	4		0.96	4
Lead	mg/L	N/A	0.015	0.001	0.015
Lithium	mg/L	N/A	0.04	0.048	0.048
Mercury	mg/L	0.002		0.0002	0.002
Molybdenum	mg/L	N/A	0.1	0.01	0.1
Selenium	mg/L	0.05		0.005	0.05
Thallium	mg/L	0.002		0.001	0.002
Combined Radium-226/228	pCi/L	5		1.65	5

Notes:

mg/L = milligrams per liter

pCi/L = picocuries per liter

MCL = Maximum Contaminant Level

CCR = Coal Combustion Residuals

GWPS = Groundwater Protection Standard

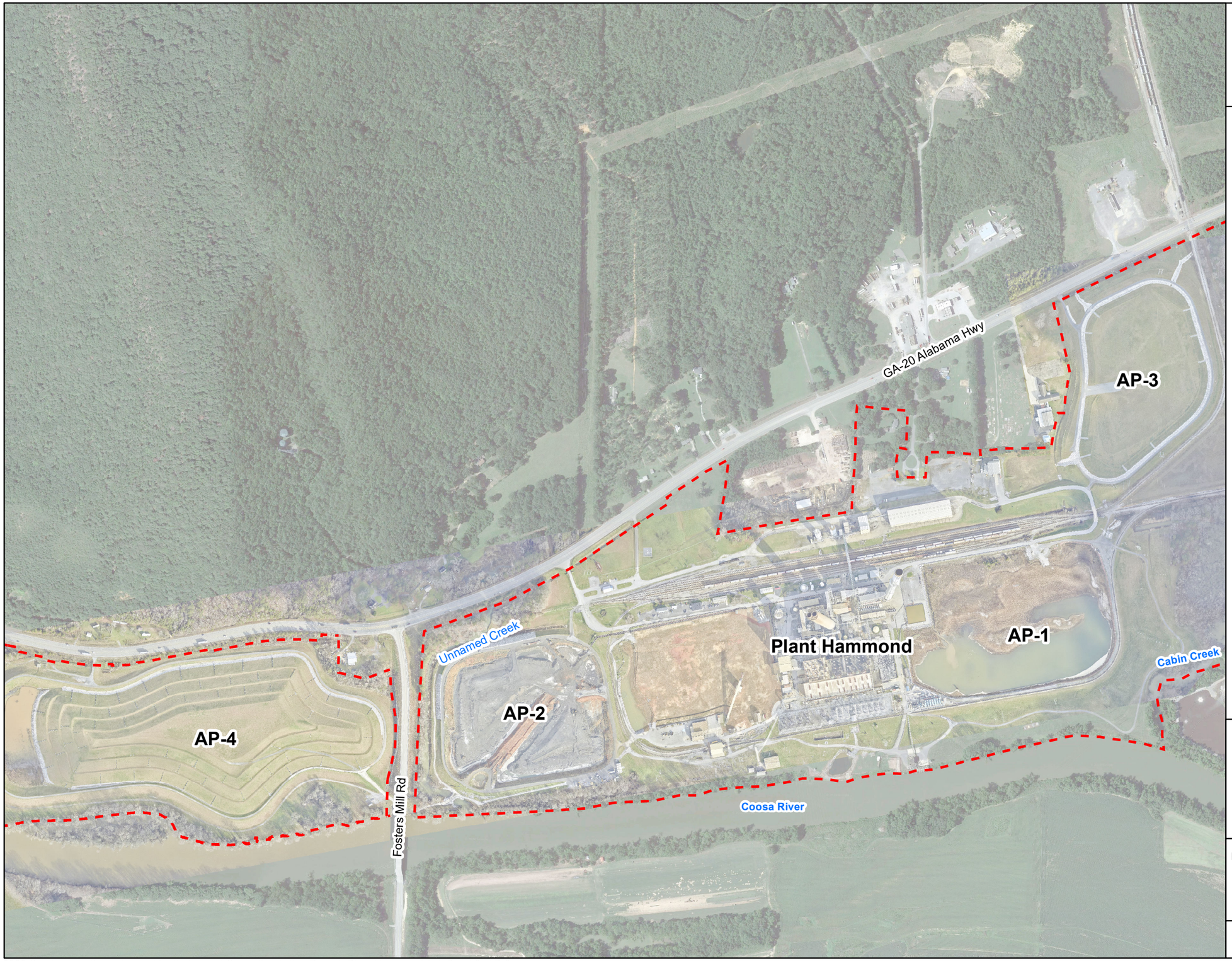
N/A = Not Applicable

(1) On February 22, 2022, the Georgia Environmental Protection Division (GA EPD) adopted the federally promulgated GWPS for cobalt, lithium, lead, and molybdenum.

(2) The background limits were used when determining the GWPS under 40 CFR 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a).

(3) Under 40 CFR 257.95(h)(1-3) the GWPS is: (i) the maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title; (ii) where an MCL has not been established a rule-specific GWPS; or (iii) background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

FIGURES



N

LEGEND

Plant Hammond Property Boundary

Note:
1. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 400 800 1,600

SCALE IN FEET

SITE LOCATION MAP

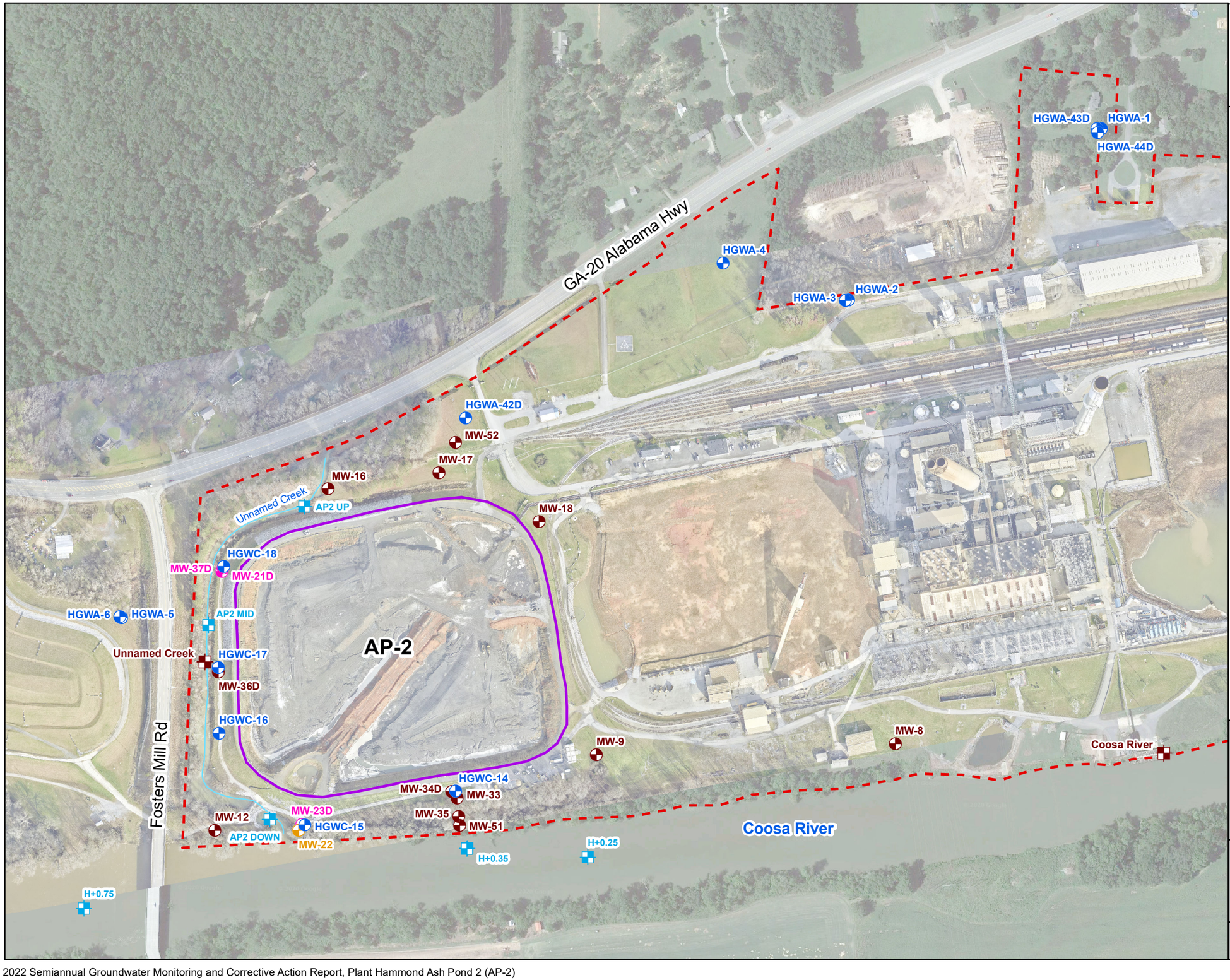
GEORGIA POWER COMPANY
PLANT HAMMOND AP-2
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 1



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Surface Water Level Gauge Point
- Surface Water Sample Point
- Unnamed Creek
- Approximate AP-2 Boundary
- Plant Hammond Property Boundary

Notes:
1. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

MONITORING WELL NETWORK AND SAMPLING LOCATION MAP

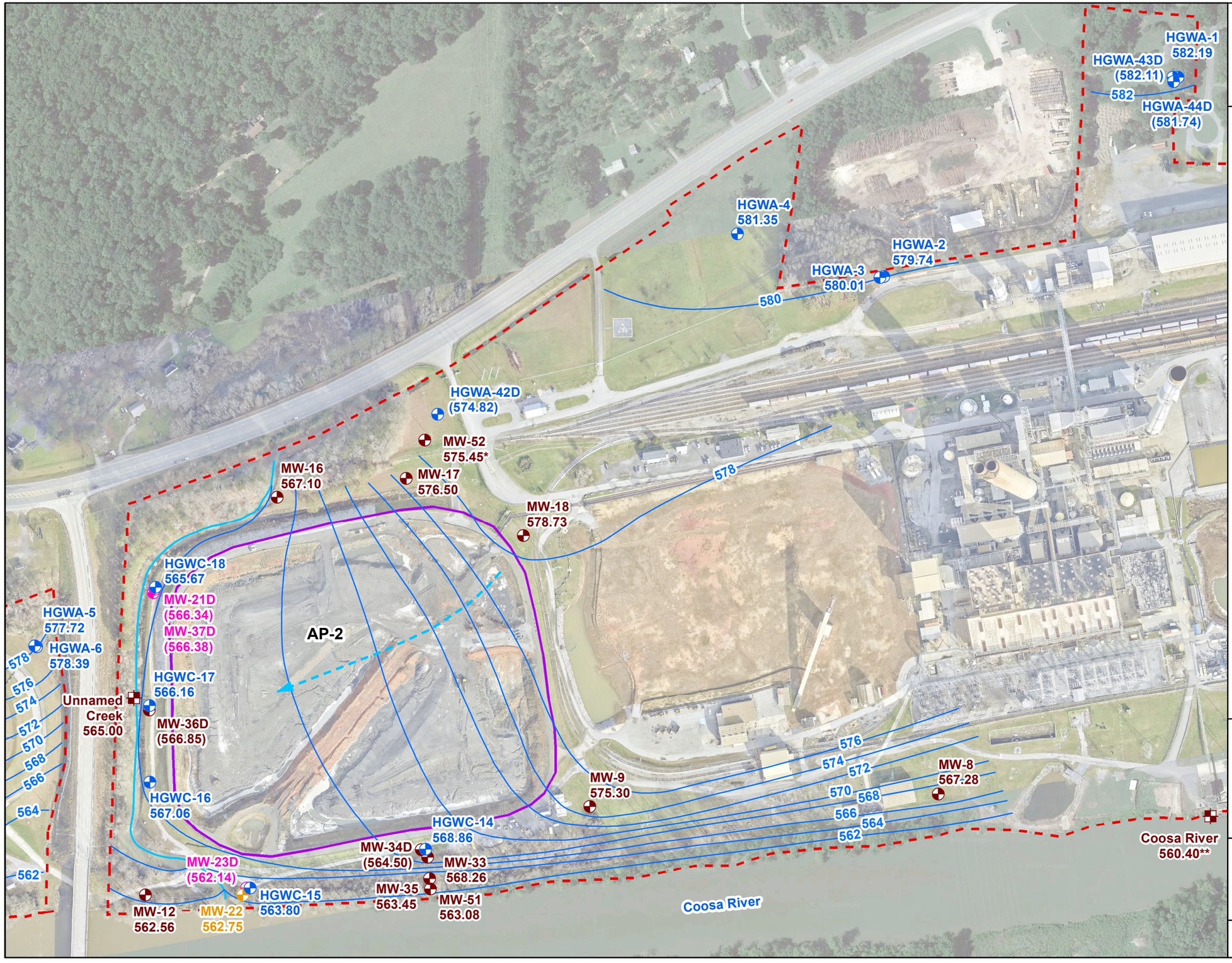
GEORGIA POWER COMPANY
PLANT HAMMOND AP-2
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 2



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Surface Water Level Gauge Point
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction
- Approximate AP-2 Boundary
- Plant Hammond Property Boundary

Notes:

1. Water level elevation recorded on January 31, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
2. Groundwater elevations in parentheses were not used to make the groundwater contours because these wells are screened at a different elevation in the formation/aquifer.
3. An asterix (*) denotes that the groundwater elevation at MW-52 was not used to develop groundwater contours because the water elevation is likely not presenting accurate static level at the time due to very recent well development and potential slow recharge of the well.
4. A double asterix (**) denotes the water level for the Coosa River was gauged approximately 950 feet upstream of MW-8 at the staff gauge near AP-1.
5. Aerial photograph source: Google Earth Pro, August 2019, And Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

GEORGIA REGISTERED PROFESSIONAL ENGINEER WHITNEY B. LAW

POTENTIOMETRIC SURFACE CONTOUR MAP - JANUARY 2022

GEORGIA POWER COMPANY
PLANT HAMMOND AP-2
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 3

APPENDIX A

Well Design, Installation and Development Report – Addendum No 5, Plant Hammond Ash Pond 2 (AP-2), June 2022

Prepared for

Georgia Power Company
241 Ralph McGill Blvd NE
Atlanta, Georgia 30308

WELL DESIGN, INSTALLATION, AND DEVELOPMENT REPORT - ADDENDUM No. 5

PLANT HAMMOND ASH POND 2 (AP-2)

Prepared by

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144

Project Number GW6581B

June 2022

Georgia Power

CERTIFICATION PAGE

I hereby certify that this *Well Design, Installation, and Development Report – Addendum No. 5, Plant Hammond Ash Pond 2 (AP-2)* has been prepared by, or under the direct supervision of, a Qualified Groundwater Scientist with Geosyntec Consultants and is in compliance with the United States Environmental Protection Agency Coal Combustion Residual Rule [40 Code of Federal Regulations 257 Subpart D], specifically §257.91(e)(1), and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10.

According to 391-3-4-.01(57), a Qualified Groundwater Scientist is "a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable individuals to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action."

Date: June 1, 2022

Whitney Law, P.E.
Georgia Professional Engineer No. 36641
Project Manager
Geosyntec Consultants

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LIST OF ACRONYMS

AP	Ash Pond
ASTM	American Society for Testing and Materials
CCR	coal combustion residual
CFR	Code of Federal Regulations
CFS	Civil Field Services
DO	dissolved oxygen
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
NAD	North America Datum
NAVD	North American Vertical Datum
NSF	National Sanitation Foundation
ORP	oxygen reduction potential
PVC	polyvinyl chloride
SCS	Southern Company Services
TOC	top of casing
US EPA	United States Environmental Protection Agency

1. INTRODUCTION

This report provides details regarding the design, installation, and development of one piezometer, MW-52, to supplement the current groundwater monitoring system at Georgia Power Company (Georgia Power) Plant Hammond (Site) Ash Pond 2 (AP-2). MW-52 will be used to gauge water levels to define groundwater flow direction and gradients upgradient of AP-2. The report was prepared as an addendum to previously submitted well design, installation, development and decommissioning reports issued for the Site (ERM, 2017, Geosyntec, 2019b, 2020a, 2020b, and 2021), and meets the requirements promulgated in the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule [40 Code of Federal Regulations (CFR) Part 257, Subpart D], specifically 40 CFR §257.91(e)(1) and Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10.

Plant Hammond is located in Floyd County, approximately 10 miles west of Rome, Georgia. The current groundwater monitoring system at AP-2 includes a network of compliance monitoring wells, delineation wells, and piezometers. The locations of these wells and piezometers are shown on **Figure 1**.

2. DRILLING AND WELL INSTALLATION

Well installation and development activities were performed according to accepted industry standards and following guidelines within the *Manual for Groundwater Monitoring* (GA EPD, 1991). Well drilling, installation, and surface completion activities were performed by Cascade Drilling, Inc. of Midland, North Carolina under contact with, and the supervision of, Southern Company Services (SCS) Civil Field Services (CFS) personnel. In accordance with the Georgia Water Well Standards Act, the driller was required to have an insurance bond on file with the State of Georgia at the time of drilling. A copy of this bond is provided in **Appendix A**. CFS personnel oversaw the drilling and installation efforts. A professional geologist (PG) employed with Geosyntec Consultants (Geosyntec) and registered to practice in the State of Georgia documented the drilling and installation efforts to record observations, soil and rock descriptions, subsurface stratigraphy, water elevations, and other field activities. Geosyntec was also responsible for the developing the newly installed well.

MW-52 was installed and completed in January 2022. The location of this well is shown on **Figure 1**. Well construction details are provided in **Table 1**; boring and well construction logs are included in **Appendix B**.

2.1 Drilling Method

The borehole was advanced using rotosonic drilling techniques with continuous core collection. A Terra Sonic Compact Crawler size drill rig with a 6-inch sonic drill rod was used to install the well. Care was taken so that the drilling methods did not introduce contamination of the groundwater from surface activities.

2.2 Screened Interval

Details regarding the well screened interval are provided in **Table 1**. The well is screened in the uppermost water bearing unit of the Site. MW-52 is screened from approximately 573.29 to 563.29 feet [referenced to the North American Vertical Datum of 1988 (NAVD 88)]. MW-52 is constructed with a 10 foot well screen segment.

2.3 Well Casings and Screens

The well was constructed of 2-inch inner diameter Schedule 40 polyvinyl chloride (PVC) casing with flush-threaded fittings. The well was installed with a 10-foot nominal length pre-packed dual-wall well screen with 0.010-inch slots. The casing and pre-packed

screen arrived pre-cleaned and packaged by the manufacturer. The pre-packed well screen was constructed onsite by packing sand between slotted PVC and the well screen. Well construction materials are sufficiently durable to resist chemical and physical degradation and do not interfere with the quality of groundwater samples. Casing and screen are flush-threaded. Solvent or glue was not used to construct the well. A threaded bottom cap was attached to the bottom of the screen. The PVC products used were American Society for Testing and Materials (ASTM) and National Sanitation Foundation (NSF) rated. Well screen interval details are provided in **Table 1**.

2.4 Well Intake Design

The well was designed and constructed to: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the well; and (3) ensure sufficient structural integrity to prevent collapse of the well. The annular space between the face of the formation and the screen was filled to minimize passage of formation materials into the well. A filter pack of clean, well-rounded, quartz sand was installed in the well. The 0.01-inch slot size was selected to minimize the inflow of formation material without impairing influent groundwater flow.

2.5 Filter Pack

Highly Pure Quartzite of Consolidated Aggregates Co. silica sand filter pack was used as the appropriate gradation for the well. The filter pack material meets the ASTM D5092 uniformity coefficient specification of 2.5 or less, with a uniformity coefficient of 1.6.

Filter pack material was placed within the pre-packed dual-wall well screen and in the annular space between the outside of the pre-pack screen and borehole wall to ensure an adequate thickness of filter pack material between the well and the formation. Filter pack material placed in the annular space outside of the well screen extended approximately 2 feet above the top of screen. No bridging occurred during filter pack placement.

Upon placement of the filter pack, the well was pumped with a submersible pump to assure settlement of the filter pack. The top of filter pack depth was measured following pumping to ensure appropriate extension of filter sand above the screen. The depth of top of filter pack was measured and recorded on the well construction log provided in **Appendix B**.

2.6 Annular Seal

A minimum of two feet of bentonite chips (PelPlug time-release-coated 3/8-inch bentonite pellets) were placed immediately above the filter pack by gravity-pouring into the annular space and hydrated per manufacture's specifications. A tremie pipe was used to probe the annular space to ensure that no bridging occurred. The bentonite was hydrated with potable water for a duration meeting the manufacture's specifications prior to grouting the remaining annulus.

The annulus above the bentonite seal was grouted with AQUAGUARD bentonite grout placed via tremie pipe and direct pour methods from the top of the bentonite seal. During grouting, care was taken to assure that the bentonite seal was not disturbed by locating the base of the tremie pipe approximately 2 feet above the bentonite seal and injecting grout at low pressure/velocity. A cement apron 4-feet by 4-feet by 4-inches was poured around the well. The pad was mounded slightly outward to direct surface drainage away from the well.

2.7 Cap and Protective Casing

The well riser was fitted with a locking cap and a lockable cover. A one-quarter inch vent hole was drilled into the PVC riser pipe to provide an avenue for the escape of gas. The protective cap guards the casing from damage and the locking cap serves as a security device to prevent well tampering. Bollards were installed around the four corners of the concrete pad to protect the well.

A weep hole was drilled in the outer protective casing near the bottom above the concrete pad. Pea gravel was placed inside the protective casing between the riser pipe and the outer casing. The well was clearly marked with the proper well identification number on the stand-up casing.

3. WELL DEVELOPMENT

The monitoring well was developed using a combination of surging and pumping to (1) restore the natural hydraulic conductivity of the formation, and (2) to remove fine-grained sediment to ensure low-turbidity groundwater samples. The well was alternately surged and purged until visually clear of particulates. Turbidity, pH, temperature, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO) measurements were recorded to ensure that each well was fully developed, and field parameters were stabilized following low-flow sampling procedures in accordance with the approved Groundwater Monitoring Plan for AP-2 (Geosyntec, 2020). The well development field forms are included in **Appendix C**.

4. SURVEY

Upon completion of the well installation, select horizontal locations and vertical elevations were surveyed by a Georgia-licensed surveyor on April 6, 2022. The top of the PVC well casing [top of casing (TOC) elevation] and the survey pin installed at the well pad were surveyed to within 0.5-foot horizontal accuracy and to 0.01-foot vertical accuracy. The horizontal location (i.e., northings and eastings) was recorded in feet relative to the North America Datum of 1983 (NAD) with the vertical elevation recorded in feet relative to the North American Vertical Datum of 1988. Certified survey data are provided in the well construction table (**Table 1**). A copy of the certified well survey data for the new well is provided in **Appendix D**.

5. REFERENCES

Environmental Resources Management (ERM), 2017. *Well Design, Installation, Development, and Decommissioning Report – Plant Hammond Ash Ponds 1 and 2*. October 2017.

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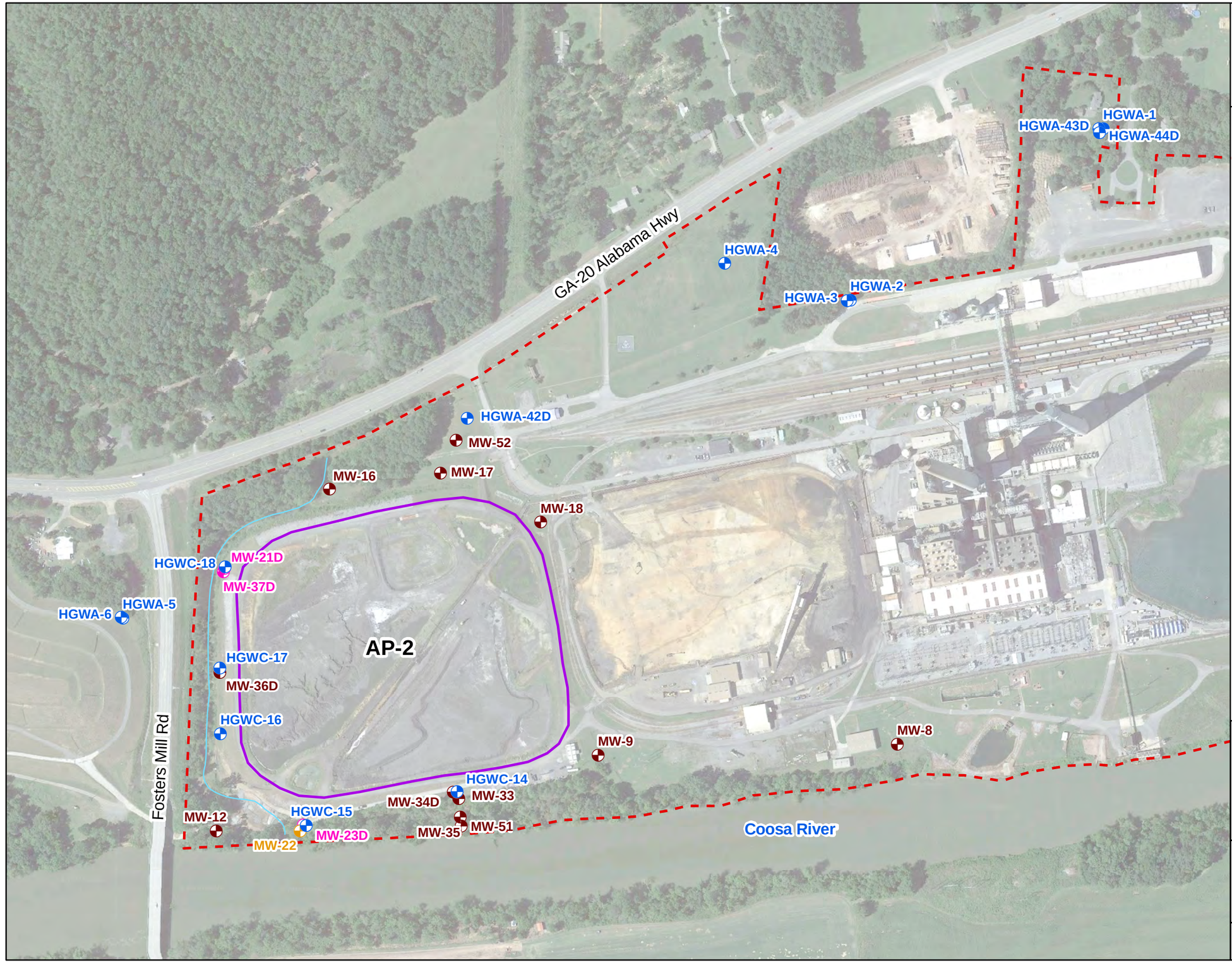
TABLE

Table 1
Summary of Well Construction Details
Plant Hammond AP-2, Floyd County, Georgia

Well ID	Purpose	Installation Date	Northing [(1)]	Easting [(1)]	Ground Surface Elevation [(2)] (ft NAVD88)	Top of Casing Elevation (ft NAVD88)	Top of Screen Elevation (ft NAVD88)	Bottom of Screen Elevation (ft NAVD88)	Well Depth (ft bgs) [(3)]
MW-52	Piezometer	1/25/2022	1549277.59	1938398.82	583.25	586.11	573.29	563.29	20.29

Notes:
ft bgs = feet below ground surface.
(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet. Survey was completed by GEL Solutions and certified April 11, 2022.
(2) Vertical elevations are referenced to the North American Vertical Datum (NAVD) of 1988. Ground surface elevation defined at the survey nail installed within the well pad. Survey was completed by GEL Solutions and certified April 11, 2022.
(3) Total well depth accounts for 4-inch sump.

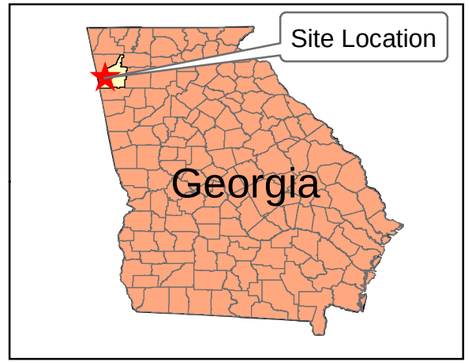
FIGURE



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Unnamed Creek
- Approximate AP-2 Boundary
- Plant Hammond Property Boundary



Note:
1. Aerial photograph source: Google Earth Pro, August 2019.

0 150 300 600

SCALE IN FEET

GROUNDWATER MONITORING NETWORK MAP

GEORGIA POWER COMPANY
PLANT HAMMOND AP-2
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | JUNE 2022

FIGURE 1

APPENDIX A

Well Driller Performance Bonds

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson, William M. Smith, Derek Sabo, Charla M. Boadle**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-seventh day of April, 2020.

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

By _____
Paul J. Brehm, Senior Vice President

STATE OF MINNESOTA
HENNEPIN COUNTY

On this twenty-seventh day of April, 2020, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.

ALISON DWAN NASH-TROUT
NOTARY PUBLIC - MINNESOTA
My Commission Expires
January 31, 2025

_____
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 12 day of April, 2021.

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

This Power of Attorney expires
January 31, 2025

_____
Kara Barrow, Secretary

Please direct bond verifications to surety@intactinsurance.com

CONTINUATION
CERTIFICATE

Atlantic Specialty Insurance Company , Surety upon

a certain Bond No. 800033976

dated effective 09/27/2017
(MONTH-DAY-YEAR)

on behalf of Ricky Davis / Cascade Drilling, L.P.
(PRINCIPAL)

and in favor of Department of Natural Resources, State of Georgia
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on 06/30/2021
(MONTH-DAY-YEAR)

and ending on 06/30/2023
(MONTH-DAY-YEAR)

Amount of bond Thirty Thousand and 00/100 Dollars ($30,000.00)

Description of bond Performance Bond for Water Well Contractors

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on April 12th , 2021
(MONTH-DAY-YEAR)

Atlantic Specialty Insurance Company

By Andrew P. Larsen
Attorney-in-Fact Andrew P. Larsen

Parker, Smith & Feek, Inc.
Agent

2233 112th Ave NE Bellevue, WA 98004
Address of Agent

425-709-3600
Telephone Number of Agent

S-0157/GE 8/08

XDP

APPENDIX B

Boring and Well Construction Log

Geosyntec consultants
engineers | scientists | innovators
Geosyntec Consultants
1255 Roberts Boulevard
Kennesaw, GA 30144

MW-52

CLIENT Southern Company Services
PROJECT NAME Plant Hammond Well Installation
PROJECT NUMBER GW6581B
PROJECT LOCATION Plant Hammond
DATE STARTED 1/25/2022 **COMPLETED** 1/25/2022
NORTHING 1549277.59 ft **EASTING** 1938398.82 ft
DRILLER Cascade Drilling
GROUND ELEVATION 583.25 ft **BORING DIAMETER** 6 in
DRILLING METHOD Sonic 4x6
TOP OF CASING ELEVATION 586.11 ft
SAMPLING METHOD 4" core 6" override
GEOPHYSICAL CONTRACTOR ---
RIG TYPE Terra Sonic Compact Crawler
LOGGED BY C. Hug **CHECKED BY** J. Ivanowski

DEPTH (ft)	ELEVATION (ft)	REMARKS	MATERIAL DESCRIPTION
0		0 to 9 ft: Hand auger.	CLAY, Yellow and reddish yellow, medium plasticity, with some fine grained sand, moist.
	580		From 2.5 ft: Yellow, reddish yellow and pale gray, bordering sandy clay, moist.
			578.25
5			SILTY CLAY with SAND, Red, yellowish brown, some pale gray, low plasticity, sand is fine grained, moist.
	575	9-20 ft: Sonic drilling.	
			573.25
10			SANDY CLAY, Red, yellowish red, low plasticity, sand is fine grained, moist to wet.
			572.25
			CLAYEY SAND, Yellow, pale gray, sand is fine grained, subrounded to rounded, with some fine to coarse grained, subrounded quartz gravel, wet.
	570		569.25
			GRAVELLY SAND, Yellow, pale gray, sand is fine to medium grained, gravel is fine grained, subrounded to rounded quartz, wet.
			568.25
15			SILTY CLAY, Red brown, yellowish red, low to medium plasticity, some fine grained sand, trace fine, rounded quartz gravel.
			567.25
			SILTY CLAY and CLAYEY SILT, Black, non plastic to low plasticity, trace fine pyrite, wet.
			566.25
			SHALE, Black, fine grained, recovered as pulverized, stiff silt and clayey silt, moist.
	565		From 18 ft: Dry.
20			562.96

CONSTRUCTION DIAGRAM

- Aquaguard Sodium Bentonite Grout
- Schedule 40 PVC 2"
- Bentonite coated 3/8" pellets
- 20/40 Silica Sand
- Top screen elevation: 573.29 ft
- 0.010 slot size 2" Pre Pack, U-Pack Screen
- Bottom screen elevation: 563.29 ft
- 0.3 ft sump

Bottom of borehole at 20.3 feet.

APPENDIX C

Well Development Forms

dev

Geosyntec consultants

WELL DEVELOPMENT LOG SHEET

Client: SCS

Site: AP-2

Well ID: MW-52

Total Depth (ft) (after purge): 23.15

Depth to Water (ft): 10.21'

Well Diameter (in): 2

Well Volume (gal) = $0.041d^2h$: 2.12

Well Volume (L) = gal * 3.785: 8.03

d = well diameter (inches); h = length of water column (feet)

Well Type: Flush / (Stick Up)

Well Lock: (Yes) / No

Well Cap Condition: (Good) / Replace

Well Tag Present: (Yes) / No

Project No.: GW6581

Location: Plant Hammond

Pump Type/Model: monsoon

Tubing Material: poly

Pump Intake Depth (ft): 20' BGS ~ 23.12'

Start/Stop Purge Time: 0900/1210

Purge Rate (mL/min): 2000

Total Purge Volume (L): 315

Development Date: 1/28/2022

Field Personnel Name: Thomas Kesslin

Time	pH (SU)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Temp. (°C)	Turbidity (NTUs)	DTW (ft btoc)	Purge Rate (mL/min)	Purged Volume (L)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0900							10.21	3000	0	prepurge for turbidity
0914										well dry - allow for Recharge
0929	6.36	534.24	-188.5	8.56	15.06	~~11.40~~ over	11.40	3000	42	Reduce flow to 2K mL/min
~~0936~~ 0930								2000	57	
0936	6.21	560.65	-128.4	2.32	17.72	overrange	21.00	2000	67	
0941	6.25	603.55	-133.6	2.98	18.06	682	21.00	2000	77	pause for 10 min Recharge
0951	6.63	2.44	44.6	8.82	15.26	1246	12.62	2000	77	- troll error - restart log
0956	6.25	615.69	-105.0	2.01	17.90	overrange	20.52	2000	87	purge/surge
1001	6.25	630.19	-114.6	2.59	17.86	Overrange	20.40	2000	97	↓
1006	6.30	663.30	-147.8	1.53	18.35	Overrange	20.60	2000	107	clear water observed @ 1006
1011	6.31	643.42	-137.4	2.18	17.86	Overrange	20.50	2000	117	
1016	6.30	636.08	-145.7	1.07	18.43	3712	20.6	2000	127	
1021	6.34	643.19	-172.3	1.29	18.26	overrange	17.9'	2000	137	
1026	6.37	696.54	-214.1	0.36	18.31	1354	20.0	2000	147	
1031	6.34	686.21	-124.5	0.58	17.96	~~000~~ 630	~~20.8~~ 12.9	~~2000~~ 2000	~~157~~ 157	allow (20 min) (phonecall) min recharge/conserve
1055	6.26	~~17.81~~ 683.17	-44.7	3.18	17.51	1027	12.20	2000	167	
1100	6.36	724.49	-86.1	0.67	18.72	24	14.45	2000	177	visibly clear
1105	6.31	641.61	-70.1	1.13	18.84	51	16.35	2000	187	
1110	6.37	733.35	-96.0	0.32	18.44	30.7	17.10	2000	197	
Stabilizing Criteria	+/- 0.1 SU	+/- 5%		0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater)		< 5 NTUs				

dev. pg 2 of 2

Geosyntec consultants

WELL DEVELOPMENT LOG SHEET

Client: SCS
Site: AP-2
Well ID: MW-52
Total Depth (ft) (after purge): 23.15
Depth to Water (ft): 10.21
Well Diameter (in): 2
Well Volume (gal) = 0.041d$_2$h: 2.172
Well Volume (L) = gal * 3.785: 8.03

d = well diameter (inches); h = length of water column (feet)

Project No.: GWCS81
Location: Plant Hammond
Pump Type/Model: monsoon
Tubing Material: poly
Pump Intake Depth (ft): 20-23.12
Start/Stop Purge Time: 0900/1210
Purge Rate (mL/min): 2000
Total Purge Volume (L): 315

Development Date: 11/28/2017
Field Personnel Name:

Well Type: Flush / (Stick Up)
Well Lock: (Yes) / No
Well Cap Condition: (Good) / Replace
Well Tag Present: (Yes) / No

Time	pH (SU)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Temp. (°C)	Turbidity (NTUs)	DTW (ft btoc)	Purge Rate (mL/min)	Purged Volume (L)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1115	6.23	611.53	-57.6	3.25	18.48	46.7	18.85	2000	207	
1120	6.43	748.03	-132.6	0.02	19.19	698	19.65	2000	247	
1125	6.33	693.70	-77.0	0.84	19.06	40	20.22	2000	287	
1130	6.38	731.13	-85.0	0.92	19.06	38.9	19.15	2000	235	pump cut free)
1135	6.41	732.79	-89.9	0.55	18.83	22	20.53	2000	245	
1140	6.40	730.11	-85.3	0.56	18.75	50.9	20.80	2000	255	very fine material suspended in water samples
1145	6.34	673.33	-54.3	2.35	18.92	1164	20.60	2000	265	? aggressive purge/surge
1150	6.38	708.17	-76.5	1.79	18.93	25.3	20.60	2000	275	
1155	6.38	702.91	-72.3	1.52	18.66	7.61	20.60	2000	285	
1200	6.38	701.09	-70.5	1.68	18.57	6.87	20.60	2000	295	
1205	6.38	701.17	-57.7	1.91	18.53	8.27	20.60	2000	305	
1210	6.37	702.43	-65.8	1.41	18.38	16.5	20.60	2000	315	material too fine to see - well developed - attempt simulated low flow
Stabilizing Criteria	**+/- 0.1 SU**	**+/- 5%**		0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater)		**< 5 NTUs**				

pg 1 of 2

Geosyntec consultants

~~WELL DEVELOPMENT LOG SHEET~~ Low flow test

Client: SCS
Site: dpz
Well ID: MW-52
Total Depth (ft) (after purge): 23.15
Depth to Water (ft): 12.00
Well Diameter (in): 2
Well Volume (gal) = 0.041 d_2 h:
Well Volume (L) = gal * 3.785:
d = well diameter (inches); h = length of water column (feet)

Project No.: GW6581
Location: Plant Hammond
Pump Type/Model: monsoon
Tubing Material: poly
Pump Intake Depth (ft): 15.12
Start/Stop Purge Time: 1233/1446
Purge Rate (mL/min): 200
Total Purge Volume (L): 27

Development Date: 11/28/2022
Field Personnel Name: Thomas Hessler

Well Type: Flush / (Stick Up)
Well Lock: (Yes) / No
Well Cap Condition: (Good) / Replace
Well Tag Present: (Yes) / No

Time	pH (SU)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Temp. (°C)	Turbidity (NTUs)	DTW (ft btoc)	Purge Rate (mL/min)	Purged Volume (L)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1233	6.43	729.78	-52.9	1.17	16.11	43.6	12.00	200	0	
1238	6.42	~~29~~ 729.27	-53.2	1.03	16.43	26.9	12.15	200	1	
1243	6.40	727.76	-51.5	1.12	16.92	31.9	12.25	200	2	
1248	6.41	726.53	-51.9	1.05	~~726.53~~ 16.44	16.2	12.10	200	3	
1253	6.41	728.35	-51.4	1.02	16.25	21.6	12.10	200	4	
~~1300~~ 1258	6.43	718.36	-59.1	0.94	15.44	15.6	12.10	200	5	
1303	6.42	737.79	-51.0	0.88	15.12	13.3	12.10	200	6	
1308	6.41	726.74	-49.7	0.99	16.30	29.7	12.10	200	7	
1313	6.42	741.84	-51.5	0.84	15.71	14.8	12.10	200	8	
1318	6.41	737.77	-51.8	0.84	16.62	14.2	12.10	200	9	
1323	6.44	718.93	-57.7	0.83	15.27	14.7	12.10	200	10	
1328	6.45	723.06	-47.3	0.72	13.95	6.79	12.10	200	11	
1333	6.42	743.15	-49.7	0.73	14.86	6.50	12.10	200	12	
1338	6.47	718.34	-53.9	0.87	14.40	15.2	~~12.10~~ 11.5	200	13	pump stalled
1343	6.44	726.65	-44.8	0.83	13.50	13.3	11.0	200	14	pump stalled
1348	6.46	729.46	-45.4	0.65	12.91	6.84	11.3	200	15	
1353	6.45	734.77	-44.9	0.63	13.04	5.44	11.3	200	16	
1358	6.43	729.03	-44.1	0.77	14.04	9.36	11.3	200	17	
1403	6.43	727.75	-44.0	0.55	14.76	8.63	11.3	200	18	
Stabilizing Criteria	**+/- 0.1 SU**	**+/- 5%**		0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater)		**< 5 NTUs**				

low flow test

pg 2 of 2

Geosyntec consultants

~~WELL DEVELOPMENT LOG SHEET~~ D

Client:	SCS	Project No.:	GW6581	Development Date:	11/28/2022
Site:	APT	Location:	Plant Hammond	Field Personnel Name:	Meems / Keeble
Well ID:	MW-52	Pump Type/Model:	monsoon		
Total Depth (ft) (after purge):	23.15	Tubing Material:	poly		
Depth to Water (ft):	12.00	Pump Intake Depth (ft):	18.13		
Well Diameter (in):	2	Start/Stop Purge Time:	1233/1446		
Well Volume (gal) = 0.041d_2h:		Purge Rate (mL/min):	200		
Well Volume (L) = gal * 3.785:		Total Purge Volume (L):	27		

d = well diameter (inches); h = length of water column (feet)

Well Type: Flush (Stick Up)

Well Lock: (Yes) No

Well Cap Condition: (Good) Replace

Well Tag Present: (Yes) No

Time	pH (SU)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Temp. (°C)	Turbidity (NTUs)	DTW (ft btoc)	Purge Rate (mL/min)	Purged Volume (L)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1402	6.45	700.47	-47.7	0.90	13.27	8.47	11.3	200	19	pump struggles @ this flow rate
1413	6.46	718.23	-47.7	0.87	11.03	8.57	11.3	200	20	
1418	6.39	720.54	-46.0	1.00	13.77	18.0	11.5	200	21	connection error
1421	6.22	566.50	-6.2	2.93	16.79	20.00	11.5	200	22	increase flow to clear tubing
1426	6.33	698.66	-36.6	1.79	13.99	15.7	11.5	200	25	
1431	6.41	718.56	-43.0	0.94	13.59	4.75	11.5	200	24	
1436	6.42	732.40	-41.6	0.75	12.98	4.57	11.5	200	25	
1441	6.44	715.92	-50.7	0.71	13.09	4.80	11.5	200	26	
1446	6.42	743.80	-42.5	0.76	12.87	3.94	11.5	200	27	Stable "sample here"
Stabilizing Criteria	**+/- 0.1 SU**	**+/- 5%**		0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater)		**< 5 NTUs**				

Low-Flow Test Report:

Test Date / Time: 1/28/2022 9:42:42 AM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: Device Location **Initial Depth to Water: 11.7 ft**	**Estimated Total Volume Pumped: 315 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 2000 ml/min** **Final Draw Down: 8.9 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728550**

Test Notes:
Well development

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 5	
1/28/2022 9:42 AM	00:00	6.28 pH	18.16 °C	613.77 µS/cm	1.78 mg/L	--	-174.3 mV	11.70 ft	2,000.0 ml/min
1/28/2022 9:43 AM	00:50	6.27 pH	18.35 °C	603.30 µS/cm	3.07 mg/L	--	-203.3 mV	11.70 ft	2,000.0 ml/min
1/28/2022 9:54 AM	11:57	6.63 pH	15.26 °C	2.44 µS/cm	8.82 mg/L	1,246.0 NTU	44.6 mV	12.62 ft	2,000.0 ml/min
1/28/2022 9:59 AM	16:57	6.25 pH	17.90 °C	617.69 µS/cm	2.01 mg/L	--	-105.0 mV	20.52 ft	2,000.0 ml/min
1/28/2022 10:04 AM	21:57	6.25 pH	17.86 °C	630.19 µS/cm	2.59 mg/L	--	-114.6 mV	20.40 ft	2,000.0 ml/min
1/28/2022 10:09 AM	26:57	6.30 pH	18.35 °C	663.30 µS/cm	1.53 mg/L	--	-147.8 mV	20.60 ft	2,000.0 ml/min
1/28/2022 10:14 AM	31:57	6.31 pH	17.86 °C	643.42 µS/cm	2.18 mg/L	--	-137.4 mV	20.80 ft	2,000.0 ml/min
1/28/2022 10:19 AM	36:57	6.30 pH	18.43 °C	686.08 µS/cm	1.07 mg/L	3,712.0 NTU	-145.7 mV	20.80 ft	2,000.0 ml/min
1/28/2022 10:24 AM	41:57	6.34 pH	18.26 °C	693.19 µS/cm	1.29 mg/L	--	-172.3 mV	17.90 ft	2,000.0 ml/min
1/28/2022 10:29 AM	46:57	6.37 pH	18.31 °C	696.54 µS/cm	0.36 mg/L	1,554.0 NTU	-214.1 mV	20.00 ft	2,000.0 ml/min
1/28/2022 10:34 AM	51:57	6.34 pH	17.92 °C	686.21 µS/cm	0.58 mg/L	630.00 NTU	-124.5 mV	20.00 ft	2,000.0 ml/min
1/28/2022 10:55 AM	01:12:30	6.26 pH	17.81 °C	683.17 µS/cm	3.18 mg/L	1,027.0 NTU	-44.7 mV	20.00 ft	2,000.0 ml/min
1/28/2022 11:00 AM	01:17:30	6.36 pH	18.72 °C	729.49 µS/cm	0.67 mg/L	24.00 NTU	-86.1 mV	14.45 ft	2,000.0 ml/min
1/28/2022 11:05 AM	01:22:30	6.31 pH	18.84 °C	641.61 µS/cm	1.73 mg/L	51.00 NTU	-70.1 mV	16.35 ft	2,000.0 ml/min
1/28/2022 11:10 AM	01:27:30	6.37 pH	18.44 °C	733.35 µS/cm	0.32 mg/L	30.70 NTU	-96.0 mV	17.10 ft	2,000.0 ml/min
1/28/2022 11:15 AM	01:32:30	6.23 pH	18.48 °C	611.53 µS/cm	3.25 mg/L	46.70 NTU	-57.6 mV	18.85 ft	2,000.0 ml/min
1/28/2022 11:20 AM	01:37:30	6.43 pH	19.19 °C	748.03 µS/cm	0.02 mg/L	698.00 NTU	-132.6 mV	19.65 ft	2,000.0 ml/min

1/28/2022 11:25 AM	01:42:30	6.33 pH	19.06 °C	693.20 µS/cm	0.84 mg/L	40.00 NTU	-77.0 mV	20.22 ft	2,000.0 ml/min
1/28/2022 11:30 AM	01:47:30	6.38 pH	19.06 °C	737.18 µS/cm	0.92 mg/L	38.90 NTU	-85.0 mV	19.15 ft	2,000.0 ml/min
1/28/2022 11:35 AM	01:52:30	6.41 pH	18.83 °C	732.79 µS/cm	0.55 mg/L	22.00 NTU	-89.9 mV	20.53 ft	2,000.0 ml/min
1/28/2022 11:40 AM	01:57:30	6.40 pH	18.75 °C	730.11 µS/cm	0.56 mg/L	50.90 NTU	-85.3 mV	20.80 ft	2,000.0 ml/min
1/28/2022 11:45 AM	02:02:30	6.34 pH	18.92 °C	673.33 µS/cm	2.35 mg/L	1,164.0 NTU	-54.3 mV	20.60 ft	2,000.0 ml/min
1/28/2022 11:50 AM	02:07:30	6.38 pH	18.93 °C	708.17 µS/cm	1.79 mg/L	25.30 NTU	-76.5 mV	20.60 ft	2,000.0 ml/min
1/28/2022 11:55 AM	02:12:30	6.38 pH	18.66 °C	702.91 µS/cm	1.52 mg/L	7.61 NTU	-72.3 mV	20.60 ft	2,000.0 ml/min
1/28/2022 12:00 PM	02:17:30	6.38 pH	18.57 °C	707.69 µS/cm	1.68 mg/L	6.87 NTU	-70.5 mV	20.60 ft	2,000.0 ml/min
1/28/2022 12:05 PM	02:22:30	6.38 pH	18.53 °C	707.17 µS/cm	1.91 mg/L	8.27 NTU	-57.7 mV	20.60 ft	2,000.0 ml/min
1/28/2022 12:10 PM	02:27:30	6.37 pH	18.38 °C	702.43 µS/cm	1.41 mg/L	16.80 NTU	-65.8 mV	20.60 ft	2,000.0 ml/min

Low-Flow Test Report:

Test Date / Time: 1/28/2022 12:33:03 PM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: MW-52 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Initial Depth to Water: 12 ft**	**Pump Type: Monsoon** **Pump Intake From TOC: 18.13 ft** **Estimated Total Volume Pumped: 27 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.5 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728550**

Test Notes:
Low flow test, no samples

Weather Conditions:
Cloudy, 37 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 5	
1/28/2022 12:33 PM	00:00	6.43 pH	16.11 °C	729.78 µS/cm	1.17 mg/L	43.60 NTU	-52.9 mV	12.00 ft	200.00 ml/min
1/28/2022 12:38 PM	05:00	6.42 pH	16.43 °C	729.27 µS/cm	1.03 mg/L	26.90 NTU	-53.2 mV	12.18 ft	200.00 ml/min
1/28/2022 12:43 PM	10:00	6.40 pH	16.92 °C	727.76 µS/cm	1.12 mg/L	31.90 NTU	-51.5 mV	12.25 ft	200.00 ml/min
1/28/2022 12:48 PM	15:00	6.41 pH	16.60 °C	726.53 µS/cm	1.05 mg/L	16.20 NTU	-51.9 mV	12.10 ft	200.00 ml/min
1/28/2022 12:53 PM	20:00	6.41 pH	16.25 °C	728.35 µS/cm	1.02 mg/L	21.60 NTU	-51.4 mV	12.10 ft	200.00 ml/min
1/28/2022 12:58 PM	25:00	6.43 pH	15.44 °C	718.36 µS/cm	0.94 mg/L	15.60 NTU	-59.1 mV	12.10 ft	200.00 ml/min
1/28/2022 1:03 PM	30:00	6.42 pH	15.12 °C	737.79 µS/cm	0.88 mg/L	13.30 NTU	-51.0 mV	12.10 ft	200.00 ml/min
1/28/2022 1:08 PM	35:00	6.41 pH	16.30 °C	726.74 µS/cm	0.99 mg/L	29.70 NTU	-49.7 mV	12.10 ft	200.00 ml/min
1/28/2022 1:13 PM	40:00	6.42 pH	15.71 °C	741.84 µS/cm	0.84 mg/L	14.80 NTU	-51.5 mV	12.10 ft	200.00 ml/min
1/28/2022 1:18 PM	45:00	6.41 pH	16.62 °C	737.77 µS/cm	0.84 mg/L	14.40 NTU	-51.8 mV	12.10 ft	200.00 ml/min
1/28/2022 1:23 PM	50:00	6.44 pH	15.22 °C	718.93 µS/cm	0.83 mg/L	14.70 NTU	-57.7 mV	12.10 ft	200.00 ml/min
1/28/2022 1:28 PM	55:00	6.45 pH	13.95 °C	723.06 µS/cm	0.72 mg/L	6.79 NTU	-47.3 mV	12.10 ft	200.00 ml/min
1/28/2022 1:33 PM	01:00:00	6.42 pH	14.86 °C	743.15 µS/cm	0.75 mg/L	6.50 NTU	-49.7 mV	12.10 ft	200.00 ml/min
1/28/2022 1:38 PM	01:05:00	6.44 pH	14.40 °C	718.34 µS/cm	0.87 mg/L	15.20 NTU	-53.9 mV	11.50 ft	200.00 ml/min

1/28/2022 1:43 PM	01:10:00	6.44 pH	13.50 °C	726.65 µS/cm	0.83 mg/L	13.30 NTU	-44.8 mV	11.00 ft	200.00 ml/min
1/28/2022 1:48 PM	01:15:00	6.46 pH	12.91 °C	729.46 µS/cm	0.65 mg/L	6.84 NTU	-45.4 mV	11.30 ft	200.00 ml/min
1/28/2022 1:53 PM	01:20:00	6.45 pH	13.04 °C	734.77 µS/cm	0.63 mg/L	5.44 NTU	-44.9 mV	11.30 ft	200.00 ml/min
1/28/2022 1:58 PM	01:25:00	6.43 pH	14.04 °C	729.03 µS/cm	0.77 mg/L	9.36 NTU	-44.1 mV	11.30 ft	200.00 ml/min
1/28/2022 2:03 PM	01:30:00	6.43 pH	14.76 °C	722.75 µS/cm	0.85 mg/L	8.63 NTU	-44.0 mV	11.30 ft	200.00 ml/min
1/28/2022 2:08 PM	01:35:00	6.45 pH	13.27 °C	700.47 µS/cm	0.90 mg/L	11.30 NTU	-47.7 mV	11.30 ft	200.00 ml/min
1/28/2022 2:13 PM	01:40:00	6.46 pH	11.03 °C	718.23 µS/cm	0.87 mg/L	8.57 NTU	-47.7 mV	11.30 ft	200.00 ml/min
1/28/2022 2:18 PM	01:45:00	6.39 pH	13.77 °C	720.54 µS/cm	1.00 mg/L	18.00 NTU	-46.0 mV	11.50 ft	200.00 ml/min
1/28/2022 2:23 PM	01:50:00	6.36 pH	14.46 °C	673.84 µS/cm	1.60 mg/L		-35.6 mV	11.50 ft	200.00 ml/min
1/28/2022 2:26 PM	01:53:18	6.22 pH	16.79 °C	566.50 µS/cm	2.93 mg/L	20.00 NTU	-6.2 mV	11.50 ft	200.00 ml/min
1/28/2022 2:31 PM	01:58:18	6.33 pH	13.99 °C	698.66 µS/cm	1.79 mg/L	15.70 NTU	-36.6 mV	11.50 ft	200.00 ml/min
1/28/2022 2:36 PM	02:03:18	6.41 pH	13.39 °C	718.56 µS/cm	0.94 mg/L	4.75 NTU	-48.0 mV	11.50 ft	200.00 ml/min
1/28/2022 2:41 PM	02:08:18	6.42 pH	12.98 °C	732.40 µS/cm	0.75 mg/L	5.57 NTU	-41.6 mV	11.50 ft	200.00 ml/min
1/28/2022 2:46 PM	02:13:18	6.44 pH	13.09 °C	715.92 µS/cm	0.71 mg/L	4.80 NTU	-50.7 mV	11.50 ft	200.00 ml/min
1/28/2022 2:51 PM	02:18:18	6.42 pH	12.87 °C	743.80 µS/cm	0.76 mg/L	3.94 NTU	-42.5 mV	11.50 ft	200.00 ml/min

Samples

Sample ID:	Description:

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Kessler

Date: 1/28/2022

Time (start): 0811

Time (finish): 0828

smarTroll SN: 778550

Turbidity Meter Type: LaMote 2020we

SN: 2491-2312

Weather Conditions: overcast, 40°

Facility and Unit: Plant Hammond

Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	2010704B 05/2022	8.18	4490	4745.5	~~4766~~ 4490	+/- 5 %	(Yes) No	
pH (4)			4.00	4.16	4.0	+/- 0.1 SU	(Yes) No	
Mid-Day pH (4) check	~~—~~		~~4.00~~			~~+/- 0.1 SU~~	~~Yes No~~	TK
pH (7)	21010066 08/2022	9.85	7.00	7.37	7.00	+/- 0.1 SU	Yes No	
Mid-Day pH (7) check	~~—~~		~~7.00~~			~~+/- 0.1 SU~~	~~Yes No~~	TK
pH (10)	21030195 03/2022	10.76	10.00	10.61	10.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (10) check	~~—~~		~~10.00~~			~~+/- 0.1 SU~~	~~Yes No~~	TK
ORP (mV)	21110111 05/2022	10.33	228	236.6	228	+/- 20mV	(Yes) No	
DO (%) (1pt, 100% water saturated air cal)			100	99.6	100	+/- 6 % saturation	(Yes) No	
Turbidity 0 NTU			0	0	0	+/- 0.5 NTU	(Yes) No	
Turbidity 1 NTU			1.00	1.14	1.00	+/- 0.5 NTU	(Yes) No	
Turbidity 10 NTU			10.00	9.37	10.00	+/- 0.5 NTU	(Yes) No	

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	728550
Created	1/28/2022

Sensor	**RDO**
Serial Number	728776
Last Calibrated	1/28/2022

Calibration Details

Slope	1.152685
Offset	0.00 mg/L

Calibration point 100%

Concentration	10.56 mg/L
Temperature	6.29 °C
Barometric Pressure	998.41 mbar

Sensor	**Conductivity**
Serial Number	728550
Last Calibrated	1/28/2022

Calibration Details

Cell Constant	0.987
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	**Level**
Serial Number	718937
Last Calibrated	Factory Defaults

Sensor	**pH/ORP**
Serial Number	20796
Last Calibrated	1/28/2022

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	160.5 mV
Temperature	9.28 °C

Calibration Point 2

pH of Buffer	7.06 pH
pH mV	-3.5 mV
Temperature	10.04 °C

Calibration Point 3

pH of Buffer	10.12 pH
pH mV	-163.1 mV
Temperature	10.31 °C

Slope and Offset 1

Slope	-53.58 mV/pH
Offset	-0.3 mV

Slope and Offset 2

Slope	-52.18 mV/pH
Offset	-0.4 mV

ORP

ORP Solution	ORP Standard
Offset	-21.7 mV
Temperature	10.33 °C

APPENDIX D

Certified Well Survey Data

Well ID	Casing Northing	Casing Easting	Top of Casing Elevation	Nail or Pad Northing	Nail or Pad Easting	Nail or Pad Elevation	Description
MW-52	1549277.589	1938398.817	586.11	1549277.411	1938400.126	583.25	NAIL ON PAD
Benchmark	Northing	Easting	Elevation				
BM-H2	1548149.4490	1938960.2220	590.68				

SURVEY DATA CERTIFICATION FOR SOUTHERN COMPANY TO DETERMINE NORTHING, EASTING, AND VERTICAL ELEVATION OF THE NAIL IN THE CONCRETE PAD & THE PVC WELL CASING. DATE OF FIELD SURVEY & INSPECTION: 04/06/2022. FIELD SURVEY POSITIONAL TOLERANCE=0.5 FEET HORIZONTAL-NAD'83, 0.01 VERTICAL-NAVD '88. EQUIPMENT USED FOR HORIZONTAL LOCATION: TRIMBLE R10 RTK GPS & TRIMBLE S5 ROBOTIC TOTAL STATION. THE VERTICAL LOCATION OF EACH SURVEYED POINT WAS ESTABLISHED BASED UPON LEVEL RUNS WITH A DIGITAL LEVEL LOOP FROM VERTICAL CONTROL ESTABLISHED BY ON-SITE BENCHMARKS BM-H1 AND BM-H2 SET BY GEL SOLUTIONS USING A TRIMBLE DINI LEVEL

4/11/2022

COA - LS003119
Exp. 06/30/2022

APPENDIX B

Well Maintenance and Repair Documentation Memorandum

Geosyntec consultants

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144
PH 678.202.9500
FAX 678.202.9501
www.geosyntec.com

MEMORANDUM

DATE: June 22, 2022

TO: Kristen Jurinko, P.G., Southern Company Services, Inc.

CC: Ben Hodges, P.G., Georgia Power Company

FROM: Geosyntec Consultants

SUBJECT: **Plant Hammond Ash Pond 2 (AP-2) – Well Maintenance and Repair Documentation, Georgia Power Company**

Geosyntec Consultants has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant Hammond AP-2 during the 2022 semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells. Documentation of the well inspections are provided as an attachment to this memorandum.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Hammond/AP-2	1/31/2022	All Wells	Checked and cleared weep holes of debris.

ATTACHMENT
Well Inspection Forms

Well Inspection Form

Plant Name/Unit Name: Plant Hammond/AP 1/2/3
Field Technician: C. CAIN
Well ID: HGWA-1

Date (mm/dd/yyyy): 01/31/22
Field Conditions: Sun 65

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?	X	✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓ CC 1/31/22		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder pump
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP 1/2/3
Field Technician: C. CAIN
Well ID: HGWA-2

Date (mm/dd/yyyy): 6/31/22
Field Conditions: Sun 55

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder pump
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name Plant Hammond / AP 1/2/3
Field Technician C. CAIN 1/31/22
Well ID HGWA-3

Date (mm/dd/yyyy) 01/31/22
Field Conditions Sun 55

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder pump
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond
Field Technician: C.CAIN
Well ID: HGWA-4

Date (mm/dd/yyyy): 1/31/22
Field Conditions: Sunny 50

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?	✗	✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓ CC 1/31/22		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with past well logs?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Szwast
Well ID: HGWA-5

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3 Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling and Data Collection Equipment				
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Dedicated Sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6 Corrective Actions				
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: Thomas Kessler
Well ID: HGWA-6

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sun, 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?			
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond/AP-2
Field Technician: Thomas Hegele
Well ID: HGWA-42D

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sun, 50

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	—		~~N/A~~
g	Does the well require redevelopment (low flow, excess turbidity)?		—	~~N/A~~
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond/AP-1/2/3
Field Technician: C. CAIN
Well ID: HGWA-430

Date (mm/dd/yyyy): 1/31/22
Field Conditions: Sun 55

		Yes	No	Comments
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3 Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling and Data Collection Equipment				
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder pump
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6 Corrective Actions				
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP 1/2/3
Field Technician: C. CAIN
Well ID: HGWA-44D

Date (mm/dd/yyyy): 01/31/22
Field Conditions: sm 55

		Yes	No	Comments
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3 Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling and Data Collection Equipment				
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder pump
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6 Corrective Actions				
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Stewart
Well ID: HGWC-14

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated water quality sonde dedicated water level data logger
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?	✓		
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?	✓		
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Szwast
Well ID: HAWC-15

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated water level data logger
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?	✓		
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Seward
Well ID: HGWC-16

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3 Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling and Data Collection Equipment				
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated water level data logger
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?	✓		
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6 Corrective Actions				
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Szwast
Well ID: HGWC-17

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Szwast
Well ID: HGWC-18

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3 Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling and Data Collection Equipment				
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated water quality sonde dedicated water level data logger
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?	✓		
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?	✓		
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6 Corrective Actions				
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Plummers Unit 1/2
Field Technician: Thomas Kressler
Well ID: MW-8

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sun, 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: [illegible]
Well ID: MW-9

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: sun, 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2, AP-4
Field Technician: A. Swast
Well ID: MW-12
Date (mm/dd/yyyy): 01/31/2022
Field Conditions: sunny, 50°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated water level data logger
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?	✓		
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
	Corrective Actions			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-C
Field Technician: Thomas Keesh
Well ID: MW-16

Date (mm/dd/yyyy): 01/13/2022
Field Conditions: sun - 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: Thomas Keogh
Well ID: MW-17

Date (mm/dd/yyyy): 01/31/2024
Field Conditions: sun, 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	N/A		
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Thompson/Unit 2
Field Technician: Thomas Heath
Well ID: MW-18

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: Thomas Hessler
Well ID: MW-33

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sun, 50

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: WWTP Plant Hammond/WPS
Field Technician: Thomas Nash
Well ID: MW-34D

Date (mm/dd/yyyy): 01/31/2024
Field Conditions: sunny 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?			
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Szwast
Well ID: MW-35

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated water quality sonde dedicated water level data logger
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?	✓		
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?	✓		
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: Thomas Hess
Well ID: MW-36D

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: sun, 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: Thomas Heath
Well ID: MW-51

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sun, 50°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Thomas Hassler 3&2
Field Technician: Plant Hammond/APC
Well ID: MW-52

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 30°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		N/A
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-C
Field Technician: Thomas Russell
Well ID: MW-E11

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sun, 650

	Yes	No	Comments
1 Location/Identification			
a Is the well visible and accessible?	✓		
b Is the well properly identified with the correct well ID?	✓		
c Is the well in a high traffic area?		–	
d Are appropriate measures in place to protect the well (e.g., bollards)?	–		
e Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	–		
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	✓		
b Is the casing free of degradation or deterioration?	✓		
c Does the casing have a functioning weep hole?	✓		
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e Is the well locked?	✓		
f If locked, is the well lock in good condition?	✓		
g Is the well lid in good condition?	✓		
3 Surface Pad			
a Is the well pad in good condition (not cracked or broken)?	✓		
b Is the well pad sloped away from the protective casing?	✓		
c Is the well pad in complete contact with the protective casing?	✓		
d Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal Casing			
a Does the cap prevent entry of foreign material into the well?	✓		
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c Is the well properly vented for equilibration of air pressure?	✓		
d Is the survey point clearly marked on the inner casing?	✓		
e Is the depth of the well consistent with the original well log?	✓		
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	–		
5 Sampling and Data Collection Equipment			
a Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d Does the desiccant need to be replaced on the water quality sonde?			N/A
e If equipped with a water level data logger, is it in good operational condition?			N/A
f Does the well recharge adequately when purged?	✓		
g Does the well require redevelopment (low flow, excess turbidity)?		–	
6 Corrective Actions			
a Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-2
Field Technician: A. Szwast
Well ID: MW-22

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: Sunny, 50°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Thomas Hooker
Field Technician: Plant Hammond IAP2 SC
Well ID: MW-23D

Date (mm/dd/yyyy): 01/31/2022
Field Conditions: sunny, 60°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond/AP-2
Field Technician: [illegible]
Well ID: MW-37D

Date (mm/dd/yyyy): 01/31/2025
Field Conditions: sun, 50

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

APPENDIX C

Laboratory Analytical and Field Sampling Reports

LABORATORY ANALYTICAL REPORTS

January 2022
(Surface Water Sampling)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

February 01, 2022

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on January 25, 2022. 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.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

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 - Peachtree Corners, GA

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

Sincerely,

Maiya Parks
maiya.parks@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Ben Hodges, Georgia Power
Warren Johnson, ARCADIS - Atlanta
Allison Keefer, Southern Company

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92584176001	**H-0.05 (Mid)**	Water	01/24/22 11:38	01/25/22 08:36
92584176002	**H+0.25 (Mid)**	Water	01/24/22 11:29	01/25/22 08:36
92584176003	**H+0.35 (Mid)**	Water	01/24/22 11:22	01/25/22 08:36
92584176004	**H+0.75 (Mid)**	Water	01/24/22 11:15	01/25/22 08:36

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92584176001	**H-0.05 (Mid)**	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92584176002	**H+0.25 (Mid)**	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92584176003	**H+0.35 (Mid)**	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92584176004	**H+0.75 (Mid)**	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Sample: H-0.05 (Mid) **Lab ID: 92584176001** Collected: 01/24/22 11:38 Received: 01/25/22 08:36 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Calcium	**17.8**	mg/L	1.0	1	01/25/22 13:29	01/26/22 13:15	7440-70-2	
Potassium	**1.7**	mg/L	0.20	1	01/25/22 13:29	01/25/22 21:13	7440-09-7	
Sodium	**4.3**	mg/L	1.0	1	01/25/22 13:29	01/25/22 21:13	7440-23-5	
Magnesium	**5.0**	mg/L	0.050	1	01/25/22 13:29	01/25/22 21:13	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 17:59	7440-38-2	
Boron	ND	mg/L	0.040	1	01/27/22 09:56	01/28/22 17:59	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 17:59	7440-48-4	
Lithium	ND	mg/L	0.030	1	01/27/22 09:56	01/28/22 17:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	01/27/22 09:56	01/28/22 17:59	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**88.0**	mg/L	10.0	1		01/28/22 10:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**4.9**	mg/L	1.0	1		01/26/22 19:01	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/26/22 19:01	16984-48-8	
Sulfate	**5.3**	mg/L	1.0	1		01/26/22 19:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Sample: H+0.25 (Mid) **Lab ID: 92584176002** Collected: 01/24/22 11:29 Received: 01/25/22 08:36 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Calcium	**18.4**	mg/L	1.0	1	01/25/22 13:29	01/26/22 13:19	7440-70-2	
Potassium	**1.9**	mg/L	0.20	1	01/25/22 13:29	01/25/22 21:41	7440-09-7	
Sodium	**5.6**	mg/L	1.0	1	01/25/22 13:29	01/25/22 21:41	7440-23-5	
Magnesium	**5.1**	mg/L	0.050	1	01/25/22 13:29	01/25/22 21:41	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	01/27/22 09:56	01/28/22 18:05	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:05	7440-48-4	
Lithium	ND	mg/L	0.030	1	01/27/22 09:56	01/28/22 18:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	01/27/22 09:56	01/28/22 18:05	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**93.0**	mg/L	10.0	1		01/28/22 10:32		
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	1		01/26/22 19:15	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/26/22 19:15	16984-48-8	
Sulfate	**7.8**	mg/L	1.0	1		01/26/22 19:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Sample: H+0.35 (Mid) **Lab ID: 92584176003** Collected: 01/24/22 11:22 Received: 01/25/22 08:36 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Calcium	**17.7**	mg/L	1.0	1	01/25/22 13:29	01/26/22 13:24	7440-70-2	
Potassium	**1.7**	mg/L	0.20	1	01/25/22 13:29	01/25/22 21:46	7440-09-7	
Sodium	**5.5**	mg/L	1.0	1	01/25/22 13:29	01/25/22 21:46	7440-23-5	
Magnesium	**4.8**	mg/L	0.050	1	01/25/22 13:29	01/25/22 21:46	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	01/27/22 09:56	01/28/22 18:11	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:11	7440-48-4	
Lithium	ND	mg/L	0.030	1	01/27/22 09:56	01/28/22 18:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	01/27/22 09:56	01/28/22 18:11	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**108**	mg/L	10.0	1		01/28/22 10:32		
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	1		01/26/22 19:29	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/26/22 19:29	16984-48-8	
Sulfate	**8.3**	mg/L	1.0	1		01/26/22 19:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Sample: H+0.75 (Mid) **Lab ID: 92584176004** Collected: 01/24/22 11:15 Received: 01/25/22 08:36 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Calcium	**18.0**	mg/L	1.0	1	01/25/22 13:29	01/26/22 13:29	7440-70-2	
Potassium	**1.9**	mg/L	0.20	1	01/25/22 13:29	01/25/22 21:50	7440-09-7	
Sodium	**5.9**	mg/L	1.0	1	01/25/22 13:29	01/25/22 21:50	7440-23-5	
Magnesium	**4.9**	mg/L	0.050	1	01/25/22 13:29	01/25/22 21:50	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	01/27/22 09:56	01/28/22 18:17	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:17	7440-48-4	
Lithium	ND	mg/L	0.030	1	01/27/22 09:56	01/28/22 18:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	01/27/22 09:56	01/28/22 18:17	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**98.0**	mg/L	10.0	1		01/28/22 10:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**4.9**	mg/L	1.0	1		01/26/22 19:43	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/26/22 19:43	16984-48-8	
Sulfate	**9.1**	mg/L	1.0	1		01/26/22 19:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

QC Batch: 673704
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

METHOD BLANK: 3526379 Matrix: Water
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	01/25/22 20:59	
Magnesium	mg/L	ND	0.050	01/25/22 20:59	
Potassium	mg/L	ND	0.20	01/25/22 20:59	
Sodium	mg/L	ND	1.0	01/25/22 20:59	

LABORATORY CONTROL SAMPLE: 3526380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	110	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.1	112	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3526381 3526382

Parameter	Units	92584176001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	17.8	1	1	18.4	19.1	61	127	75-125	4	20	
Magnesium	mg/L	5.0	1	1	6.0	6.2	94	114	75-125	3	20	
Potassium	mg/L	1.7	1	1	2.7	2.8	105	114	75-125	3	20	
Sodium	mg/L	4.3	1	1	5.3	5.5	100	123	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

QC Batch: 674075
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

METHOD BLANK: 3528272 Matrix: Water
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	01/28/22 17:47	
Boron	mg/L	ND	0.040	01/28/22 17:47	
Cobalt	mg/L	ND	0.0050	01/28/22 17:47	
Lithium	mg/L	ND	0.030	01/28/22 17:47	
Molybdenum	mg/L	ND	0.010	01/28/22 17:47	

LABORATORY CONTROL SAMPLE: 3528273

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.092	92	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528285 3528286

Parameter	Units	92584409012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	1.8J ug/L	0.1	0.1	0.097	0.098	95	96	75-125	1	20	
Boron	mg/L	ND	1	1	1.1	1.0	106	102	75-125	4	20	
Cobalt	mg/L	2.0J ug/L	0.1	0.1	0.097	0.10	95	98	75-125	3	20	
Lithium	mg/L	16.4J ug/L	0.1	0.1	0.13	0.13	112	110	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

QC Batch: 674255
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

METHOD BLANK: 3528806 Matrix: Water
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	01/28/22 10:29	

LABORATORY CONTROL SAMPLE: 3528807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	385	96	80-120	

SAMPLE DUPLICATE: 3528809

Parameter	Units	92584530001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1740	1870	7	25	

SAMPLE DUPLICATE: 3530611

Parameter	Units	92583953011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1520	1540	1	25	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

QC Batch: 673904
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

METHOD BLANK: 3527216 Matrix: Water
Associated Lab Samples: 92584176001, 92584176002, 92584176003, 92584176004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	01/26/22 17:51	
Fluoride	mg/L	ND	0.10	01/26/22 17:51	
Sulfate	mg/L	ND	1.0	01/26/22 17:51	

LABORATORY CONTROL SAMPLE: 3527217

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	48.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3527218 3527219

Parameter	Units	92584141001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18.4	50	50	69.0	69.2	101	102	90-110	0	10	
Fluoride	mg/L	0.41	2.5	2.5	2.9	2.9	100	100	90-110	1	10	
Sulfate	mg/L	14.2	50	50	64.1	64.1	100	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3527220 3527221

Parameter	Units	92584178003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.1	50	50	53.4	54.4	102	105	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	93	96	90-110	3	10	
Sulfate	mg/L	11.6	50	50	62.4	63.0	102	103	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584176

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92584176001	**H-0.05 (Mid)**	EPA 3010A	673704	EPA 6010D	673782
92584176002	**H+0.25 (Mid)**	EPA 3010A	673704	EPA 6010D	673782
92584176003	**H+0.35 (Mid)**	EPA 3010A	673704	EPA 6010D	673782
92584176004	**H+0.75 (Mid)**	EPA 3010A	673704	EPA 6010D	673782
92584176001	**H-0.05 (Mid)**	EPA 3005A	674075	EPA 6020B	674297
92584176002	**H+0.25 (Mid)**	EPA 3005A	674075	EPA 6020B	674297
92584176003	**H+0.35 (Mid)**	EPA 3005A	674075	EPA 6020B	674297
92584176004	**H+0.75 (Mid)**	EPA 3005A	674075	EPA 6020B	674297
92584176001	**H-0.05 (Mid)**	SM 2540C-2015	674255		
92584176002	**H+0.25 (Mid)**	SM 2540C-2015	674255		
92584176003	**H+0.35 (Mid)**	SM 2540C-2015	674255		
92584176004	**H+0.75 (Mid)**	SM 2540C-2015	674255		
92584176001	**H-0.05 (Mid)**	EPA 300.0 Rev 2.1 1993	673904		
92584176002	**H+0.25 (Mid)**	EPA 300.0 Rev 2.1 1993	673904		
92584176003	**H+0.35 (Mid)**	EPA 300.0 Rev 2.1 1993	673904		
92584176004	**H+0.75 (Mid)**	EPA 300.0 Rev 2.1 1993	673904		

WO# : 92584176

92584176

CHAIN-OF-CUSTODY / Analytical Request Docum

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

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	ARCADIS - Atlanta	Report To:	Kristen Jurinko, Allison Keefer, Ben Hodges	Attention:	Kristen Jurinko
Address:	2839 Paces Ferry Rd	Copy To:	Warren Johnson	Company Name:	GPC
	Atlanta, GA 30339			Address:	
Email:	warren.johnson@arcadis.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	678.485.5298 Fax	Project Name:	Plant Hammond	Pace Project Manager:	Mayia.Parks@pacelabs.com,
Requested Due Date:	5 day TAT	Project #:		Pace Profile #:	2239

Regulatory Agency	
State / Location	GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	CCR App III[1]	Major Ions[2]	Cobalt	Molybdenum	Residual Chlorine (Y/N)
1	H-0.05 (Mid)	WT	G	1/24/22	1138														X	X	X	X	
2	H+0.25 (Mid)	WT	G	1/24/2022	1129														X	X	X	X	
3	H+0.35 (Mid)	WT	G	1/24/2022	1122														X	X	X	X	
4	H+0.75 (Mid)	WT	G	1/24/2022	1115														X	X	X	X	
5																							
6																							
7																							
8																							
9																							
10																							
11																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
CCR App III[1] - Boron, Calcium, Chloride, Florida, Sulfate, TDS	[signature] / Arcadis	1/25/22	0836	[signature] Pace	1/25/22	0836	
Major Ions - Mg, Na, K, total alkalinity, bicarbonate alkalinity							

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Garrett Grabowski				
SIGNATURE of SAMPLER:	[signature]	DATE Signed:	1-25-22	TEMP in C	Received on Ice (Y/N) / Custody Sealed Cooler (Y/N) / Samples Intact (Y/N)

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: ArcadAtl

Project #: **WO#: 92584176**

PM: MP Due Date: 02/01/22
CLIENT: GA-ArcadAtl

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☑ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: MT 1/25/22

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 214 ☑ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 4.5 **Correction Factor:** Add/Subtract (°C) +0.1

Cooler Temp Corrected (°C): 4.6

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☐ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY **Field Data Required?** ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace Analytical	Document Name: **Bottle Identification Form (BIF)**	Document Issued: November 15,-2021 Page 1 of 1
	Document No.: **F-CAR-CS-043-Rev.01**	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.**

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

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

Project #

WO#: 92584176

PM: MP Due Date: 02/01/22

CLIENT: GA-ArcadAtl

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 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 (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
	1		2	1			1																							
	2		2	1			1																							
	3		2	1			1																							
	4		2	1			1																							
	5																													
	6																													
	7																													
	8																													
	9																													
	10																													
	11																													
	12																													

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 (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

January 27, 2022

Maiya Parks
Pace Analytical Atlanta

110 Technology Pkwy
Peachtree Corners GA 30092

RE: 92584176

Dear Maiya Parks: Order No: 2201R34

Analytical Environmental Services, Inc. received 4 samples on 1/26/2022 7:55:00 AM for the analyses presented in following report.

"No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/21-06/30/22.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/22 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.
These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Paris Masoudi

Paris Masoudi

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

2201R34

Chain of Custody

PASI Charlotte Laboratory

Pace Analytical®
www.pacelabs.com

Workorder: 92584176 **Workorder Name:** Plant Hammond-CCR Ash Pond **Results Requested By:** 2/1/2022

Report / Invoice To	Subcontract To	Requested Analysis
Maiya Parks Pace Analytical Atlanta 110 Technology Parkway Peachtree Corners, GA 30092 Phone (770)734-4200 Email: maiya.parks@pacelabs.com	AES Atlanta	P.O. 92584176MP

State of Sample Origin: GA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	2320B Alkalinity	LAB USE ONLY
1	H-0.05 (Mid)	1/24/2022 11:38	92584176001	Water	1	X	
2	H+0.25 (Mid)	1/24/2022 11:29	92584176002	Water	1	X	
3	H+0.35 (Mid)	1/24/2022 11:22	92584176003	Water	1	X	
4	H+0.75 (Mid)	1/24/2022 11:15	92584176004	Water	1	X	
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Williams /PAA	1/26/22 0765	Dayen Campbell	1/26/22 7:55
2				
3				

Comments: Total & BiCarb Alk

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

Client:	Pace Analytical Atlanta	**Client Sample ID:**	H-0.05 (MID)
Project Name:	92584176	**Collection Date:**	1/24/2022 11:38:00 AM
Lab ID:	2201R34-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	58.5	10.0		mg/L	R475961	1	01/26/2022 14:55	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	58.7	3.00		mg/L	R475961	1	01/26/2022 14:55	GY

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Pace Analytical Atlanta	**Client Sample ID:**	H+0.25 (MID)
Project Name:	92584176	**Collection Date:**	1/24/2022 11:29:00 AM
Lab ID:	2201R34-002	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	56.4	10.0		mg/L	R475961	1	01/26/2022 14:55	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	56.4	3.00		mg/L	R475961	1	01/26/2022 14:55	GY

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Pace Analytical Atlanta	**Client Sample ID:**	H+0.35 (MID)
Project Name:	92584176	**Collection Date:**	1/24/2022 11:22:00 AM
Lab ID:	2201R34-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	55.4	10.0		mg/L	R475961	1	01/26/2022 14:55	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	55.4	3.00		mg/L	R475961	1	01/26/2022 14:55	GY

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Pace Analytical Atlanta	**Client Sample ID:**	H+0.75 (MID)
Project Name:	92584176	**Collection Date:**	1/24/2022 11:15:00 AM
Lab ID:	2201R34-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	54.1	10.0		mg/L	R475961	1	01/26/2022 14:55	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	54.1	3.00		mg/L	R475961	1	01/26/2022 14:55	GY

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear Save as

AES Analytical Environmental Services, Inc.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **Pace Analytical Atlanta** AES Work Order Number: **2201R34**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	●	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	○	●	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 3.4 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments:

I certify that I have completed sections 1-15 (dated initials). HM 1/26/22

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	○	○	●		
26.	Were trip blanks submitted?	○	○	●	listed on COC ☐ not listed on COC ☐	

27. Comments:

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). HM 1/26/22

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH. This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). HM 1/26/22

Locked

Client: Pace Analytical Atlanta
Project Name: 92584176
Workorder: 2201R34

ANALYTICAL QC SUMMARY REPORT

BatchID: R475961

Sample ID: **LCS-R475961**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **475961**	
SampleType: **LCS**	TestCode: **Alkalinity by SM2320B**				BatchID: **R475961**		Analysis Date: **01/26/2022**		Seq No: **10983447**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	124.4	3.00	125.0		99.5	90	110				

Sample ID: **2201O31-006CDUP**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **475961**	
SampleType: **DUP**	TestCode: **Alkalinity by SM2320B**				BatchID: **R475961**		Analysis Date: **01/26/2022**		Seq No: **10983453**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	536.5	3.00						539.3	0.522	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

February 01, 2022

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on January 25, 2022. 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.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

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 - Peachtree Corners, GA

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

Sincerely,

Maiya Parks
maiya.parks@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Ben Hodges, Georgia Power
Warren Johnson, ARCADIS - Atlanta
Allison Keefer, Southern Company

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92584178001	**AP2 Up**	Water	01/24/22 13:35	01/25/22 08:36
92584178002	**AP2 Mid**	Water	01/24/22 12:35	01/25/22 08:36
92584178003	**AP2 Down**	Water	01/24/22 12:24	01/25/22 08:36

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92584178001	**AP2 Up**	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	4	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92584178002	**AP2 Mid**	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92584178003	**AP2 Down**	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Sample: AP2 Up **Lab ID: 92584178001** Collected: 01/24/22 13:35 Received: 01/25/22 08:36 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Calcium	**28.8**	mg/L	1.0	1	01/25/22 13:29	01/26/22 13:48	7440-70-2	
Potassium	**0.56**	mg/L	0.20	1	01/25/22 13:29	01/25/22 22:09	7440-09-7	
Sodium	**1.9**	mg/L	1.0	1	01/25/22 13:29	01/25/22 22:09	7440-23-5	
Magnesium	**2.7**	mg/L	0.050	1	01/25/22 13:29	01/25/22 22:09	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	01/27/22 09:56	01/28/22 18:23	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:23	7440-48-4	
Lithium	ND	mg/L	0.030	1	01/27/22 09:56	01/28/22 18:23	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	01/27/22 09:56	01/28/22 18:23	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**102**	mg/L	10.0	1		01/31/22 19:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**1.2**	mg/L	1.0	1		01/26/22 21:07	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/26/22 21:07	16984-48-8	
Sulfate	**6.0**	mg/L	1.0	1		01/26/22 21:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Sample: AP2 Mid **Lab ID: 92584178002** Collected: 01/24/22 12:35 Received: 01/25/22 08:36 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Potassium	**0.60**	mg/L	0.20	1	01/25/22 13:29	01/25/22 22:14	7440-09-7	
Sodium	**1.9**	mg/L	1.0	1	01/25/22 13:29	01/25/22 22:14	7440-23-5	
Magnesium	**3.0**	mg/L	0.050	1	01/25/22 13:29	01/25/22 22:14	7439-95-4	
Calcium	**31.9**	mg/L	1.0	1	01/25/22 13:29	01/26/22 13:53	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:29	7440-38-2	
Boron	**0.043**	mg/L	0.040	1	01/27/22 09:56	01/28/22 18:29	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:29	7440-48-4	
Lithium	ND	mg/L	0.030	1	01/27/22 09:56	01/28/22 18:29	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	01/27/22 09:56	01/28/22 18:29	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**95.0**	mg/L	10.0	1		01/31/22 19:10		
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	1		01/26/22 21:20	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/26/22 21:20	16984-48-8	
Sulfate	**11.4**	mg/L	1.0	1		01/26/22 21:20	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Sample: AP2 Down **Lab ID: 92584178003** Collected: 01/24/22 12:24 Received: 01/25/22 08:36 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Potassium	**0.62**	mg/L	0.20	1	01/25/22 13:29	01/25/22 22:19	7440-09-7	
Sodium	**1.9**	mg/L	1.0	1	01/25/22 13:29	01/25/22 22:19	7440-23-5	
Magnesium	**3.1**	mg/L	0.050	1	01/25/22 13:29	01/25/22 22:19	7439-95-4	
Calcium	**31.9**	mg/L	1.0	1	01/25/22 13:29	01/26/22 13:57	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:34	7440-38-2	
Boron	**0.041**	mg/L	0.040	1	01/27/22 09:56	01/28/22 18:34	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	01/27/22 09:56	01/28/22 18:34	7440-48-4	
Lithium	ND	mg/L	0.030	1	01/27/22 09:56	01/28/22 18:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	01/27/22 09:56	01/28/22 18:34	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	**117**	mg/L	10.0	1		01/31/22 19:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	**2.1**	mg/L	1.0	1		01/26/22 21:34	16887-00-6	
Fluoride	ND	mg/L	0.10	1		01/26/22 21:34	16984-48-8	
Sulfate	**11.6**	mg/L	1.0	1		01/26/22 21:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

QC Batch: 673704
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584178001, 92584178002, 92584178003

METHOD BLANK: 3526379 Matrix: Water
Associated Lab Samples: 92584178001, 92584178002, 92584178003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	01/25/22 20:59	
Magnesium	mg/L	ND	0.050	01/25/22 20:59	
Potassium	mg/L	ND	0.20	01/25/22 20:59	
Sodium	mg/L	ND	1.0	01/25/22 20:59	

LABORATORY CONTROL SAMPLE: 3526380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	110	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.1	112	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3526381 3526382

Parameter	Units	92584176001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	17.8	1	1	18.4	19.1	61	127	75-125	4	20	
Magnesium	mg/L	5.0	1	1	6.0	6.2	94	114	75-125	3	20	
Potassium	mg/L	1.7	1	1	2.7	2.8	105	114	75-125	3	20	
Sodium	mg/L	4.3	1	1	5.3	5.5	100	123	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

QC Batch: 674075
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584178001, 92584178002, 92584178003

METHOD BLANK: 3528272 Matrix: Water
Associated Lab Samples: 92584178001, 92584178002, 92584178003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	01/28/22 17:47	
Boron	mg/L	ND	0.040	01/28/22 17:47	
Cobalt	mg/L	ND	0.0050	01/28/22 17:47	
Lithium	mg/L	ND	0.030	01/28/22 17:47	
Molybdenum	mg/L	ND	0.010	01/28/22 17:47	

LABORATORY CONTROL SAMPLE: 3528273

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.092	92	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3528285 3528286

Parameter	Units	92584409012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	1.8J ug/L	0.1	0.1	0.097	0.098	95	96	75-125	1	20	
Boron	mg/L	ND	1	1	1.1	1.0	106	102	75-125	4	20	
Cobalt	mg/L	2.0J ug/L	0.1	0.1	0.097	0.10	95	98	75-125	3	20	
Lithium	mg/L	16.4J ug/L	0.1	0.1	0.13	0.13	112	110	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

QC Batch: 674961
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92584178001, 92584178002, 92584178003

METHOD BLANK: 3532863 Matrix: Water
Associated Lab Samples: 92584178001, 92584178002, 92584178003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	01/31/22 19:09	

LABORATORY CONTROL SAMPLE: 3532864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3532865

Parameter	Units	92583955011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	502	526	5	25	

SAMPLE DUPLICATE: 3532866

Parameter	Units	92583953014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	426	422	1	25	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

QC Batch: 673904
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92584178001, 92584178002, 92584178003

METHOD BLANK: 3527216 Matrix: Water
Associated Lab Samples: 92584178001, 92584178002, 92584178003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	01/26/22 17:51	
Fluoride	mg/L	ND	0.10	01/26/22 17:51	
Sulfate	mg/L	ND	1.0	01/26/22 17:51	

LABORATORY CONTROL SAMPLE: 3527217

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	48.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3527218 3527219

Parameter	Units	92584141001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18.4	50	50	69.0	69.2	101	102	90-110	0	10	
Fluoride	mg/L	0.41	2.5	2.5	2.9	2.9	100	100	90-110	1	10	
Sulfate	mg/L	14.2	50	50	64.1	64.1	100	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3527220 3527221

Parameter	Units	92584178003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.1	50	50	53.4	54.4	102	105	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	93	96	90-110	3	10	
Sulfate	mg/L	11.6	50	50	62.4	63.0	102	103	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond-CCR Ash Pond
Pace Project No.: 92584178

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92584178001	**AP2 Up**	EPA 3010A	673704	EPA 6010D	673782
92584178002	**AP2 Mid**	EPA 3010A	673704	EPA 6010D	673782
92584178003	**AP2 Down**	EPA 3010A	673704	EPA 6010D	673782
92584178001	**AP2 Up**	EPA 3005A	674075	EPA 6020B	674297
92584178002	**AP2 Mid**	EPA 3005A	674075	EPA 6020B	674297
92584178003	**AP2 Down**	EPA 3005A	674075	EPA 6020B	674297
92584178001	**AP2 Up**	SM 2540C-2015	674961		
92584178002	**AP2 Mid**	SM 2540C-2015	674961		
92584178003	**AP2 Down**	SM 2540C-2015	674961		
92584178001	**AP2 Up**	EPA 300.0 Rev 2.1 1993	673904		
92584178002	**AP2 Mid**	EPA 300.0 Rev 2.1 1993	673904		
92584178003	**AP2 Down**	EPA 300.0 Rev 2.1 1993	673904		

WO# : 92584178

92584178

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Docum

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	ARCADIS - Atlanta	Report To:	Kristen Jurinko, Allison Keefer, Ben Hodges	Attention:	Kristen Jurinko
Address:	2839 Paces Ferry Rd	Copy To:	Warren Johnson	Company Name:	GPC
	Atlanta, GA 30339			Address:	
Email:	warren.johnson@arcadis.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	678.485.5298 Fax	Project Name:	Plant Hammond	Pace Project Manager:	Mayla.Parks@pacelabs.com,
Requested Due Date:	5 day TAT	Project #:		Pace Profile #:	2239

Regulatory Agency	
State / Location	GA

SAMPLE ID: One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	CCR App III[1]	Major Ions[2]	Cobalt	Lead	Molybdenum	Residual Chlorine (Y/N)
1	AP2 UP	WT	G	1/24/2022	1335														X	X	X	X	X	
2	AP2 Mid	WT	G	1/24/2022	1235														X	X	X	X	X	
3	AP2 Down	WT	G	1/24/2022	1224														X	X	X	X	X	
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
CCR App III[1] - Boron, Calcium, Chloride, Floride, Sulfate, TDS	[signature] / Arcadis	1/25/22	0836	[signature] Pace	1/25/22	0836	
Major Ions - Mg, Na, K, total alkalinity, bicarbonate alkalinity							
Data on COC is accurate							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Garrett Grabowski

SIGNATURE of SAMPLER: [signature] DATE Signed: 1-25-22

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

Pace Analytical®	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: ArcadAtl

Project #

WO#: 92584178
PM: MP **Due Date: 02/01/22**
CLIENT: GA-ArcadAtl

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: MT 1/25/22

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 214 ☑ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 4.5 **Correction Factor:** Add/Subtract (°C) +0.1

Cooler Temp Corrected (°C): 4.6

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☐ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace Analytical®	Document Name: **Bottle Identification Form (BIF)**	Document Issued: November 15,.2021 Page 1 of 1
	Document No.: **F-CAR-CS-043-Rev.01**	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.**

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

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

Project # WO# : 92584178

PM: MP Due Date: 02/01/22

CLIENT: GA-ArcadAtl

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-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)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
	1		2	1			1																							
	2		2	1			1																							
	3		2	1			1																							
	4																													
	5																													
	6																													
	7																													
	8																													
	9																													
	10																													
	11																													
	12																													

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 (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

AES

January 27, 2022

Maiya Parks
Pace Analytical Atlanta

110 Technology Pkwy
Peachtree Corners GA 30092

RE: 92584178

Dear Maiya Parks: Order No: 2201R35

Analytical Environmental Services, Inc. received 3 samples on 1/26/2022 7:55:00 AM for the analyses presented in following report.

"No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/21-06/30/22.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/22 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.
These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Paris Masoudi

Paris Masoudi

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

2201R35

Chain of Custody

PASI Charlotte Laboratory

Pace Analytical®
www.pacelabs.com

Workorder: 92584178 **Workorder Name:** Plant Hammond-CCR Ash Pond **Results Requested By:** 2/1/2022

Report / Invoice To	Subcontract To	Requested Analysis
Maiya Parks Pace Analytical Atlanta 110 Technology Parkway Peachtree Corners, GA 30092 Phone (770)734-4200 Email: maiya.parks@pacelabs.com	AES Atlanta P.O. 92584178MP	

State of Sample Origin: GA

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	2320B Alkalinity	LAB USE ONLY
1	AP2 Up	1/24/2022 13:35	92584178001	Water	1	X	
2	AP2 Mid	1/24/2022 12:35	92584178002	Water	1	X	
3	AP2 Down	1/24/2022 12:24	92584178003	Water	1	X	
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Williams /Pace	1/26/22 0755	Dajie Campbell	1/26/22 7:55
2				
3				

Comments: Total & BiCarb Alk

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

Analytical Environmental Services, Inc **Date:** 27-Jan-22

Client:	Pace Analytical Atlanta	**Client Sample ID:**	AP2 UP
Project Name:	92584178	**Collection Date:**	1/24/2022 1:35:00 PM
Lab ID:	2201R35-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	75.8	10.0		mg/L	R475961	1	01/26/2022 14:55	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	75.8	3.00		mg/L	R475961	1	01/26/2022 14:55	GY

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Pace Analytical Atlanta	**Client Sample ID:**	AP2 MID
Project Name:	92584178	**Collection Date:**	1/24/2022 12:35:00 PM
Lab ID:	2201R35-002	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	75.5	10.0		mg/L	R475961	1	01/26/2022 14:55	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	75.5	3.00		mg/L	R475961	1	01/26/2022 14:55	GY

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Pace Analytical Atlanta	**Client Sample ID:**	AP2 DOWN
Project Name:	92584178	**Collection Date:**	1/24/2022 12:24:00 PM
Lab ID:	2201R35-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CARBON DIOXIDE SM4500-CO2-D								
Bicarbonate Alkalinity	76.4	10.0		mg/L	R475961	1	01/26/2022 14:55	GY
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	76.4	3.00		mg/L	R475961	1	01/26/2022 14:55	GY

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear Save as

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **Pace Analytical Atlanta** AES Work Order Number: **2201R35**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	●	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	○	●	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 3.4 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments:

I certify that I have completed sections 1-15 (dated initials). HM 1/26/22

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	○	○	●		
26.	Were trip blanks submitted?	○	○	●	listed on COC ☐ not listed on COC ☐	

27. Comments:

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). HM 1/26/22

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH. This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). HM 1/26/22

Locked

Client: Pace Analytical Atlanta
Project Name: 92584178
Workorder: 2201R35

ANALYTICAL QC SUMMARY REPORT

BatchID: R475961

Sample ID: **LCS-R475961**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **475961**	
SampleType: **LCS**	TestCode: **Alkalinity by SM2320B**				BatchID: **R475961**		Analysis Date: **01/26/2022**		Seq No: **10983447**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	124.4	3.00	125.0		99.5	90	110				

Sample ID: **2201O31-006CDUP**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **475961**	
SampleType: **DUP**	TestCode: **Alkalinity by SM2320B**				BatchID: **R475961**		Analysis Date: **01/26/2022**		Seq No: **10983453**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	536.5	3.00						539.3	0.522	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report

Plant Hammond AP-2 (Tributary) Surface Water Samples 01/24/2022

Sample ID	Time	Temp(C)	pH	OPR (mV)	DO (mg/L)	Turbidity (NTU)	Conductance – (mS/cm)	Coordinates
AP2 Up	13:35	13.05	8.35	-90.1	8.31	4.31	0.129	34.252514, -85.353819
AP2 Mid	12:35	13.30	7.47	-87.5	9.19	3.86	0.141	34.251308, 85.354189
AP2 Down	12:24	13.03	7.20	-58.7	10.11	3.8	0.141	34.249366, -85.354189

Plant Hammond (Coosa River) Surface Water Samples 01/24/2022

Sample ID	Time	Total Depth	Sample Depth	Temp(C)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Conductance – (mS/cm)	Coordinates
H-0.05 (Mid)	11:38	4.6	2.30	6.90	7.35	-88.5	11.68	18.1	0.144	34.249957, -85.337365
H+0.25 (Mid)	11:29	5.3	2.60	7.10	7.43	-87.0	11.67	12.6	0.150	34.249261, -85.350334
H+0.35 (Mid)	11:22	2.7	1.40	7.14	7.56	-91.5	12.08	13.0	0.150	34.249103, -85.351854
H+0.75 (Mid)	11:15	4.9	2.50	7.22	7.82	-113.7	13.54	15.8	0.152	34.248819, -85.356505

February 2022

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

March 23, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-2
Pace Project No.: 92587322

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 03, 2022 and February 11, 2022. 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 - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

Revision 1: This revision was issued on 3/23/22 to include updated COCs.

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

Sincerely,

Nicole D'Oleo

Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Anna Bottum, ERM
Andrea Brazell, ERM
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Lacy Smith, ERM
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Caitlin Tillema, ERM
Christine Weaver, ERM
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Pace Analytical Services Charlotte
South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92587322001	HGWA-4	Water	02/07/22 14:28	02/09/22 12:40
92587322002	HGWA-5	Water	02/07/22 16:51	02/09/22 12:40
92587322003	HGWA-6	Water	02/07/22 16:31	02/09/22 12:40
92587322004	HGWA-42D	Water	02/07/22 15:57	02/09/22 12:40
92587322005	HGWC-15	Water	02/08/22 13:49	02/09/22 12:40
92587322006	HGWC-16	Water	02/08/22 12:09	02/09/22 12:40
92587322007	HGWC-17	Water	02/08/22 10:33	02/09/22 12:40
92587322008	HGWC-18	Water	02/08/22 15:40	02/09/22 12:40
92587322009	MW-21D	Water	02/08/22 14:30	02/09/22 12:40
92587322010	MW-22	Water	02/08/22 16:59	02/09/22 12:40
92587322011	MW-33	Water	02/08/22 16:35	02/09/22 12:40
92587322012	MW-35	Water	02/08/22 12:39	02/09/22 12:40
92587322013	MW-37D	Water	02/08/22 12:14	02/09/22 12:40
92587322014	MW-51	Water	02/08/22 14:10	02/09/22 12:40
92587322015	DUP-2	Water	02/08/22 00:00	02/09/22 12:40
92587322017	HGWA-44D	Water	02/01/22 13:35	02/03/22 12:32
92587322018	HGWA-2	Water	02/01/22 11:52	02/03/22 12:32
92587322019	HGWA-3	Water	02/01/22 09:58	02/03/22 12:32
92587322020	HGWA-1	Water	02/01/22 12:13	02/03/22 12:32
92587322021	HGWA-43D	Water	02/01/22 10:28	02/03/22 12:32
92587322022	HGWC-14	Water	02/09/22 15:23	02/11/22 11:35
92587322023	MW-34D	Water	02/09/22 13:50	02/11/22 11:35
92587322024	MW-23D	Water	02/10/22 09:49	02/11/22 11:35
92587322025	EB-2	Water	02/10/22 10:25	02/11/22 11:35
92587322026	FB-2	Water	02/10/22 10:30	02/11/22 11:35

Pace Analytical Services, LLC
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92587322001	**HGWA-4**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322002	**HGWA-5**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322003	**HGWA-6**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322004	**HGWA-42D**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322005	**HGWC-15**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322006	**HGWC-16**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322007	**HGWC-17**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322008	**HGWC-18**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322009	**MW-21D**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322010	**MW-22**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322011	**MW-33**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322012	**MW-35**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322013	**MW-37D**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322014	**MW-51**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322015	**DUP-2**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322017	**HGWA-44D**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322018	**HGWA-2**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322019	**HGWA-3**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322020	**HGWA-1**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322021	**HGWA-43D**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587322022	**HGWC-14**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587322023	**MW-34D**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587322024	**MW-23D**	EPA 6010D	KH	1

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110 Technology Parkway
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587322025	**EB-2**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587322026	**FB-2**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322001	**HGWA-4**					
	Performed by	CUSTOMER			02/09/22 17:31	
	pH	5.24	Std. Units		02/09/22 17:31	
EPA 6010D	Calcium	5.9	mg/L	1.0	02/25/22 16:56	
EPA 6020B	Barium	0.028	mg/L	0.0050	02/25/22 16:31	
EPA 6020B	Beryllium	0.00017J	mg/L	0.00050	02/25/22 16:31	
EPA 6020B	Boron	0.017J	mg/L	0.040	02/25/22 16:31	
EPA 6020B	Cobalt	0.00068J	mg/L	0.0050	02/25/22 16:31	
EPA 6020B	Lithium	0.0013J	mg/L	0.030	02/25/22 16:31	
SM 2540C-2015	Total Dissolved Solids	54.0	mg/L	10.0	02/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	2.4	mg/L	1.0	02/16/22 09:30	
EPA 300.0 Rev 2.1 1993	Sulfate	2.9	mg/L	1.0	02/16/22 09:30	
92587322002	**HGWA-5**					
	Performed by	CUSTOMER			02/09/22 17:31	
	pH	6.51	Std. Units		02/09/22 17:31	
EPA 6010D	Calcium	30.0	mg/L	1.0	02/25/22 17:01	
EPA 6020B	Barium	0.038	mg/L	0.0050	02/25/22 16:37	
EPA 6020B	Cobalt	0.00055J	mg/L	0.0050	02/25/22 16:37	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	02/25/22 16:37	
SM 2540C-2015	Total Dissolved Solids	135	mg/L	10.0	02/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	1.4	mg/L	1.0	02/16/22 09:45	
EPA 300.0 Rev 2.1 1993	Sulfate	20.6	mg/L	1.0	02/16/22 09:45	
92587322003	**HGWA-6**					
	Performed by	CUSTOMER			02/09/22 17:31	
	pH	7.65	Std. Units		02/09/22 17:31	
EPA 6010D	Calcium	53.4	mg/L	1.0	02/25/22 18:53	M1
EPA 6020B	Antimony	0.0014J	mg/L	0.0030	02/25/22 17:01	
EPA 6020B	Barium	0.18	mg/L	0.0050	02/25/22 17:01	
EPA 6020B	Boron	0.019J	mg/L	0.040	02/25/22 17:01	
EPA 6020B	Lithium	0.0097J	mg/L	0.030	02/25/22 17:01	
SM 2540C-2015	Total Dissolved Solids	224	mg/L	10.0	02/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	1.1	mg/L	1.0	02/16/22 10:00	
EPA 300.0 Rev 2.1 1993	Sulfate	33.0	mg/L	1.0	02/16/22 10:00	
92587322004	**HGWA-42D**					
	Performed by	CUSTOMER			02/09/22 17:32	
	pH	7.85	Std. Units		02/09/22 17:32	
EPA 6010D	Calcium	48.7	mg/L	1.0	02/25/22 17:06	
EPA 6020B	Barium	0.18	mg/L	0.0050	02/25/22 17:07	
EPA 6020B	Boron	0.047	mg/L	0.040	02/25/22 17:07	
EPA 6020B	Lithium	0.0097J	mg/L	0.030	02/25/22 17:07	
EPA 6020B	Molybdenum	0.00099J	mg/L	0.010	02/25/22 17:07	
SM 2540C-2015	Total Dissolved Solids	190	mg/L	10.0	02/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3.1	mg/L	1.0	02/16/22 10:15	
EPA 300.0 Rev 2.1 1993	Fluoride	0.085J	mg/L	0.10	02/16/22 10:15	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322004	**HGWA-42D**					
EPA 300.0 Rev 2.1 1993	Sulfate	10.4	mg/L	1.0	02/16/22 10:15	
92587322005	**HGWC-15**					
	Performed by	CUSTOMER			02/09/22 17:33	
	pH	6.04	Std. Units		02/09/22 17:33	
EPA 6010D	Calcium	186	mg/L	1.0	02/28/22 20:54	
EPA 6020B	Antimony	0.0020J	mg/L	0.0030	02/25/22 17:13	
EPA 6020B	Barium	0.0098	mg/L	0.0050	02/25/22 17:13	
EPA 6020B	Boron	1.9	mg/L	0.040	02/25/22 17:13	
EPA 6020B	Cadmium	0.0011	mg/L	0.00050	02/25/22 17:13	
EPA 6020B	Cobalt	0.0081	mg/L	0.0050	02/25/22 17:13	
EPA 6020B	Lithium	0.014J	mg/L	0.030	02/25/22 17:13	
SM 2540C-2015	Total Dissolved Solids	866	mg/L	20.0	02/15/22 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	76.6	mg/L	1.0	02/16/22 10:30	
EPA 300.0 Rev 2.1 1993	Sulfate	360	mg/L	7.0	02/16/22 15:00	
92587322006	**HGWC-16**					
	Performed by	CUSTOMER			02/09/22 17:33	
	pH	7.18	Std. Units		02/09/22 17:33	
EPA 6010D	Calcium	218	mg/L	1.0	02/28/22 21:08	
EPA 6020B	Barium	0.10	mg/L	0.0050	02/25/22 18:37	
EPA 6020B	Boron	2.6	mg/L	0.40	02/28/22 18:38	
EPA 6020B	Lithium	0.0034J	mg/L	0.030	02/25/22 18:37	
SM 2540C-2015	Total Dissolved Solids	852	mg/L	20.0	02/15/22 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	96.4	mg/L	1.0	02/16/22 11:15	
EPA 300.0 Rev 2.1 1993	Sulfate	238	mg/L	5.0	02/16/22 15:15	
92587322007	**HGWC-17**					
	Performed by	CUSTOMER			02/09/22 17:33	
	pH	6.42	Std. Units		02/09/22 17:33	
EPA 6010D	Calcium	280	mg/L	1.0	02/28/22 21:13	
EPA 6020B	Arsenic	0.0017J	mg/L	0.0050	02/25/22 18:44	
EPA 6020B	Barium	0.021	mg/L	0.0050	02/25/22 18:44	
EPA 6020B	Boron	7.8	mg/L	0.40	02/28/22 18:44	
EPA 6020B	Cobalt	0.0066	mg/L	0.0050	02/25/22 18:44	
EPA 6020B	Lithium	0.0014J	mg/L	0.030	02/25/22 18:44	
SM 2540C-2015	Total Dissolved Solids	1160	mg/L	20.0	02/15/22 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	117	mg/L	8.0	02/16/22 15:30	
EPA 300.0 Rev 2.1 1993	Fluoride	0.055J	mg/L	0.10	02/16/22 11:30	
EPA 300.0 Rev 2.1 1993	Sulfate	364	mg/L	8.0	02/16/22 15:30	M1
92587322008	**HGWC-18**					
	Performed by	CUSTOMER			02/09/22 17:34	
	pH	4.59	Std. Units		02/09/22 17:34	
EPA 6010D	Calcium	418	mg/L	10.0	02/28/22 21:18	
EPA 6020B	Arsenic	0.0050J	mg/L	0.0050	02/25/22 18:50	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322008	**HGWC-18**					
EPA 6020B	Barium	0.020	mg/L	0.0050	02/25/22 18:50	
EPA 6020B	Beryllium	0.0026	mg/L	0.0025	02/28/22 18:50	
EPA 6020B	Boron	8.1	mg/L	0.20	02/28/22 18:50	
EPA 6020B	Cadmium	0.00076	mg/L	0.00050	02/25/22 18:50	
EPA 6020B	Cobalt	0.16	mg/L	0.0050	02/25/22 18:50	
EPA 6020B	Lead	0.00090J	mg/L	0.0010	02/25/22 18:50	
EPA 6020B	Lithium	0.010J	mg/L	0.030	02/25/22 18:50	
EPA 6020B	Selenium	0.0082	mg/L	0.0050	02/25/22 18:50	
SM 2540C-2015	Total Dissolved Solids	1770	mg/L	50.0	02/15/22 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	105	mg/L	19.0	02/16/22 16:14	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	02/16/22 12:15	
EPA 300.0 Rev 2.1 1993	Sulfate	960	mg/L	19.0	02/16/22 16:14	
92587322009	**MW-21D**					
	Performed by	CUSTOMER			02/09/22 17:34	
	pH	7.09	Std. Units		02/09/22 17:34	
EPA 6010D	Calcium	366	mg/L	10.0	02/28/22 21:23	
EPA 6020B	Barium	0.033	mg/L	0.0050	02/25/22 18:56	
EPA 6020B	Boron	5.9	mg/L	0.40	02/28/22 18:56	
EPA 6020B	Lithium	0.022J	mg/L	0.030	02/25/22 18:56	
EPA 6020B	Molybdenum	0.016	mg/L	0.010	02/25/22 18:56	
SM 2540C-2015	Total Dissolved Solids	1810	mg/L	100	02/15/22 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	196	mg/L	16.0	02/16/22 20:00	
EPA 300.0 Rev 2.1 1993	Sulfate	779	mg/L	16.0	02/16/22 20:00	
92587322010	**MW-22**					
	Performed by	CUSTOMER			02/09/22 17:34	
	pH	5.37	Std. Units		02/09/22 17:34	
EPA 6010D	Calcium	221	mg/L	1.0	02/28/22 21:27	
EPA 6020B	Barium	0.014	mg/L	0.0050	02/25/22 19:02	
EPA 6020B	Beryllium	0.000079J	mg/L	0.00050	02/25/22 19:02	
EPA 6020B	Boron	3.2	mg/L	0.40	02/28/22 19:29	
EPA 6020B	Cadmium	0.0020	mg/L	0.00050	02/25/22 19:02	
EPA 6020B	Cobalt	0.034	mg/L	0.0050	02/25/22 19:02	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	02/25/22 19:02	
SM 2540C-2015	Total Dissolved Solids	1070	mg/L	20.0	02/15/22 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	110	mg/L	9.0	02/16/22 18:46	
EPA 300.0 Rev 2.1 1993	Sulfate	449	mg/L	9.0	02/16/22 18:46	
92587322011	**MW-33**					
	Performed by	CUSTOMER			02/09/22 17:34	
	pH	4.42	Std. Units		02/09/22 17:34	
EPA 6010D	Calcium	548	mg/L	10.0	03/02/22 15:05	
EPA 6020B	Arsenic	0.0069	mg/L	0.0050	02/25/22 19:08	
EPA 6020B	Barium	0.020	mg/L	0.0050	02/25/22 19:08	
EPA 6020B	Beryllium	0.00087J	mg/L	0.0025	02/28/22 19:35	D3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322011	**MW-33**					
EPA 6020B	Boron	8.4	mg/L	0.20	02/28/22 19:35	
EPA 6020B	Cadmium	0.00013J	mg/L	0.00050	02/25/22 19:08	
EPA 6020B	Cobalt	0.048	mg/L	0.0050	02/25/22 19:08	
EPA 6020B	Lead	0.0014	mg/L	0.0010	02/25/22 19:08	
EPA 6020B	Lithium	0.0010J	mg/L	0.030	02/25/22 19:08	
EPA 6020B	Selenium	0.0078	mg/L	0.0050	02/25/22 19:08	
EPA 6020B	Thallium	0.00025J	mg/L	0.0010	02/25/22 19:08	
SM 2540C-2015	Total Dissolved Solids	2480	mg/L	100	02/15/22 16:05	
EPA 300.0 Rev 2.1 1993	Chloride	166	mg/L	24.0	02/16/22 19:01	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	02/16/22 13:00	
EPA 300.0 Rev 2.1 1993	Sulfate	1220	mg/L	24.0	02/16/22 19:01	
92587322012	**MW-35**					
	Performed by	CUSTOMER			02/09/22 17:35	
	pH	4.86	Std. Units		02/09/22 17:35	
EPA 6010D	Calcium	519	mg/L	10.0	03/02/22 15:20	
EPA 6020B	Antimony	0.0029J	mg/L	0.0030	02/25/22 19:14	
EPA 6020B	Arsenic	0.0072	mg/L	0.0050	02/25/22 19:14	
EPA 6020B	Barium	0.023	mg/L	0.0050	02/25/22 19:14	
EPA 6020B	Beryllium	0.00070J	mg/L	0.0025	02/28/22 19:41	D3
EPA 6020B	Boron	10.8	mg/L	0.20	02/28/22 19:41	
EPA 6020B	Cadmium	0.0015	mg/L	0.00050	02/25/22 19:14	
EPA 6020B	Cobalt	0.090	mg/L	0.0050	02/25/22 19:14	
EPA 6020B	Lithium	0.0039J	mg/L	0.030	02/25/22 19:14	
EPA 6020B	Selenium	0.0083	mg/L	0.0050	02/25/22 19:14	
EPA 7470A	Mercury	0.00014J	mg/L	0.00020	02/25/22 13:15	
SM 2540C-2015	Total Dissolved Solids	2410	mg/L	100	02/15/22 16:05	
EPA 300.0 Rev 2.1 1993	Chloride	202	mg/L	23.0	02/16/22 19:16	
EPA 300.0 Rev 2.1 1993	Fluoride	0.065J	mg/L	0.10	02/16/22 13:15	
EPA 300.0 Rev 2.1 1993	Sulfate	1190	mg/L	23.0	02/16/22 19:16	
92587322013	**MW-37D**					
	Performed by	CUSTOMER			02/09/22 17:35	
	pH	7.63	Std. Units		02/09/22 17:35	
EPA 6010D	Calcium	167	mg/L	1.0	03/01/22 00:54	M1
EPA 6020B	Barium	0.11	mg/L	0.0050	02/25/22 20:49	
EPA 6020B	Boron	0.14	mg/L	0.040	02/28/22 16:55	
EPA 6020B	Lithium	0.029J	mg/L	0.030	02/28/22 16:55	
EPA 6020B	Molybdenum	0.0070J	mg/L	0.010	02/25/22 20:49	
SM 2540C-2015	Total Dissolved Solids	882	mg/L	20.0	02/15/22 16:05	
EPA 300.0 Rev 2.1 1993	Chloride	151	mg/L	5.0	02/16/22 19:30	
EPA 300.0 Rev 2.1 1993	Fluoride	0.055J	mg/L	0.10	02/16/22 13:30	
EPA 300.0 Rev 2.1 1993	Sulfate	248	mg/L	5.0	02/16/22 19:30	
92587322014	**MW-51**					
	Performed by	CUSTOMER			02/09/22 17:35	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322014	**MW-51**					
	pH	6.57	Std. Units		02/09/22 17:35	
EPA 6010D	Calcium	537	mg/L	10.0	03/02/22 15:25	
EPA 6020B	Arsenic	0.0046J	mg/L	0.0050	02/25/22 20:55	
EPA 6020B	Barium	0.046	mg/L	0.0050	02/25/22 20:55	
EPA 6020B	Beryllium	0.00011J	mg/L	0.00050	02/25/22 20:55	
EPA 6020B	Boron	10.5	mg/L	2.0	02/28/22 17:01	M1
EPA 6020B	Cadmium	0.00024J	mg/L	0.00050	02/25/22 20:55	
EPA 6020B	Cobalt	0.031	mg/L	0.0050	02/25/22 20:55	
EPA 6020B	Lithium	0.0010J	mg/L	0.030	02/25/22 20:55	
SM 2540C-2015	Total Dissolved Solids	2430	mg/L	100	02/15/22 16:05	
EPA 300.0 Rev 2.1 1993	Chloride	194	mg/L	15.0	02/19/22 17:18	
EPA 300.0 Rev 2.1 1993	Fluoride	0.078J	mg/L	0.10	02/18/22 23:56	
EPA 300.0 Rev 2.1 1993	Sulfate	1150	mg/L	15.0	02/19/22 17:18	
92587322015	**DUP-2**					
EPA 6010D	Calcium	188	mg/L	1.0	03/01/22 01:18	
EPA 6020B	Antimony	0.0017J	mg/L	0.0030	02/25/22 21:19	
EPA 6020B	Barium	0.013	mg/L	0.0050	02/25/22 21:19	
EPA 6020B	Boron	2.0	mg/L	0.40	02/28/22 17:18	
EPA 6020B	Cadmium	0.0013	mg/L	0.00050	02/25/22 21:19	
EPA 6020B	Cobalt	0.013	mg/L	0.0050	02/25/22 21:19	
EPA 6020B	Lithium	0.013J	mg/L	0.030	02/25/22 21:19	
SM 2540C-2015	Total Dissolved Solids	894	mg/L	20.0	02/15/22 16:05	
EPA 300.0 Rev 2.1 1993	Chloride	74.7	mg/L	1.0	02/16/22 14:15	
EPA 300.0 Rev 2.1 1993	Sulfate	361	mg/L	7.0	02/16/22 19:45	
92587322017	**HGWA-44D**					
	Performed by	CUSTOMER			02/09/22 17:36	
	pH	8.25	Std. Units		02/09/22 17:36	
EPA 6010D	Calcium	24.8	mg/L	1.0	02/17/22 16:48	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	02/18/22 17:43	
EPA 6020B	Arsenic	0.0025J	mg/L	0.0050	02/18/22 17:43	
EPA 6020B	Barium	0.23	mg/L	0.0050	02/18/22 17:43	
EPA 6020B	Boron	0.44	mg/L	0.040	02/18/22 17:43	
EPA 6020B	Chromium	0.0013J	mg/L	0.0050	02/18/22 17:43	
EPA 6020B	Lithium	0.048	mg/L	0.030	02/18/22 17:43	
EPA 6020B	Molybdenum	0.0055J	mg/L	0.010	02/18/22 17:43	
SM 2540C-2015	Total Dissolved Solids	444	mg/L	10.0	02/07/22 16:43	
EPA 300.0 Rev 2.1 1993	Chloride	44.8	mg/L	1.0	02/08/22 12:23	
EPA 300.0 Rev 2.1 1993	Fluoride	0.96	mg/L	0.10	02/08/22 12:23	
EPA 300.0 Rev 2.1 1993	Sulfate	56.3	mg/L	1.0	02/08/22 12:23	
92587322018	**HGWA-2**					
	Performed by	CUSTOMER			02/09/22 17:36	
	pH	5.24	Std. Units		02/09/22 17:36	
EPA 6010D	Calcium	27.2	mg/L	1.0	02/17/22 16:53	
EPA 6020B	Arsenic	0.0023J	mg/L	0.0050	02/18/22 17:49	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322018	**HGWA-2**					
EPA 6020B	Barium	0.13	mg/L	0.0050	02/18/22 17:49	
EPA 6020B	Beryllium	0.00020J	mg/L	0.00050	02/18/22 17:49	
EPA 6020B	Boron	0.056	mg/L	0.040	02/18/22 17:49	
EPA 6020B	Cadmium	0.00017J	mg/L	0.00050	02/18/22 17:49	
EPA 6020B	Cobalt	0.025	mg/L	0.0050	02/18/22 17:49	
EPA 6020B	Lithium	0.0017J	mg/L	0.030	02/18/22 17:49	
SM 2540C-2015	Total Dissolved Solids	156	mg/L	10.0	02/07/22 16:43	
EPA 300.0 Rev 2.1 1993	Chloride	7.0	mg/L	1.0	02/08/22 13:36	
EPA 300.0 Rev 2.1 1993	Sulfate	67.1	mg/L	1.0	02/08/22 13:36	
92587322019	**HGWA-3**					
	Performed by	CUSTOMER			02/09/22 17:36	
	pH	7.45	Std. Units		02/09/22 17:36	
EPA 6010D	Calcium	85.1	mg/L	1.0	02/17/22 16:58	
EPA 6020B	Arsenic	0.0024J	mg/L	0.0050	02/18/22 17:55	
EPA 6020B	Barium	0.12	mg/L	0.0050	02/18/22 17:55	
EPA 6020B	Boron	0.011J	mg/L	0.040	02/18/22 17:55	
EPA 6020B	Lithium	0.0037J	mg/L	0.030	02/18/22 17:55	
SM 2540C-2015	Total Dissolved Solids	350	mg/L	10.0	02/07/22 16:43	
EPA 300.0 Rev 2.1 1993	Chloride	5.7	mg/L	1.0	02/08/22 13:50	
EPA 300.0 Rev 2.1 1993	Sulfate	46.0	mg/L	1.0	02/08/22 13:50	
92587322020	**HGWA-1**					
	Performed by	CUSTOMER			02/09/22 17:36	
	pH	7.19	Std. Units		02/09/22 17:36	
EPA 6010D	Calcium	106	mg/L	1.0	02/17/22 17:02	
EPA 6020B	Arsenic	0.0016J	mg/L	0.0050	02/18/22 18:01	
EPA 6020B	Barium	0.031	mg/L	0.0050	02/18/22 18:01	
EPA 6020B	Boron	0.016J	mg/L	0.040	02/18/22 18:01	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	02/18/22 18:01	
SM 2540C-2015	Total Dissolved Solids	270	mg/L	10.0	02/07/22 16:44	
EPA 300.0 Rev 2.1 1993	Chloride	7.5	mg/L	1.0	02/08/22 14:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.064J	mg/L	0.10	02/08/22 14:03	
EPA 300.0 Rev 2.1 1993	Sulfate	43.7	mg/L	1.0	02/08/22 14:03	
92587322021	**HGWA-43D**					
	Performed by	CUSTOMER			02/09/22 17:37	
	pH	7.52	Std. Units		02/09/22 17:37	
EPA 6010D	Calcium	55.9	mg/L	1.0	02/17/22 17:07	
EPA 6020B	Arsenic	0.0036J	mg/L	0.0050	02/18/22 18:07	
EPA 6020B	Barium	0.29	mg/L	0.0050	02/18/22 18:07	
EPA 6020B	Boron	0.050	mg/L	0.040	02/18/22 18:07	
EPA 6020B	Lithium	0.0024J	mg/L	0.030	02/18/22 18:07	
EPA 6020B	Molybdenum	0.0036J	mg/L	0.010	02/18/22 18:07	
SM 2540C-2015	Total Dissolved Solids	156	mg/L	10.0	02/07/22 16:44	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	02/08/22 14:17	

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SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322021	**HGWA-43D**					
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	02/08/22 14:17	
EPA 300.0 Rev 2.1 1993	Sulfate	37.5	mg/L	1.0	02/08/22 14:17	
92587322022	**HGWC-14**					
	Performed by	CUSTOMER			02/11/22 15:57	
	pH	4.97	Std. Units		02/11/22 15:57	
EPA 6010D	Calcium	571	mg/L	10.0	03/02/22 15:30	
EPA 6020B	Arsenic	0.0077	mg/L	0.0050	02/25/22 22:37	
EPA 6020B	Barium	0.017	mg/L	0.0050	02/25/22 22:37	
EPA 6020B	Beryllium	0.00056	mg/L	0.00050	02/25/22 22:37	
EPA 6020B	Boron	9.9	mg/L	2.0	02/28/22 18:20	
EPA 6020B	Cobalt	0.038	mg/L	0.0050	02/25/22 22:37	
EPA 6020B	Lead	0.0014	mg/L	0.0010	02/25/22 22:37	
EPA 6020B	Selenium	0.0047J	mg/L	0.0050	02/25/22 22:37	
EPA 6020B	Thallium	0.00025J	mg/L	0.0010	02/25/22 22:37	
SM 2540C-2015	Total Dissolved Solids	2310	mg/L	100	02/16/22 13:54	
EPA 300.0 Rev 2.1 1993	Chloride	174	mg/L	24.0	02/18/22 00:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.053J	mg/L	0.10	02/17/22 13:11	
EPA 300.0 Rev 2.1 1993	Sulfate	1190	mg/L	24.0	02/18/22 00:24	
92587322023	**MW-34D**					
	Performed by	CUSTOMER			02/11/22 15:57	
	pH	7.21	Std. Units		02/11/22 15:57	
EPA 6010D	Calcium	557	mg/L	10.0	03/02/22 15:35	
EPA 6020B	Arsenic	0.0054	mg/L	0.0050	02/25/22 22:43	
EPA 6020B	Barium	0.040	mg/L	0.0050	02/25/22 22:43	
EPA 6020B	Beryllium	0.000065J	mg/L	0.00050	02/25/22 22:43	
EPA 6020B	Boron	9.6	mg/L	2.0	02/28/22 18:26	
EPA 6020B	Cadmium	0.00072	mg/L	0.00050	02/25/22 22:43	
EPA 6020B	Cobalt	0.0065	mg/L	0.0050	02/25/22 22:43	
EPA 6020B	Lithium	0.0022J	mg/L	0.030	02/25/22 22:43	
SM 2540C-2015	Total Dissolved Solids	2260	mg/L	100	02/16/22 13:54	
EPA 300.0 Rev 2.1 1993	Chloride	251	mg/L	21.0	02/18/22 00:38	
EPA 300.0 Rev 2.1 1993	Fluoride	0.051J	mg/L	0.10	02/17/22 13:26	
EPA 300.0 Rev 2.1 1993	Sulfate	1050	mg/L	21.0	02/18/22 00:38	
92587322024	**MW-23D**					
	Performed by	CUSTOMER			02/11/22 15:57	
	pH	6.87	Std. Units		02/11/22 15:57	
EPA 6010D	Calcium	288	mg/L	10.0	03/02/22 15:39	
EPA 6020B	Barium	0.050	mg/L	0.0050	02/25/22 23:01	
EPA 6020B	Boron	3.2	mg/L	0.40	02/28/22 18:32	
EPA 6020B	Cadmium	0.00024J	mg/L	0.00050	02/25/22 23:01	
EPA 6020B	Cobalt	0.0010J	mg/L	0.0050	02/25/22 23:01	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	02/25/22 23:01	
EPA 6020B	Molybdenum	0.0034J	mg/L	0.010	02/25/22 23:01	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587322024	**MW-23D**					
SM 2540C-2015	Total Dissolved Solids	1260	mg/L	50.0	02/16/22 14:18	
EPA 300.0 Rev 2.1 1993	Chloride	138	mg/L	9.0	02/18/22 00:53	
EPA 300.0 Rev 2.1 1993	Sulfate	430	mg/L	9.0	02/18/22 00:53	
92587322025	**EB-2**					
EPA 6020B	Barium	0.0024J	mg/L	0.0050	02/25/22 23:07	
EPA 6020B	Boron	0.020J	mg/L	0.040	02/25/22 23:07	
92587322026	**FB-2**					
EPA 6020B	Barium	0.0025J	mg/L	0.0050	02/25/22 23:13	
EPA 6020B	Boron	0.011J	mg/L	0.040	02/25/22 23:13	

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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-4 **Lab ID: 92587322001** Collected: 02/07/22 14:28 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:31		
pH	**5.24**	Std. Units			1		02/09/22 17:31		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**5.9**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 16:56	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 16:31	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 16:31	7440-38-2	
Barium	**0.028**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 16:31	7440-39-3	
Beryllium	**0.00017J**	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 16:31	7440-41-7	
Boron	**0.017J**	mg/L	0.040	0.0086	1	02/25/22 07:37	02/25/22 16:31	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 16:31	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 16:31	7440-47-3	
Cobalt	**0.00068J**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 16:31	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 16:31	7439-92-1	
Lithium	**0.0013J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 16:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 16:31	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 16:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 16:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**54.0**	mg/L	10.0	10.0	1		02/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.4**	mg/L	1.0	0.60	1		02/16/22 09:30	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 09:30	16984-48-8	
Sulfate	**2.9**	mg/L	1.0	0.50	1		02/16/22 09:30	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-5 **Lab ID: 92587322002** Collected: 02/07/22 16:51 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:31		
pH	**6.51**	Std. Units			1		02/09/22 17:31		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**30.0**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 17:01	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 16:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 16:37	7440-38-2	
Barium	**0.038**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 16:37	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 16:37	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	02/25/22 07:37	02/25/22 16:37	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 16:37	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 16:37	7440-47-3	
Cobalt	**0.00055J**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 16:37	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 16:37	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 16:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 16:37	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 16:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 16:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:43	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**135**	mg/L	10.0	10.0	1		02/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1.4**	mg/L	1.0	0.60	1		02/16/22 09:45	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 09:45	16984-48-8	
Sulfate	**20.6**	mg/L	1.0	0.50	1		02/16/22 09:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-6 **Lab ID: 92587322003** Collected: 02/07/22 16:31 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:31		
pH	**7.65**	Std. Units			1		02/09/22 17:31		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**53.4**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 18:53	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0014J**	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 17:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 17:01	7440-38-2	
Barium	**0.18**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 17:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 17:01	7440-41-7	
Boron	**0.019J**	mg/L	0.040	0.0086	1	02/25/22 07:37	02/25/22 17:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 17:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 17:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 17:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 17:01	7439-92-1	
Lithium	**0.0097J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 17:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 17:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 17:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 17:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:46	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**224**	mg/L	10.0	10.0	1		02/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1.1**	mg/L	1.0	0.60	1		02/16/22 10:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 10:00	16984-48-8	
Sulfate	**33.0**	mg/L	1.0	0.50	1		02/16/22 10:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-42D **Lab ID: 92587322004** Collected: 02/07/22 15:57 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:32		
pH	**7.85**	Std. Units			1		02/09/22 17:32		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**48.7**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 17:06	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 17:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 17:07	7440-38-2	
Barium	**0.18**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 17:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 17:07	7440-41-7	
Boron	**0.047**	mg/L	0.040	0.0086	1	02/25/22 07:37	02/25/22 17:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 17:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 17:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 17:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 17:07	7439-92-1	
Lithium	**0.0097J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 17:07	7439-93-2	
Molybdenum	**0.00099J**	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 17:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 17:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 17:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**190**	mg/L	10.0	10.0	1		02/11/22 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.1**	mg/L	1.0	0.60	1		02/16/22 10:15	16887-00-6	
Fluoride	**0.085J**	mg/L	0.10	0.050	1		02/16/22 10:15	16984-48-8	
Sulfate	**10.4**	mg/L	1.0	0.50	1		02/16/22 10:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWC-15 **Lab ID: 92587322005** Collected: 02/08/22 13:49 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:33		
pH	**6.04**	Std. Units			1		02/09/22 17:33		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**186**	mg/L	1.0	0.12	1	02/25/22 07:39	02/28/22 20:54	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0020J**	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 17:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 17:13	7440-38-2	
Barium	**0.0098**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 17:13	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 17:13	7440-41-7	
Boron	**1.9**	mg/L	0.040	0.0086	1	02/25/22 07:37	02/25/22 17:13	7440-42-8	
Cadmium	**0.0011**	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 17:13	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 17:13	7440-47-3	
Cobalt	**0.0081**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 17:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 17:13	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 17:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 17:13	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 17:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 17:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**866**	mg/L	20.0	20.0	1		02/15/22 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**76.6**	mg/L	1.0	0.60	1		02/16/22 10:30	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 10:30	16984-48-8	
Sulfate	**360**	mg/L	7.0	3.5	7		02/16/22 15:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWC-16 **Lab ID: 92587322006** Collected: 02/08/22 12:09 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:33		
pH	**7.18**	Std. Units			1		02/09/22 17:33		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**218**	mg/L	1.0	0.12	1	02/25/22 07:39	02/28/22 21:08	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 18:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:37	7440-38-2	
Barium	**0.10**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 18:37	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 18:37	7440-41-7	
Boron	**2.6**	mg/L	0.40	0.086	10	02/25/22 07:37	02/28/22 18:38	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 18:37	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:37	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 18:37	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 18:37	7439-92-1	
Lithium	**0.0034J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 18:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 18:37	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 18:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 18:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:54	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**852**	mg/L	20.0	20.0	1		02/15/22 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**96.4**	mg/L	1.0	0.60	1		02/16/22 11:15	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 11:15	16984-48-8	
Sulfate	**238**	mg/L	5.0	2.5	5		02/16/22 15:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWC-17 **Lab ID: 92587322007** Collected: 02/08/22 10:33 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:33		
pH	**6.42**	Std. Units			1		02/09/22 17:33		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**280**	mg/L	1.0	0.12	1	02/25/22 07:39	02/28/22 21:13	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 18:44	7440-36-0	
Arsenic	**0.0017J**	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:44	7440-38-2	
Barium	**0.021**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 18:44	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 18:44	7440-41-7	
Boron	**7.8**	mg/L	0.40	0.086	10	02/25/22 07:37	02/28/22 18:44	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 18:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:44	7440-47-3	
Cobalt	**0.0066**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 18:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 18:44	7439-92-1	
Lithium	**0.0014J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 18:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 18:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 18:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 18:44	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:56	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1160**	mg/L	20.0	20.0	1		02/15/22 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**117**	mg/L	8.0	4.8	8		02/16/22 15:30	16887-00-6	
Fluoride	**0.055J**	mg/L	0.10	0.050	1		02/16/22 11:30	16984-48-8	
Sulfate	**364**	mg/L	8.0	4.0	8		02/16/22 15:30	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWC-18 **Lab ID: 92587322008** Collected: 02/08/22 15:40 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:34		
pH	**4.59**	Std. Units			1		02/09/22 17:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**418**	mg/L	10.0	1.2	10	02/25/22 07:39	02/28/22 21:18	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 18:50	7440-36-0	
Arsenic	**0.0050J**	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:50	7440-38-2	
Barium	**0.020**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 18:50	7440-39-3	
Beryllium	**0.0026**	mg/L	0.0025	0.00027	5	02/25/22 07:37	02/28/22 18:50	7440-41-7	
Boron	**8.1**	mg/L	0.20	0.043	5	02/25/22 07:37	02/28/22 18:50	7440-42-8	
Cadmium	**0.00076**	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 18:50	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:50	7440-47-3	
Cobalt	**0.16**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 18:50	7440-48-4	
Lead	**0.00090J**	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 18:50	7439-92-1	
Lithium	**0.010J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 18:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 18:50	7439-98-7	
Selenium	**0.0082**	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 18:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 18:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 12:59	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1770**	mg/L	50.0	50.0	1		02/15/22 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**105**	mg/L	19.0	11.4	19		02/16/22 16:14	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.050	1		02/16/22 12:15	16984-48-8	
Sulfate	**960**	mg/L	19.0	9.5	19		02/16/22 16:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-21D **Lab ID: 92587322009** Collected: 02/08/22 14:30 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:34		
pH	**7.09**	Std. Units			1		02/09/22 17:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**366**	mg/L	10.0	1.2	10	02/25/22 07:39	02/28/22 21:23	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 18:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:56	7440-38-2	
Barium	**0.033**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 18:56	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 18:56	7440-41-7	
Boron	**5.9**	mg/L	0.40	0.086	10	02/25/22 07:37	02/28/22 18:56	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 18:56	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 18:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 18:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 18:56	7439-92-1	
Lithium	**0.022J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 18:56	7439-93-2	
Molybdenum	**0.016**	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 18:56	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 18:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 18:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:01	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1810**	mg/L	100	100	1		02/15/22 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**196**	mg/L	16.0	9.6	16		02/16/22 20:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 12:30	16984-48-8	
Sulfate	**779**	mg/L	16.0	8.0	16		02/16/22 20:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-22 **Lab ID: 92587322010** Collected: 02/08/22 16:59 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:34		
pH	**5.37**	Std. Units			1		02/09/22 17:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**221**	mg/L	1.0	0.12	1	02/25/22 07:39	02/28/22 21:27	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 19:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:02	7440-38-2	
Barium	**0.014**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:02	7440-39-3	
Beryllium	**0.000079J**	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 19:02	7440-41-7	
Boron	**3.2**	mg/L	0.40	0.086	10	02/25/22 07:37	02/28/22 19:29	7440-42-8	
Cadmium	**0.0020**	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:02	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:02	7440-47-3	
Cobalt	**0.034**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:02	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:02	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 19:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:02	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:04	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1070**	mg/L	20.0	20.0	1		02/15/22 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**110**	mg/L	9.0	5.4	9		02/16/22 18:46	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 12:45	16984-48-8	
Sulfate	**449**	mg/L	9.0	4.5	9		02/16/22 18:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-33 **Lab ID: 92587322011** Collected: 02/08/22 16:35 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:34		
pH	**4.42**	Std. Units			1		02/09/22 17:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**548**	mg/L	10.0	1.2	10	02/25/22 10:43	03/02/22 15:05	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 19:08	7440-36-0	
Arsenic	**0.0069**	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:08	7440-38-2	
Barium	**0.020**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:08	7440-39-3	
Beryllium	**0.00087J**	mg/L	0.0025	0.00027	5	02/25/22 07:37	02/28/22 19:35	7440-41-7	D3
Boron	**8.4**	mg/L	0.20	0.043	5	02/25/22 07:37	02/28/22 19:35	7440-42-8	
Cadmium	**0.00013J**	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:08	7440-47-3	
Cobalt	**0.048**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:08	7440-48-4	
Lead	**0.0014**	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:08	7439-92-1	
Lithium	**0.0010J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 19:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:08	7439-98-7	
Selenium	**0.0078**	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:08	7782-49-2	
Thallium	**0.00025J**	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:12	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**2480**	mg/L	100	100	1		02/15/22 16:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**166**	mg/L	24.0	14.4	24		02/16/22 19:01	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		02/16/22 13:00	16984-48-8	
Sulfate	**1220**	mg/L	24.0	12.0	24		02/16/22 19:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-35 **Lab ID: 92587322012** Collected: 02/08/22 12:39 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:35		
pH	**4.86**	Std. Units			1		02/09/22 17:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**519**	mg/L	10.0	1.2	10	02/25/22 10:43	03/02/22 15:20	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0029J**	mg/L	0.0030	0.00078	1	02/25/22 07:37	02/25/22 19:14	7440-36-0	
Arsenic	**0.0072**	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:14	7440-38-2	
Barium	**0.023**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:14	7440-39-3	
Beryllium	**0.00070J**	mg/L	0.0025	0.00027	5	02/25/22 07:37	02/28/22 19:41	7440-41-7	D3
Boron	**10.8**	mg/L	0.20	0.043	5	02/25/22 07:37	02/28/22 19:41	7440-42-8	
Cadmium	**0.0015**	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:14	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:14	7440-47-3	
Cobalt	**0.090**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:14	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:14	7439-92-1	
Lithium	**0.0039J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 19:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:14	7439-98-7	
Selenium	**0.0083**	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	**0.00014J**	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:15	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**2410**	mg/L	100	100	1		02/15/22 16:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**202**	mg/L	23.0	13.8	23		02/16/22 19:16	16887-00-6	
Fluoride	**0.065J**	mg/L	0.10	0.050	1		02/16/22 13:15	16984-48-8	
Sulfate	**1190**	mg/L	23.0	11.5	23		02/16/22 19:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-37D **Lab ID: 92587322013** Collected: 02/08/22 12:14 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:35		
pH	**7.63**	Std. Units			1		02/09/22 17:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**167**	mg/L	1.0	0.12	1	02/25/22 10:43	03/01/22 00:54	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 20:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 20:49	7440-38-2	
Barium	**0.11**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 20:49	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 20:49	7440-41-7	
Boron	**0.14**	mg/L	0.040	0.0086	1	02/25/22 10:38	02/28/22 16:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 20:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 20:49	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 20:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 20:49	7439-92-1	
Lithium	**0.029J**	mg/L	0.030	0.00073	1	02/25/22 10:38	02/28/22 16:55	7439-93-2	
Molybdenum	**0.0070J**	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 20:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 20:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 20:49	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**882**	mg/L	20.0	20.0	1		02/15/22 16:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**151**	mg/L	5.0	3.0	5		02/16/22 19:30	16887-00-6	
Fluoride	**0.055J**	mg/L	0.10	0.050	1		02/16/22 13:30	16984-48-8	
Sulfate	**248**	mg/L	5.0	2.5	5		02/16/22 19:30	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-51 **Lab ID: 92587322014** Collected: 02/08/22 14:10 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:35		
pH	**6.57**	Std. Units			1		02/09/22 17:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**537**	mg/L	10.0	1.2	10	02/25/22 10:43	03/02/22 15:25	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 20:55	7440-36-0	
Arsenic	**0.0046J**	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 20:55	7440-38-2	
Barium	**0.046**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 20:55	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 20:55	7440-41-7	
Boron	**10.5**	mg/L	2.0	0.43	50	02/25/22 10:38	02/28/22 17:01	7440-42-8	M1
Cadmium	**0.00024J**	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 20:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 20:55	7440-47-3	
Cobalt	**0.031**	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 20:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 20:55	7439-92-1	
Lithium	**0.0010J**	mg/L	0.030	0.00073	1	02/25/22 10:38	02/25/22 20:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 20:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 20:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 20:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:20	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**2430**	mg/L	100	100	1		02/15/22 16:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**194**	mg/L	15.0	9.0	15		02/19/22 17:18	16887-00-6	
Fluoride	**0.078J**	mg/L	0.10	0.050	1		02/18/22 23:56	16984-48-8	
Sulfate	**1150**	mg/L	15.0	7.5	15		02/19/22 17:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: DUP-2 **Lab ID: 92587322015** Collected: 02/08/22 00:00 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**188**	mg/L	1.0	0.12	1	02/25/22 10:43	03/01/22 01:18	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0017J**	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 21:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 21:19	7440-38-2	
Barium	**0.013**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 21:19	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 21:19	7440-41-7	
Boron	**2.0**	mg/L	0.40	0.086	10	02/25/22 10:38	02/28/22 17:18	7440-42-8	
Cadmium	**0.0013**	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 21:19	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 21:19	7440-47-3	
Cobalt	**0.013**	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 21:19	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 21:19	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00073	1	02/25/22 10:38	02/25/22 21:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 21:19	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 21:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 21:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**894**	mg/L	20.0	20.0	1		02/15/22 16:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**74.7**	mg/L	1.0	0.60	1		02/16/22 14:15	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 14:15	16984-48-8	
Sulfate	**361**	mg/L	7.0	3.5	7		02/16/22 19:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-44D **Lab ID: 92587322017** Collected: 02/01/22 13:35 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:36		
pH	**8.25**	Std. Units			1		02/09/22 17:36		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**24.8**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 16:48	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0013J**	mg/L	0.0030	0.00078	1	02/17/22 09:52	02/18/22 17:43	7440-36-0	
Arsenic	**0.0025J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:43	7440-38-2	
Barium	**0.23**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 17:43	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 17:43	7440-41-7	
Boron	**0.44**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 17:43	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 17:43	7440-43-9	
Chromium	**0.0013J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:43	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 17:43	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 17:43	7439-92-1	
Lithium	**0.048**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 17:43	7439-93-2	
Molybdenum	**0.0055J**	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 17:43	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 17:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 17:43	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/15/22 08:00	02/15/22 13:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**444**	mg/L	10.0	10.0	1		02/07/22 16:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**44.8**	mg/L	1.0	0.60	1		02/08/22 12:23	16887-00-6	
Fluoride	**0.96**	mg/L	0.10	0.050	1		02/08/22 12:23	16984-48-8	
Sulfate	**56.3**	mg/L	1.0	0.50	1		02/08/22 12:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-2 **Lab ID: 92587322018** Collected: 02/01/22 11:52 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:36		
pH	**5.24**	Std. Units			1		02/09/22 17:36		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**27.2**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 16:53	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/17/22 09:52	02/18/22 17:49	7440-36-0	
Arsenic	**0.0023J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:49	7440-38-2	
Barium	**0.13**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 17:49	7440-39-3	
Beryllium	**0.00020J**	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 17:49	7440-41-7	
Boron	**0.056**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 17:49	7440-42-8	
Cadmium	**0.00017J**	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 17:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:49	7440-47-3	
Cobalt	**0.025**	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 17:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 17:49	7439-92-1	
Lithium	**0.0017J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 17:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 17:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 17:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 17:49	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/15/22 08:00	02/15/22 13:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**156**	mg/L	10.0	10.0	1		02/07/22 16:43		
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		02/08/22 13:36	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/08/22 13:36	16984-48-8	
Sulfate	**67.1**	mg/L	1.0	0.50	1		02/08/22 13:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-3 **Lab ID: 92587322019** Collected: 02/01/22 09:58 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:36		
pH	**7.45**	Std. Units			1		02/09/22 17:36		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**85.1**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 16:58	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/17/22 09:52	02/18/22 17:55	7440-36-0	
Arsenic	**0.0024J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:55	7440-38-2	
Barium	**0.12**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 17:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 17:55	7440-41-7	
Boron	**0.011J**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 17:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 17:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 17:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 17:55	7439-92-1	
Lithium	**0.0037J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 17:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 17:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 17:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 17:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/15/22 15:15	02/16/22 10:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**350**	mg/L	10.0	10.0	1		02/07/22 16:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.7**	mg/L	1.0	0.60	1		02/08/22 13:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/08/22 13:50	16984-48-8	
Sulfate	**46.0**	mg/L	1.0	0.50	1		02/08/22 13:50	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-1 **Lab ID: 92587322020** Collected: 02/01/22 12:13 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:36		
pH	**7.19**	Std. Units			1		02/09/22 17:36		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**106**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 17:02	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/17/22 09:52	02/18/22 18:01	7440-36-0	
Arsenic	**0.0016J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:01	7440-38-2	
Barium	**0.031**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 18:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 18:01	7440-41-7	
Boron	**0.016J**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 18:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 18:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 18:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 18:01	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 18:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 18:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 18:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 18:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/15/22 15:15	02/16/22 11:04	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**270**	mg/L	10.0	10.0	1		02/07/22 16:44		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**7.5**	mg/L	1.0	0.60	1		02/08/22 14:03	16887-00-6	
Fluoride	**0.064J**	mg/L	0.10	0.050	1		02/08/22 14:03	16984-48-8	
Sulfate	**43.7**	mg/L	1.0	0.50	1		02/08/22 14:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWA-43D **Lab ID: 92587322021** Collected: 02/01/22 10:28 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:37		
pH	**7.52**	Std. Units			1		02/09/22 17:37		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**55.9**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 17:07	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/17/22 09:52	02/18/22 18:07	7440-36-0	
Arsenic	**0.0036J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:07	7440-38-2	
Barium	**0.29**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 18:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 18:07	7440-41-7	
Boron	**0.050**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 18:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 18:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 18:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 18:07	7439-92-1	
Lithium	**0.0024J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 18:07	7439-93-2	
Molybdenum	**0.0036J**	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 18:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 18:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 18:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/15/22 15:15	02/16/22 11:06	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**156**	mg/L	10.0	10.0	1		02/07/22 16:44		
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		02/08/22 14:17	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.050	1		02/08/22 14:17	16984-48-8	
Sulfate	**37.5**	mg/L	1.0	0.50	1		02/08/22 14:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: HGWC-14 **Lab ID: 92587322022** Collected: 02/09/22 15:23 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 15:57		
pH	**4.97**	Std. Units			1		02/11/22 15:57		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**571**	mg/L	10.0	1.2	10	02/25/22 10:43	03/02/22 15:30	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 22:37	7440-36-0	
Arsenic	**0.0077**	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 22:37	7440-38-2	
Barium	**0.017**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 22:37	7440-39-3	
Beryllium	**0.00056**	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 22:37	7440-41-7	
Boron	**9.9**	mg/L	2.0	0.43	50	02/25/22 10:38	02/28/22 18:20	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 22:37	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 22:37	7440-47-3	
Cobalt	**0.038**	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 22:37	7440-48-4	
Lead	**0.0014**	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 22:37	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/25/22 10:38	02/25/22 22:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 22:37	7439-98-7	
Selenium	**0.0047J**	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 22:37	7782-49-2	
Thallium	**0.00025J**	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 22:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**2310**	mg/L	100	100	1		02/16/22 13:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**174**	mg/L	24.0	14.4	24		02/18/22 00:24	16887-00-6	
Fluoride	**0.053J**	mg/L	0.10	0.050	1		02/17/22 13:11	16984-48-8	
Sulfate	**1190**	mg/L	24.0	12.0	24		02/18/22 00:24	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-34D **Lab ID: 92587322023** Collected: 02/09/22 13:50 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 15:57		
pH	**7.21**	Std. Units			1		02/11/22 15:57		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**557**	mg/L	10.0	1.2	10	02/25/22 10:43	03/02/22 15:35	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 22:43	7440-36-0	
Arsenic	**0.0054**	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 22:43	7440-38-2	
Barium	**0.040**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 22:43	7440-39-3	
Beryllium	**0.000065J**	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 22:43	7440-41-7	
Boron	**9.6**	mg/L	2.0	0.43	50	02/25/22 10:38	02/28/22 18:26	7440-42-8	
Cadmium	**0.00072**	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 22:43	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 22:43	7440-47-3	
Cobalt	**0.0065**	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 22:43	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 22:43	7439-92-1	
Lithium	**0.0022J**	mg/L	0.030	0.00073	1	02/25/22 10:38	02/25/22 22:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 22:43	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 22:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 22:43	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**2260**	mg/L	100	100	1		02/16/22 13:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**251**	mg/L	21.0	12.6	21		02/18/22 00:38	16887-00-6	
Fluoride	**0.051J**	mg/L	0.10	0.050	1		02/17/22 13:26	16984-48-8	
Sulfate	**1050**	mg/L	21.0	10.5	21		02/18/22 00:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: MW-23D **Lab ID: 92587322024** Collected: 02/10/22 09:49 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 15:57		
pH	**6.87**	Std. Units			1		02/11/22 15:57		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**288**	mg/L	10.0	1.2	10	02/25/22 10:43	03/02/22 15:39	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 23:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 23:01	7440-38-2	
Barium	**0.050**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 23:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 23:01	7440-41-7	
Boron	**3.2**	mg/L	0.40	0.086	10	02/25/22 10:38	02/28/22 18:32	7440-42-8	
Cadmium	**0.00024J**	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 23:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 23:01	7440-47-3	
Cobalt	**0.0010J**	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 23:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 23:01	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.00073	1	02/25/22 10:38	02/25/22 23:01	7439-93-2	
Molybdenum	**0.0034J**	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 23:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 23:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 23:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1260**	mg/L	50.0	50.0	1		02/16/22 14:18		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**138**	mg/L	9.0	5.4	9		02/18/22 00:53	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/17/22 13:41	16984-48-8	
Sulfate	**430**	mg/L	9.0	4.5	9		02/18/22 00:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: EB-2 **Lab ID: 92587322025** Collected: 02/10/22 10:25 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	02/25/22 10:43	03/01/22 02:25	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 23:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 23:07	7440-38-2	
Barium	**0.0024J**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 23:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 23:07	7440-41-7	
Boron	**0.020J**	mg/L	0.040	0.0086	1	02/25/22 10:38	02/25/22 23:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 23:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 23:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 23:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 23:07	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/25/22 10:38	02/25/22 23:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 23:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 23:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 23:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/16/22 14:18		
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		02/17/22 13:56	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/17/22 13:56	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/17/22 13:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-2
Pace Project No.: 92587322

Sample: FB-2 **Lab ID: 92587322026** Collected: 02/10/22 10:30 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	02/25/22 10:43	03/01/22 02:30	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/25/22 10:38	02/25/22 23:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 23:13	7440-38-2	
Barium	**0.0025J**	mg/L	0.0050	0.00067	1	02/25/22 10:38	02/25/22 23:13	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 10:38	02/25/22 23:13	7440-41-7	
Boron	**0.011J**	mg/L	0.040	0.0086	1	02/25/22 10:38	02/25/22 23:13	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 10:38	02/25/22 23:13	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 10:38	02/25/22 23:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 10:38	02/25/22 23:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 10:38	02/25/22 23:13	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/25/22 10:38	02/25/22 23:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 10:38	02/25/22 23:13	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 10:38	02/25/22 23:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 10:38	02/25/22 23:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/25/22 08:00	02/25/22 13:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/16/22 14:18		
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		02/17/22 14:11	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/17/22 14:11	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/17/22 14:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678931 — Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A — Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

METHOD BLANK: 3552812 — Matrix: Water
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/17/22 15:21	

LABORATORY CONTROL SAMPLE: 3552813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.99J	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552814 3552815

Parameter	Units	92586342002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	51.3	1	1	53.1	51.0	177	-37	75-125	4	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 680760
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010

METHOD BLANK: 3561423 Matrix: Water
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/25/22 16:35	

LABORATORY CONTROL SAMPLE: 3561424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3561425 3561426

Parameter	Units	92587322003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	53.4	1	1	57.1	57.3	367	381	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 680899
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322011, 92587322012, 92587322013, 92587322014, 92587322015, 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

METHOD BLANK: 3562225 Matrix: Water
Associated Lab Samples: 92587322011, 92587322012, 92587322013, 92587322014, 92587322015, 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	03/01/22 00:25	

LABORATORY CONTROL SAMPLE: 3562226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3562227 3562228

Parameter	Units	92587322013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	167	1	1	164	165	-228	-156	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678928
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

METHOD BLANK: 3552808 Matrix: Water
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/17/22 21:50	
Arsenic	mg/L	ND	0.0050	0.0011	02/17/22 21:50	
Barium	mg/L	ND	0.0050	0.00067	02/17/22 21:50	
Beryllium	mg/L	ND	0.00050	0.000054	02/17/22 21:50	
Boron	mg/L	ND	0.040	0.0086	02/17/22 21:50	
Cadmium	mg/L	ND	0.00050	0.00011	02/17/22 21:50	
Chromium	mg/L	ND	0.0050	0.0011	02/17/22 21:50	
Cobalt	mg/L	ND	0.0050	0.00039	02/17/22 21:50	
Lead	mg/L	ND	0.0010	0.00089	02/17/22 21:50	
Lithium	mg/L	ND	0.030	0.00073	02/18/22 16:01	
Molybdenum	mg/L	ND	0.010	0.00074	02/17/22 21:50	
Selenium	mg/L	ND	0.0050	0.0014	02/17/22 21:50	
Thallium	mg/L	ND	0.0010	0.00018	02/17/22 21:50	

LABORATORY CONTROL SAMPLE: 3552809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	119	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.11	107	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.11	106	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.11	109	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552810 3552811

Parameter	Units	92586342001 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	0.12	0.13	122	125	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552810 3552811

Parameter	Units	92586342001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.035	0.1	0.1	0.14	0.14	108	107	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.091	0.091	91	91	75-125	0	20	
Boron	mg/L	0.17	1	1	1.1	1.1	90	89	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.11	108	109	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	104	106	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.11	0.11	108	108	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.11	102	106	75-125	4	20	
Molybdenum	mg/L	0.0020J	0.1	0.1	0.12	0.12	116	116	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.11	0.11	111	110	75-125	0	20	
Thallium	mg/L	ND	0.1	0.1	0.11	0.11	109	109	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 680757
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012

METHOD BLANK: 3561407 Matrix: Water
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/25/22 16:19	
Arsenic	mg/L	ND	0.0050	0.0011	02/25/22 16:19	
Barium	mg/L	ND	0.0050	0.00067	02/25/22 16:19	
Beryllium	mg/L	ND	0.00050	0.000054	02/25/22 16:19	
Boron	mg/L	ND	0.040	0.0086	02/25/22 16:19	
Cadmium	mg/L	ND	0.00050	0.00011	02/25/22 16:19	
Chromium	mg/L	ND	0.0050	0.0011	02/25/22 16:19	
Cobalt	mg/L	ND	0.0050	0.00039	02/25/22 16:19	
Lead	mg/L	ND	0.0010	0.00089	02/25/22 16:19	
Lithium	mg/L	ND	0.030	0.00073	02/25/22 16:19	
Molybdenum	mg/L	ND	0.010	0.00074	02/25/22 16:19	
Selenium	mg/L	ND	0.0050	0.0014	02/25/22 16:19	
Thallium	mg/L	ND	0.0010	0.00018	02/25/22 16:19	

LABORATORY CONTROL SAMPLE: 3561408

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.095	95	80-120	
Arsenic	mg/L	0.1	0.091	91	80-120	
Barium	mg/L	0.1	0.087	87	80-120	
Beryllium	mg/L	0.1	0.091	91	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.091	91	80-120	
Chromium	mg/L	0.1	0.091	91	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.088	88	80-120	
Lithium	mg/L	0.1	0.090	90	80-120	
Molybdenum	mg/L	0.1	0.094	94	80-120	
Selenium	mg/L	0.1	0.090	90	80-120	
Thallium	mg/L	0.1	0.088	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3561409 3561410

Parameter	Units	92587322002 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	0.091	102	91	75-125	12	20	

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REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3561409 3561410

Parameter	Units	92587322002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.098	0.090	98	90	75-125	8	20	
Barium	mg/L	0.038	0.1	0.1	0.14	0.13	105	89	75-125	12	20	
Beryllium	mg/L	ND	0.1	0.1	0.094	0.087	94	87	75-125	8	20	
Boron	mg/L	ND	1	1	0.94	0.92	94	91	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.089	97	89	75-125	9	20	
Chromium	mg/L	ND	0.1	0.1	0.098	0.090	97	89	75-125	8	20	
Cobalt	mg/L	0.00055J	0.1	0.1	0.093	0.088	92	88	75-125	5	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.083	95	83	75-125	14	20	
Lithium	mg/L	0.0029J	0.1	0.1	0.097	0.088	94	85	75-125	10	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.088	97	88	75-125	10	20	
Selenium	mg/L	ND	0.1	0.1	0.096	0.089	96	89	75-125	8	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.084	93	84	75-125	10	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 680871
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322013, 92587322014, 92587322015, 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

METHOD BLANK: 3562117 Matrix: Water
Associated Lab Samples: 92587322013, 92587322014, 92587322015, 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/25/22 20:37	
Arsenic	mg/L	ND	0.0050	0.0011	02/25/22 20:37	
Barium	mg/L	ND	0.0050	0.00067	02/25/22 20:37	
Beryllium	mg/L	ND	0.00050	0.000054	02/25/22 20:37	
Boron	mg/L	ND	0.040	0.0086	02/25/22 20:37	
Cadmium	mg/L	ND	0.00050	0.00011	02/25/22 20:37	
Chromium	mg/L	ND	0.0050	0.0011	02/25/22 20:37	
Cobalt	mg/L	ND	0.0050	0.00039	02/25/22 20:37	
Lead	mg/L	ND	0.0010	0.00089	02/25/22 20:37	
Lithium	mg/L	ND	0.030	0.00073	02/25/22 20:37	
Molybdenum	mg/L	ND	0.010	0.00074	02/25/22 20:37	
Selenium	mg/L	ND	0.0050	0.0014	02/25/22 20:37	
Thallium	mg/L	ND	0.0010	0.00018	02/25/22 20:37	

LABORATORY CONTROL SAMPLE: 3562118

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	0.098	98	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.1	112	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	0.096	96	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.11	115	80-120	
Molybdenum	mg/L	0.1	0.094	94	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3562119 3562120

Parameter	Units	92587322014 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	0.11	104	106	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3562119 3562120

Parameter	Units	92587322014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0046J	0.1	0.1	0.11	0.12	106	110	75-125	4	20	
Barium	mg/L	0.046	0.1	0.1	0.15	0.15	105	109	75-125	3	20	
Beryllium	mg/L	0.00011J	0.1	0.1	0.10	0.10	100	104	75-125	4	20	
Boron	mg/L	10.5	1	1	11.0	11.5	50	104	75-125	5	20	M1
Cadmium	mg/L	0.00024J	0.1	0.1	0.094	0.099	94	99	75-125	5	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.11	99	106	75-125	7	20	
Cobalt	mg/L	0.031	0.1	0.1	0.12	0.13	93	99	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.085	0.087	85	87	75-125	3	20	
Lithium	mg/L	0.0010J	0.1	0.1	0.11	0.11	108	112	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.099	95	98	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.11	0.11	104	108	75-125	4	20	
Thallium	mg/L	ND	0.1	0.1	0.087	0.090	87	90	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678094
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322017, 92587322018

METHOD BLANK: 3548852 Matrix: Water
Associated Lab Samples: 92587322017, 92587322018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/15/22 12:00	

LABORATORY CONTROL SAMPLE: 3548853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3548854 3548855

Parameter	Units	92585561007 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	0.0024	96	95	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678396
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322019, 92587322020, 92587322021

METHOD BLANK: 3550157 Matrix: Water
Associated Lab Samples: 92587322019, 92587322020, 92587322021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/16/22 10:48	

LABORATORY CONTROL SAMPLE: 3550158

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: 3550159 3550160

Parameter	Units	92586342010 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	0.0021	0.0023	85	92	75-125	8	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 680662
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012, 92587322013, 92587322014, 92587322015, 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

METHOD BLANK: 3560817
Matrix: Water
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012, 92587322013, 92587322014, 92587322015, 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/25/22 12:21	

LABORATORY CONTROL SAMPLE: 3560818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560819 3560820

Parameter	Units	92587322001 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	0.0023	0.0024	93	94	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 677215
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

METHOD BLANK: 3544557 Matrix: Water
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/07/22 16:40	

LABORATORY CONTROL SAMPLE: 3544558

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	375	94	80-120	

SAMPLE DUPLICATE: 3544559

Parameter	Units	92587319003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	156	171	9	25	H3

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 677216 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004

METHOD BLANK: 3544560 Matrix: Water
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/11/22 11:39	

LABORATORY CONTROL SAMPLE: 3544561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	381	95	80-120	

SAMPLE DUPLICATE: 3544562

Parameter	Units	92586436027 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	162	168	4	25	

SAMPLE DUPLICATE: 3544563

Parameter	Units	92586613016 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	161	155	4	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678369
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012, 92587322013, 92587322014, 92587322015

METHOD BLANK: 3550014 Matrix: Water
Associated Lab Samples: 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012, 92587322013, 92587322014, 92587322015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/15/22 16:02	

LABORATORY CONTROL SAMPLE: 3550015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	389	97	80-120	

SAMPLE DUPLICATE: 3550016

Parameter	Units	92587091003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	151	152	1	25	

SAMPLE DUPLICATE: 3550017

Parameter	Units	92587322007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1160	1080	7	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678705
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322022, 92587322023

METHOD BLANK: 3551645 Matrix: Water
Associated Lab Samples: 92587322022, 92587322023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/16/22 13:52	

LABORATORY CONTROL SAMPLE: 3551646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	377	94	80-120	

SAMPLE DUPLICATE: 3551647

Parameter	Units	92587096008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		25	

SAMPLE DUPLICATE: 3551648

Parameter	Units	92587319007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	756	708	7	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678707 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587322024, 92587322025, 92587322026

METHOD BLANK: 3551650 Matrix: Water
Associated Lab Samples: 92587322024, 92587322025, 92587322026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/16/22 14:16	

LABORATORY CONTROL SAMPLE: 3551651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	376	94	80-120	

SAMPLE DUPLICATE: 3551652

Parameter	Units	92587881001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	229	228	0	25	

SAMPLE DUPLICATE: 3551653

Parameter	Units	92587855001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	94.0	95.0	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 676561
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

METHOD BLANK: 3541395 Matrix: Water
Associated Lab Samples: 92587322017, 92587322018, 92587322019, 92587322020, 92587322021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/08/22 06:35	
Fluoride	mg/L	ND	0.10	0.050	02/08/22 06:35	
Sulfate	mg/L	ND	1.0	0.50	02/08/22 06:35	

LABORATORY CONTROL SAMPLE: 3541396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.6	103	90-110	
Fluoride	mg/L	2.5	2.4	95	90-110	
Sulfate	mg/L	50	50.8	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3541397 3541398

Parameter	Units	92585561005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.1	50	50	56.9	57.4	105	106	90-110	1	10	
Fluoride	mg/L	0.086J	2.5	2.5	2.5	2.6	98	99	90-110	2	10	
Sulfate	mg/L	25.5	50	50	77.5	78.0	104	105	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3541399 3541400

Parameter	Units	92586342003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.5	50	50	55.3	55.0	106	105	90-110	1	10	
Fluoride	mg/L	0.36	2.5	2.5	2.9	2.9	100	100	90-110	0	10	
Sulfate	mg/L	201	50	50	246	243	91	84	90-110	1	10	M1

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678309
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012, 92587322013, 92587322015

METHOD BLANK: 3549772 Matrix: Water
Associated Lab Samples: 92587322001, 92587322002, 92587322003, 92587322004, 92587322005, 92587322006, 92587322007, 92587322008, 92587322009, 92587322010, 92587322011, 92587322012, 92587322013, 92587322015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/16/22 07:00	
Fluoride	mg/L	ND	0.10	0.050	02/16/22 07:00	
Sulfate	mg/L	ND	1.0	0.50	02/16/22 07:00	

LABORATORY CONTROL SAMPLE: 3549773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.2	98	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	48.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3549774 3549775

Parameter	Units	92586613018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.70J	50	50	51.9	51.3	102	101	90-110	1	10	
Fluoride	mg/L	0.082J	2.5	2.5	2.7	2.6	104	103	90-110	1	10	
Sulfate	mg/L	13.0	50	50	64.4	63.7	103	102	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3549776 3549777

Parameter	Units	92587322007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	117	50	50	163	162	92	90	90-110	1	10	
Fluoride	mg/L	0.055J	2.5	2.5	2.7	2.7	106	104	90-110	1	10	
Sulfate	mg/L	364	50	50	407	406	87	84	90-110	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 678880
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

METHOD BLANK: 3552686 Matrix: Water
Associated Lab Samples: 92587322022, 92587322023, 92587322024, 92587322025, 92587322026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/17/22 11:56	
Fluoride	mg/L	ND	0.10	0.050	02/17/22 11:56	
Sulfate	mg/L	ND	1.0	0.50	02/17/22 11:56	

LABORATORY CONTROL SAMPLE: 3552687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.6	97	90-110	
Fluoride	mg/L	2.5	2.4	95	90-110	
Sulfate	mg/L	50	47.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552688 3552689

Parameter	Units	92586225004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.5	50	50	63.1	63.2	101	101	90-110	0	10	
Fluoride	mg/L	0.15	2.5	2.5	2.7	2.7	102	104	90-110	1	10	
Sulfate	mg/L	967	50	50	1000	1000	73	76	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552690 3552691

Parameter	Units	92587319007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	84.4	50	50	125	125	81	82	90-110	0	10	M1
Fluoride	mg/L	0.10	2.5	2.5	2.7	2.7	103	105	90-110	2	10	
Sulfate	mg/L	224	50	50	270	270	94	93	90-110	0	10	

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QUALITY CONTROL DATA

Project: HAMMOND AP-2
Pace Project No.: 92587322

QC Batch: 679328
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587322014

METHOD BLANK: 3554532 Matrix: Water
Associated Lab Samples: 92587322014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/18/22 20:56	
Fluoride	mg/L	ND	0.10	0.050	02/18/22 20:56	
Sulfate	mg/L	ND	1.0	0.50	02/18/22 20:56	

LABORATORY CONTROL SAMPLE: 3554533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	48.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554534 3554535

Parameter	Units	92588782001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.2	50	50	54.3	55.2	100	102	90-110	2	10	
Fluoride	mg/L	0.14	2.5	2.5	2.6	2.7	99	102	90-110	2	10	
Sulfate	mg/L	3.1	50	50	53.1	54.1	100	102	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3554536 3554537

Parameter	Units	92587881007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.9	50	50	59.0	59.3	100	101	90-110	0	10	
Fluoride	mg/L	0.071J	2.5	2.5	2.6	2.6	100	101	90-110	1	10	
Sulfate	mg/L	70.0	50	50	113	113	87	87	90-110	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALIFIERS

Project: HAMMOND AP-2
Pace Project No.: 92587322

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
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: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587322001	HGWA-4				
92587322002	HGWA-5				
92587322003	HGWA-6				
92587322004	HGWA-42D				
92587322005	HGWC-15				
92587322006	HGWC-16				
92587322007	HGWC-17				
92587322008	HGWC-18				
92587322009	MW-21D				
92587322010	MW-22				
92587322011	MW-33				
92587322012	MW-35				
92587322013	MW-37D				
92587322014	MW-51				
92587322017	HGWA-44D				
92587322018	HGWA-2				
92587322019	HGWA-3				
92587322020	HGWA-1				
92587322021	HGWA-43D				
92587322022	HGWC-14				
92587322023	MW-34D				
92587322024	MW-23D				
92587322001	HGWA-4	EPA 3010A	680760	EPA 6010D	680944
92587322002	HGWA-5	EPA 3010A	680760	EPA 6010D	680944
92587322003	HGWA-6	EPA 3010A	680760	EPA 6010D	680944
92587322004	HGWA-42D	EPA 3010A	680760	EPA 6010D	680944
92587322005	HGWC-15	EPA 3010A	680760	EPA 6010D	680944
92587322006	HGWC-16	EPA 3010A	680760	EPA 6010D	680944
92587322007	HGWC-17	EPA 3010A	680760	EPA 6010D	680944
92587322008	HGWC-18	EPA 3010A	680760	EPA 6010D	680944
92587322009	MW-21D	EPA 3010A	680760	EPA 6010D	680944
92587322010	MW-22	EPA 3010A	680760	EPA 6010D	680944
92587322011	MW-33	EPA 3010A	680899	EPA 6010D	681055
92587322012	MW-35	EPA 3010A	680899	EPA 6010D	681055
92587322013	MW-37D	EPA 3010A	680899	EPA 6010D	681055
92587322014	MW-51	EPA 3010A	680899	EPA 6010D	681055
92587322015	DUP-2	EPA 3010A	680899	EPA 6010D	681055
92587322017	HGWA-44D	EPA 3010A	678931	EPA 6010D	679039
92587322018	HGWA-2	EPA 3010A	678931	EPA 6010D	679039
92587322019	HGWA-3	EPA 3010A	678931	EPA 6010D	679039
92587322020	HGWA-1	EPA 3010A	678931	EPA 6010D	679039
92587322021	HGWA-43D	EPA 3010A	678931	EPA 6010D	679039
92587322022	HGWC-14	EPA 3010A	680899	EPA 6010D	681055
92587322023	MW-34D	EPA 3010A	680899	EPA 6010D	681055
92587322024	MW-23D	EPA 3010A	680899	EPA 6010D	681055
92587322025	EB-2	EPA 3010A	680899	EPA 6010D	681055
92587322026	FB-2	EPA 3010A	680899	EPA 6010D	681055

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587322001	HGWA-4	EPA 3005A	680757	EPA 6020B	680941
92587322002	HGWA-5	EPA 3005A	680757	EPA 6020B	680941
92587322003	HGWA-6	EPA 3005A	680757	EPA 6020B	680941
92587322004	HGWA-42D	EPA 3005A	680757	EPA 6020B	680941
92587322005	HGWC-15	EPA 3005A	680757	EPA 6020B	680941
92587322006	HGWC-16	EPA 3005A	680757	EPA 6020B	680941
92587322007	HGWC-17	EPA 3005A	680757	EPA 6020B	680941
92587322008	HGWC-18	EPA 3005A	680757	EPA 6020B	680941
92587322009	MW-21D	EPA 3005A	680757	EPA 6020B	680941
92587322010	MW-22	EPA 3005A	680757	EPA 6020B	680941
92587322011	MW-33	EPA 3005A	680757	EPA 6020B	680941
92587322012	MW-35	EPA 3005A	680757	EPA 6020B	680941
92587322013	MW-37D	EPA 3005A	680871	EPA 6020B	681052
92587322014	MW-51	EPA 3005A	680871	EPA 6020B	681052
92587322015	DUP-2	EPA 3005A	680871	EPA 6020B	681052
92587322017	HGWA-44D	EPA 3005A	678928	EPA 6020B	679033
92587322018	HGWA-2	EPA 3005A	678928	EPA 6020B	679033
92587322019	HGWA-3	EPA 3005A	678928	EPA 6020B	679033
92587322020	HGWA-1	EPA 3005A	678928	EPA 6020B	679033
92587322021	HGWA-43D	EPA 3005A	678928	EPA 6020B	679033
92587322022	HGWC-14	EPA 3005A	680871	EPA 6020B	681052
92587322023	MW-34D	EPA 3005A	680871	EPA 6020B	681052
92587322024	MW-23D	EPA 3005A	680871	EPA 6020B	681052
92587322025	EB-2	EPA 3005A	680871	EPA 6020B	681052
92587322026	FB-2	EPA 3005A	680871	EPA 6020B	681052
92587322001	HGWA-4	EPA 7470A	680662	EPA 7470A	680886
92587322002	HGWA-5	EPA 7470A	680662	EPA 7470A	680886
92587322003	HGWA-6	EPA 7470A	680662	EPA 7470A	680886
92587322004	HGWA-42D	EPA 7470A	680662	EPA 7470A	680886
92587322005	HGWC-15	EPA 7470A	680662	EPA 7470A	680886
92587322006	HGWC-16	EPA 7470A	680662	EPA 7470A	680886
92587322007	HGWC-17	EPA 7470A	680662	EPA 7470A	680886
92587322008	HGWC-18	EPA 7470A	680662	EPA 7470A	680886
92587322009	MW-21D	EPA 7470A	680662	EPA 7470A	680886
92587322010	MW-22	EPA 7470A	680662	EPA 7470A	680886
92587322011	MW-33	EPA 7470A	680662	EPA 7470A	680886
92587322012	MW-35	EPA 7470A	680662	EPA 7470A	680886
92587322013	MW-37D	EPA 7470A	680662	EPA 7470A	680886
92587322014	MW-51	EPA 7470A	680662	EPA 7470A	680886
92587322015	DUP-2	EPA 7470A	680662	EPA 7470A	680886
92587322017	HGWA-44D	EPA 7470A	678094	EPA 7470A	678301
92587322018	HGWA-2	EPA 7470A	678094	EPA 7470A	678301
92587322019	HGWA-3	EPA 7470A	678396	EPA 7470A	678613
92587322020	HGWA-1	EPA 7470A	678396	EPA 7470A	678613
92587322021	HGWA-43D	EPA 7470A	678396	EPA 7470A	678613

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587322022	**HGWC-14**	EPA 7470A	680662	EPA 7470A	680886
92587322023	**MW-34D**	EPA 7470A	680662	EPA 7470A	680886
92587322024	**MW-23D**	EPA 7470A	680662	EPA 7470A	680886
92587322025	**EB-2**	EPA 7470A	680662	EPA 7470A	680886
92587322026	**FB-2**	EPA 7470A	680662	EPA 7470A	680886
92587322001	**HGWA-4**	SM 2540C-2015	677216		
92587322002	**HGWA-5**	SM 2540C-2015	677216		
92587322003	**HGWA-6**	SM 2540C-2015	677216		
92587322004	**HGWA-42D**	SM 2540C-2015	677216		
92587322005	**HGWC-15**	SM 2540C-2015	678369		
92587322006	**HGWC-16**	SM 2540C-2015	678369		
92587322007	**HGWC-17**	SM 2540C-2015	678369		
92587322008	**HGWC-18**	SM 2540C-2015	678369		
92587322009	**MW-21D**	SM 2540C-2015	678369		
92587322010	**MW-22**	SM 2540C-2015	678369		
92587322011	**MW-33**	SM 2540C-2015	678369		
92587322012	**MW-35**	SM 2540C-2015	678369		
92587322013	**MW-37D**	SM 2540C-2015	678369		
92587322014	**MW-51**	SM 2540C-2015	678369		
92587322015	**DUP-2**	SM 2540C-2015	678369		
92587322017	**HGWA-44D**	SM 2540C-2015	677215		
92587322018	**HGWA-2**	SM 2540C-2015	677215		
92587322019	**HGWA-3**	SM 2540C-2015	677215		
92587322020	**HGWA-1**	SM 2540C-2015	677215		
92587322021	**HGWA-43D**	SM 2540C-2015	677215		
92587322022	**HGWC-14**	SM 2540C-2015	678705		
92587322023	**MW-34D**	SM 2540C-2015	678705		
92587322024	**MW-23D**	SM 2540C-2015	678707		
92587322025	**EB-2**	SM 2540C-2015	678707		
92587322026	**FB-2**	SM 2540C-2015	678707		
92587322001	**HGWA-4**	EPA 300.0 Rev 2.1 1993	678309		
92587322002	**HGWA-5**	EPA 300.0 Rev 2.1 1993	678309		
92587322003	**HGWA-6**	EPA 300.0 Rev 2.1 1993	678309		
92587322004	**HGWA-42D**	EPA 300.0 Rev 2.1 1993	678309		
92587322005	**HGWC-15**	EPA 300.0 Rev 2.1 1993	678309		
92587322006	**HGWC-16**	EPA 300.0 Rev 2.1 1993	678309		
92587322007	**HGWC-17**	EPA 300.0 Rev 2.1 1993	678309		
92587322008	**HGWC-18**	EPA 300.0 Rev 2.1 1993	678309		
92587322009	**MW-21D**	EPA 300.0 Rev 2.1 1993	678309		
92587322010	**MW-22**	EPA 300.0 Rev 2.1 1993	678309		
92587322011	**MW-33**	EPA 300.0 Rev 2.1 1993	678309		
92587322012	**MW-35**	EPA 300.0 Rev 2.1 1993	678309		
92587322013	**MW-37D**	EPA 300.0 Rev 2.1 1993	678309		
92587322014	**MW-51**	EPA 300.0 Rev 2.1 1993	679328		
92587322015	**DUP-2**	EPA 300.0 Rev 2.1 1993	678309		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-2
Pace Project No.: 92587322

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587322017	**HGWA-44D**	EPA 300.0 Rev 2.1 1993	676561		
92587322018	**HGWA-2**	EPA 300.0 Rev 2.1 1993	676561		
92587322019	**HGWA-3**	EPA 300.0 Rev 2.1 1993	676561		
92587322020	**HGWA-1**	EPA 300.0 Rev 2.1 1993	676561		
92587322021	**HGWA-43D**	EPA 300.0 Rev 2.1 1993	676561		
92587322022	**HGWC-14**	EPA 300.0 Rev 2.1 1993	678880		
92587322023	**MW-34D**	EPA 300.0 Rev 2.1 1993	678880		
92587322024	**MW-23D**	EPA 300.0 Rev 2.1 1993	678880		
92587322025	**EB-2**	EPA 300.0 Rev 2.1 1993	678880		
92587322026	**FB-2**	EPA 300.0 Rev 2.1 1993	678880		

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☒ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power **Project #:** **WO# : 92587322**

92587322

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: JPE 2/9/22

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☐ IR Gun ID: 083 ☒ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 2.4 **Correction Factor:** Add/Subtract (°C) +.2

Cooler Temp Corrected (°C): 2.6

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☒ No	☐ N/A	8.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace Analytical
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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.

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-2
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
	Requested Analysis Filtered (Y/N)																	Y/N	N	N	N	N		
1	HGWA-4	WT	G	2/7/2022	14:28			16	5	2		3							X	X	X	X	N	pH = 5.24
2	HGWA-5	WT	G	2/7/2022	16:51			17	5	2		3							X	X	X	X	N	pH = 6.51
3	HGWA-6	WT	G	2/7/2022	16:31			18	5	2		3							X	X	X	X	N	pH = 7.65
4	HGWA-42D	WT	G	2/7/2022	15:57			18	5	2		3							X	X	X	X	N	pH = 7.85
5						TJ 2/7/2022																		
6																								
7																								
8																								
9						TJ 2/7/2022																		
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Kessler / Geosyntec	2/7/2022	1730	Connor Cann / Geosyntec	2/7/2022	1730	
	Connor Cann / Geosyntec	2/9/2022	1240	Bgn King PACE	2/9/2022	12:40	
	Bgn King - PACE	2/9/2022	15:10	[signature]	2/9/22	1500	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Kessler, Connor Cann, Anthony Seurat

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 2/7/2022

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 for any invoices not paid within 30 days.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A
Required Client Information:
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: Fax:
Requested Due Date/TAT: 10 Day

Section B
Required Project Information:
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Hammond AP-2
Project Number:

Section C
Invoice Information:
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Nicole D'Oleo
Pace Profile #: 10839

REGULATORY AGENCY
NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | ☑ OTHER CCR
Site Location STATE: GA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

Requested Analysis Filtered (Y/N): N N N N

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWC-15	WT	G	2/8/2022	13:48			17	5	2		3						X	X	X	X	N	pH = 6.04
2	HGWC-16	WT	G	2/8/2022	12:09	TJ		18	5	2		3						X	X	X	X	N	pH = 7.18
3	HGWC-17	WT	G	2/8/2022	10:33	2/8/2022		18	5	2		3						X	X	X	X	N	pH = 6.42
4	HGWC-18	WT	G	2/8/2022	15:40			17	5	2		3						X	X	X	X	N	pH = 4.59
5	MW-21D	WT	G	2/8/2022	14:30			18	5	2		3						X	X	X	X	N	pH = 7.09
6	MW-22	WT	G	2/8/22	16:59			16	5	2		3						X	X	X	X	N	pH = 5.37
7	MW-33	WT	G	2/8/2022	16:35			16	5	2		3						X	X	X	X	N	pH = 4.42
8	MW-35	WT	G	2/8/2022	12:38			16	5	2		3						X	X	X	X	N	pH = 4.86
9	MW-37D	WT	G	2/8/2022	12:14			18	5	2		3						X	X	X	X	N	pH = 7.63
10	MW-51	WT	G	2/8/2022	14:10 (corrected) CC 2/9/22			16	5	2		3						X	X	X	X	N	pH = 6.57
11	DUP-2	WT	G	2/8/2022	0:00	TJ 2/8/2022		17	5	2		3						X	X	X	X	N	N/A
12																						N	

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Thomas Kessler / Geosyntec	2/8/2022	1730	Connor Cain / Geosyntec	2/8/2022	1730
Connor Cain / Geosyntec	2/9/2022	1240	Brooks - PACE	2/9/2022	12:40
Brooks - PACE	2/9/2022	15:00	[illegible]	2/9/22	1500

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

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Thomas Kessler, Connor Cain, Anthony Szwed
SIGNATURE of SAMPLER: [signatures]
DATE Signed (MM/DD/YY): 02/08/2022

*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.

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

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92586342**

92586342

Courier: ☐ Commercial ☑ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 2/3/22 JW

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☑ IR Gun ID: 230 Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 2.4 Correction Factor: Add/Subtract (°C) +0.2

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.6

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond Pooled Upgradient
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N): N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-44D	WT	G	2/1/2022	13:35			17	5	2		3							X	X	X	X	N	pH = 8.25
2	HGWA-2	WT	G	2/1/2022	11:52			17	5	2		3							X	X	X	X	N	pH = 5.24
3	HGWA-3	WT	G	2/1/2022	9:58			16	5	2		3							X	X	X	X	N	pH = 7.45
4	HGWA-1	WT	G	2/1/2022	12:13			17	5	2		3							X	X	X	X	N	pH = 7.19
5	HGWA-43D	WT	G	2/1/2022	10:28			17	5	2		3							X	X	X	X	N	pH = 7.52
6																								
7																								
8																								
9																								
10																								TJ 2/1/2022
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Hessler / Geosyntec	2/3/2022	1232	Ryan Williams / Pace	2/3/2022	1232	
	Ryan Williams / Pace	2/3/22	1517	Brenda Hart	2/3/22	1517	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Hessler, Anthony Sewell Consultant

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 02/01/2022

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 for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO#: 92587322**

PM: NMG **Due Date: 02/17/22**
CLIENT: GA-GA Power

Courier: ☐ Commercial ☑ Fed Ex ☐ UPS ☐ USPS ☑ Pace ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: MT 2/11/22

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 033

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.2 **Correction Factor:** Add/Subtract (°C) ±0.2

Cooler Temp Corrected (°C): 4.4

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix:				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-2
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	N	N	N	N		
1	HGWC-14	WT	G	2/9/2022	15:23				21	5	2		3						X	X	X	X	N	pH = 4.97
2	MW-34D	WT	G	2/9/2022	13:50				20	5	2		3						X	X	X	X	N	pH = 7.21
3						TJ 2/9/2022																		
4																								
5																								
6																								
7																								
8						TJ 2/9/2022																		
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Hessler/Geosyntec	2/10/2022	1136	Ryan Williams/Pace	2/11/2022	1136	
	Ryan Williams/Pace	2/11/2022	1417		2/11	1417	

SAMPLER NAME AND SIGNATURE			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Thomas Hessler					
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 2/9/2022				

*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.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-2
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-23D	WT	G	2/10/2022	9:49			18	5	2		3							X	X	X	X	N	pH = 6.87
2	EB-2	WT	G	2/10/2022	10:25			16	5	2		3							X	X	X	X	N	N/A
3	FB-2	WT	G	2/10/2022	10:30			16	5	2		3							X	X	X	X	N	N/A
4						TJ	2/10/2022																	Last sample
5																								
6																								
7																								
8						TJ	2/10/2022																	
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Hressler / Geosyntec	2/10/2022	1135	Ryan M. Williams / Pace	2/11/2022	1136	
	Ryan Williams / Pace	2/11/2022	1417		2/11	1417	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Hressler

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 2/10/2022

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 for any invoices not paid within 30 days.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 06, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 09, 2022 and February 11, 2022. 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,

Tyler Forney for
Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92587304001	**HGWA-4**	Water	02/07/22 14:28	02/09/22 12:40
92587304002	**HGWA-5**	Water	02/07/22 16:51	02/09/22 12:40
92587304003	**HGWA-6**	Water	02/07/22 16:31	02/09/22 12:40
92587304004	**HGWA-42D**	Water	02/07/22 15:57	02/09/22 12:40
92587304005	**HGWC-15**	Water	02/08/22 13:49	02/09/22 12:40
92587304006	**HGWC-16**	Water	02/08/22 12:09	02/09/22 12:40
92587304007	**HGWC-17**	Water	02/08/22 10:33	02/09/22 12:40
92587304008	**HGWC-18**	Water	02/08/22 15:40	02/09/22 12:40
92587304009	**MW-21D**	Water	02/08/22 14:30	02/09/22 12:40
92587304010	**MW-22**	Water	02/08/22 16:59	02/09/22 12:40
92587304011	**MW-33**	Water	02/08/22 16:35	02/09/22 12:40
92587304012	**MW-35**	Water	02/08/22 12:39	02/09/22 12:40
92587304013	**MW-37D**	Water	02/08/22 12:14	02/09/22 12:40
92587304014	**MW-51**	Water	02/08/22 14:10	02/09/22 12:40
92587304015	**DUP-2**	Water	02/08/22 00:00	02/09/22 12:40
92587304017	**HGWA-44D**	Water	02/01/22 13:35	02/09/22 12:40
92587304018	**HGWA-2**	Water	02/01/22 11:52	02/09/22 12:40
92587304019	**HGWA-3**	Water	02/01/22 09:58	02/09/22 12:40
92587304020	**HGWA-1**	Water	02/01/22 12:13	02/09/22 12:40
92587304021	**HGWA-43D**	Water	02/01/22 10:28	02/09/22 12:40
92587304022	**HGWC-14**	Water	02/09/22 15:23	02/11/22 11:35
92587304023	**MW-34D**	Water	02/09/22 13:50	02/11/22 11:35
92587304024	**MW-23D**	Water	02/10/22 09:49	02/11/22 11:35
92587304025	**EB-2**	Water	02/10/22 10:25	02/11/22 11:35
92587304026	**FB-2**	Water	02/10/22 10:30	02/11/22 11:35

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92587304001	**HGWA-4**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304002	**HGWA-5**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304003	**HGWA-6**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304004	**HGWA-42D**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304005	**HGWC-15**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304006	**HGWC-16**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304007	**HGWC-17**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304008	**HGWC-18**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304009	**MW-21D**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304010	**MW-22**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304011	**MW-33**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304012	**MW-35**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304013	**MW-37D**	EPA 9315	JC2	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304014	**MW-51**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304015	**DUP-2**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304022	**HGWC-14**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304023	**MW-34D**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304024	**MW-23D**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304025	**EB-2**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92587304026	**FB-2**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587304001	**HGWA-4**					
EPA 9315	Radium-226	0.0978 ± 0.0780 (0.124) C:96% T:NA	pCi/L		03/22/22 09:52	
EPA 9320	Radium-228	-0.128 ± 0.418 (1.02) C:67% T:99%	pCi/L		03/08/22 18:43	
Total Radium Calculation	Total Radium	0.0978 ± 0.496 (1.14)	pCi/L		03/22/22 15:27	
92587304002	**HGWA-5**					
EPA 9315	Radium-226	0.106 ± 0.0880 (0.151) C:92% T:NA	pCi/L		03/22/22 09:52	
EPA 9320	Radium-228	-0.225 ± 0.441 (1.09) C:68% T:94%	pCi/L		03/08/22 18:43	
Total Radium Calculation	Total Radium	0.106 ± 0.529 (1.24)	pCi/L		03/22/22 15:27	
92587304003	**HGWA-6**					
EPA 9315	Radium-226	0.144 ± 0.0933 (0.134) C:95% T:NA	pCi/L		03/22/22 09:52	
EPA 9320	Radium-228	0.202 ± 0.528 (1.18) C:66% T:91%	pCi/L		03/08/22 18:43	
Total Radium Calculation	Total Radium	0.346 ± 0.621 (1.31)	pCi/L		03/22/22 15:27	
92587304004	**HGWA-42D**					
EPA 9315	Radium-226	0.0660 ± 0.0718 (0.137) C:96% T:NA	pCi/L		03/22/22 09:52	
EPA 9320	Radium-228	-0.365 ± 0.402 (1.04) C:72% T:93%	pCi/L		03/08/22 18:43	
Total Radium Calculation	Total Radium	0.0660 ± 0.474 (1.18)	pCi/L		03/22/22 15:27	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587304005	**HGWC-15**					
EPA 9315	Radium-226	0.0242 ± 0.0494 (0.115) C:94% T:NA	pCi/L		03/22/22 10:20	
EPA 9320	Radium-228	0.000 ± 0.541 (1.26) C:73% T:87%	pCi/L		03/08/22 18:58	
Total Radium Calculation	Total Radium	0.0242 ± 0.590 (1.38)	pCi/L		03/22/22 15:27	
92587304006	**HGWC-16**					
EPA 9315	Radium-226	0.168 ± 0.0990 (0.136) C:95% T:NA	pCi/L		03/22/22 10:20	
EPA 9320	Radium-228	-0.0483 ± 0.505 (1.19) C:68% T:94%	pCi/L		03/08/22 18:59	
Total Radium Calculation	Total Radium	0.168 ± 0.604 (1.33)	pCi/L		03/22/22 15:27	
92587304007	**HGWC-17**					
EPA 9315	Radium-226	0.0786 ± 0.0718 (0.125) C:99% T:NA	pCi/L		03/22/22 10:21	
EPA 9320	Radium-228	0.922 ± 0.646 (1.25) C:68% T:91%	pCi/L		03/08/22 18:59	
Total Radium Calculation	Total Radium	1.00 ± 0.718 (1.38)	pCi/L		03/22/22 15:27	
92587304008	**HGWC-18**					
EPA 9315	Radium-226	0.394 ± 0.164 (0.209) C:97% T:NA	pCi/L		03/22/22 10:21	
EPA 9320	Radium-228	0.536 ± 0.618 (1.30) C:69% T:86%	pCi/L		03/08/22 18:59	
Total Radium Calculation	Total Radium	0.930 ± 0.782 (1.51)	pCi/L		03/22/22 15:27	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587304009	**MW-21D**					
EPA 9315	Radium-226	0.0336 ± 0.0842 (0.201) C:99% T:NA	pCi/L		03/22/22 10:21	
EPA 9320	Radium-228	0.429 ± 0.471 (0.981) C:73% T:93%	pCi/L		03/08/22 18:52	
Total Radium Calculation	Total Radium	0.463 ± 0.555 (1.18)	pCi/L		03/22/22 15:27	
92587304010	**MW-22**					
EPA 9315	Radium-226	0.0657 ± 0.0711 (0.137) C:101% T:NA	pCi/L		03/22/22 10:25	
EPA 9320	Radium-228	-0.375 ± 0.416 (1.05) C:71% T:99%	pCi/L		03/08/22 18:47	
Total Radium Calculation	Total Radium	0.0657 ± 0.487 (1.19)	pCi/L		03/22/22 15:27	
92587304011	**MW-33**					
EPA 9315	Radium-226	0.353 ± 0.147 (0.166) C:92% T:NA	pCi/L		03/22/22 10:25	
EPA 9320	Radium-228	0.614 ± 0.552 (1.12) C:69% T:94%	pCi/L		03/08/22 18:47	
Total Radium Calculation	Total Radium	0.967 ± 0.699 (1.29)	pCi/L		03/22/22 15:27	
92587304012	**MW-35**					
EPA 9315	Radium-226	0.211 ± 0.122 (0.178) C:83% T:NA	pCi/L		03/22/22 10:25	
EPA 9320	Radium-228	1.17 ± 0.577 (0.976) C:73% T:93%	pCi/L		03/08/22 18:47	
Total Radium Calculation	Total Radium	1.38 ± 0.699 (1.15)	pCi/L		03/22/22 15:27	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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SUMMARY OF DETECTION

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587304013	**MW-37D**					
EPA 9315	Radium-226	0.0655 ± 0.0803 (0.166) C:94% T:NA	pCi/L		03/22/22 10:25	
EPA 9320	Radium-228	0.279 ± 0.414 (0.891) C:72% T:91%	pCi/L		03/08/22 18:47	
Total Radium Calculation	Total Radium	0.345 ± 0.494 (1.06)	pCi/L		03/22/22 15:27	
92587304014	**MW-51**					
EPA 9315	Radium-226	0.0667 ± 0.0763 (0.152) C:94% T:NA	pCi/L		03/22/22 10:25	
EPA 9320	Radium-228	0.364 ± 0.466 (0.989) C:68% T:97%	pCi/L		03/08/22 18:47	
Total Radium Calculation	Total Radium	0.431 ± 0.542 (1.14)	pCi/L		03/22/22 15:32	
92587304015	**DUP-2**					
EPA 9315	Radium-226	0.0710 ± 0.0820 (0.165) C:90% T:NA	pCi/L		03/22/22 10:25	
EPA 9320	Radium-228	1.10 ± 0.591 (1.04) C:69% T:94%	pCi/L		03/08/22 18:47	
Total Radium Calculation	Total Radium	1.17 ± 0.673 (1.21)	pCi/L		03/22/22 15:32	
92587304022	**HGWC-14**					
EPA 9315	Radium-226	0.239 ± 0.143 (0.229) C:104% T:NA	pCi/L		03/08/22 08:22	
EPA 9320	Radium-228	0.107 ± 0.443 (0.995) C:80% T:85%	pCi/L		03/07/22 11:54	
Total Radium Calculation	Total Radium	0.346 ± 0.586 (1.22)	pCi/L		03/10/22 17:16	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587304023	**MW-34D**					
EPA 9315	Radium-226	0.240 ± 0.122 (0.156) C:117% T:NA	pCi/L		03/08/22 08:22	
EPA 9320	Radium-228	0.0566 ± 0.431 (0.989) C:81% T:89%	pCi/L		03/07/22 15:12	
Total Radium Calculation	Total Radium	0.297 ± 0.553 (1.15)	pCi/L		03/10/22 17:16	
92587304024	**MW-23D**					
EPA 9315	Radium-226	0.145 ± 0.109 (0.189) C:103% T:NA	pCi/L		03/08/22 08:22	
EPA 9320	Radium-228	0.774 ± 0.556 (1.09) C:79% T:85%	pCi/L		03/07/22 15:12	
Total Radium Calculation	Total Radium	0.919 ± 0.665 (1.28)	pCi/L		03/10/22 17:16	
92587304025	**EB-2**					
EPA 9315	Radium-226	0.0225 ± 0.0664 (0.166) C:96% T:NA	pCi/L		03/08/22 08:22	
EPA 9320	Radium-228	0.323 ± 0.352 (0.738) C:89% T:86%	pCi/L		03/07/22 15:12	
Total Radium Calculation	Total Radium	0.346 ± 0.418 (0.904)	pCi/L		03/10/22 17:16	
92587304026	**FB-2**					
EPA 9315	Radium-226	-0.0133 ± 0.0531 (0.169) C:99% T:NA	pCi/L		03/08/22 08:22	
EPA 9320	Radium-228	0.494 ± 0.345 (0.671) C:90% T:87%	pCi/L		03/07/22 15:12	
Total Radium Calculation	Total Radium	0.494 ± 0.398 (0.840)	pCi/L		03/10/22 17:16	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWA-4 **Lab ID: 92587304001** Collected: 02/07/22 14:28 Received: 02/09/22 12:40 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	**0.0978 ± 0.0780 (0.124) C:96% T:NA**	pCi/L	03/22/22 09:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.128 ± 0.418 (1.02) C:67% T:99%**	pCi/L	03/08/22 18:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0978 ± 0.496 (1.14)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWA-5 **Lab ID: 92587304002** Collected: 02/07/22 16:51 Received: 02/09/22 12:40 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	**0.106 ± 0.0880 (0.151) C:92% T:NA**	pCi/L	03/22/22 09:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.225 ± 0.441 (1.09) C:68% T:94%**	pCi/L	03/08/22 18:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.106 ± 0.529 (1.24)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWA-6 **Lab ID: 92587304003** Collected: 02/07/22 16:31 Received: 02/09/22 12:40 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	**0.144 ± 0.0933 (0.134) C:95% T:NA**	pCi/L	03/22/22 09:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.202 ± 0.528 (1.18) C:66% T:91%**	pCi/L	03/08/22 18:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.346 ± 0.621 (1.31)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWA-42D **Lab ID: 92587304004** Collected: 02/07/22 15:57 Received: 02/09/22 12:40 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	**0.0660 ± 0.0718 (0.137) C:96% T:NA**	pCi/L	03/22/22 09:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.365 ± 0.402 (1.04) C:72% T:93%**	pCi/L	03/08/22 18:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0660 ± 0.474 (1.18)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWC-15 **Lab ID: 92587304005** Collected: 02/08/22 13:49 Received: 02/09/22 12:40 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	**0.0242 ± 0.0494 (0.115) C:94% T:NA**	pCi/L	03/22/22 10:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.000 ± 0.541 (1.26) C:73% T:87%**	pCi/L	03/08/22 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0242 ± 0.590 (1.38)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWC-16 **Lab ID: 92587304006** Collected: 02/08/22 12:09 Received: 02/09/22 12:40 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	**0.168 ± 0.0990 (0.136) C:95% T:NA**	pCi/L	03/22/22 10:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.0483 ± 0.505 (1.19) C:68% T:94%**	pCi/L	03/08/22 18:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.168 ± 0.604 (1.33)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWC-17 **Lab ID: 92587304007** Collected: 02/08/22 10:33 Received: 02/09/22 12:40 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	**0.0786 ± 0.0718 (0.125) C:99% T:NA**	pCi/L	03/22/22 10:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.922 ± 0.646 (1.25) C:68% T:91%**	pCi/L	03/08/22 18:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.00 ± 0.718 (1.38)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWC-18 **Lab ID: 92587304008** Collected: 02/08/22 15:40 Received: 02/09/22 12:40 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	**0.394 ± 0.164 (0.209) C:97% T:NA**	pCi/L	03/22/22 10:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.536 ± 0.618 (1.30) C:69% T:86%**	pCi/L	03/08/22 18:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.930 ± 0.782 (1.51)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-21D **Lab ID: 92587304009** Collected: 02/08/22 14:30 Received: 02/09/22 12:40 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	**0.0336 ± 0.0842 (0.201) C:99% T:NA**	pCi/L	03/22/22 10:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.429 ± 0.471 (0.981) C:73% T:93%**	pCi/L	03/08/22 18:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.463 ± 0.555 (1.18)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-22 **Lab ID: 92587304010** Collected: 02/08/22 16:59 Received: 02/09/22 12:40 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	**0.0657 ± 0.0711 (0.137) C:101% T:NA**	pCi/L	03/22/22 10:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.375 ± 0.416 (1.05) C:71% T:99%**	pCi/L	03/08/22 18:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0657 ± 0.487 (1.19)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-33 **Lab ID: 92587304011** Collected: 02/08/22 16:35 Received: 02/09/22 12:40 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	**0.353 ± 0.147 (0.166) C:92% T:NA**	pCi/L	03/22/22 10:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.614 ± 0.552 (1.12) C:69% T:94%**	pCi/L	03/08/22 18:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.967 ± 0.699 (1.29)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-35 **Lab ID: 92587304012** Collected: 02/08/22 12:39 Received: 02/09/22 12:40 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	**0.211 ± 0.122 (0.178) C:83% T:NA**	pCi/L	03/22/22 10:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.17 ± 0.577 (0.976) C:73% T:93%**	pCi/L	03/08/22 18:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.38 ± 0.699 (1.15)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-37D **Lab ID: 92587304013** Collected: 02/08/22 12:14 Received: 02/09/22 12:40 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	**0.0655 ± 0.0803 (0.166) C:94% T:NA**	pCi/L	03/22/22 10:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.279 ± 0.414 (0.891) C:72% T:91%**	pCi/L	03/08/22 18:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.345 ± 0.494 (1.06)**	pCi/L	03/22/22 15:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-51 **Lab ID: 92587304014** Collected: 02/08/22 14:10 Received: 02/09/22 12:40 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	**0.0667 ± 0.0763 (0.152) C:94% T:NA**	pCi/L	03/22/22 10:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.364 ± 0.466 (0.989) C:68% T:97%**	pCi/L	03/08/22 18:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.431 ± 0.542 (1.14)**	pCi/L	03/22/22 15:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: DUP-2 **Lab ID: 92587304015** Collected: 02/08/22 00:00 Received: 02/09/22 12:40 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	**0.0710 ± 0.0820 (0.165) C:90% T:NA**	pCi/L	03/22/22 10:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.10 ± 0.591 (1.04) C:69% T:94%**	pCi/L	03/08/22 18:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.17 ± 0.673 (1.21)**	pCi/L	03/22/22 15:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: HGWC-14 **Lab ID: 92587304022** Collected: 02/09/22 15:23 Received: 02/11/22 11:35 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	**0.239 ± 0.143 (0.229) C:104% T:NA**	pCi/L	03/08/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.107 ± 0.443 (0.995) C:80% T:85%**	pCi/L	03/07/22 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.346 ± 0.586 (1.22)**	pCi/L	03/10/22 17:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-34D **Lab ID: 92587304023** Collected: 02/09/22 13:50 Received: 02/11/22 11:35 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	**0.240 ± 0.122 (0.156) C:117% T:NA**	pCi/L	03/08/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.0566 ± 0.431 (0.989) C:81% T:89%**	pCi/L	03/07/22 15:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.297 ± 0.553 (1.15)**	pCi/L	03/10/22 17:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: MW-23D **Lab ID: 92587304024** Collected: 02/10/22 09:49 Received: 02/11/22 11:35 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	**0.145 ± 0.109 (0.189) C:103% T:NA**	pCi/L	03/08/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.774 ± 0.556 (1.09) C:79% T:85%**	pCi/L	03/07/22 15:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.919 ± 0.665 (1.28)**	pCi/L	03/10/22 17:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: EB-2 **Lab ID: 92587304025** Collected: 02/10/22 10:25 Received: 02/11/22 11:35 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	**0.0225 ± 0.0664 (0.166) C:96% T:NA**	pCi/L	03/08/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.323 ± 0.352 (0.738) C:89% T:86%**	pCi/L	03/07/22 15:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.346 ± 0.418 (0.904)**	pCi/L	03/10/22 17:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Sample: FB-2 **Lab ID: 92587304026** Collected: 02/10/22 10:30 Received: 02/11/22 11:35 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	**-0.0133 ± 0.0531 (0.169) C:99% T:NA**	pCi/L	03/08/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.494 ± 0.345 (0.671) C:90% T:87%**	pCi/L	03/07/22 15:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.494 ± 0.398 (0.840)**	pCi/L	03/10/22 17:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

QC Batch: 486616
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92587304001, 92587304002, 92587304003, 92587304004, 92587304005, 92587304006, 92587304007, 92587304008, 92587304009, 92587304010, 92587304011, 92587304012, 92587304013, 92587304014, 92587304015

METHOD BLANK: 2353263
Matrix: Water
Associated Lab Samples: 92587304001, 92587304002, 92587304003, 92587304004, 92587304005, 92587304006, 92587304007, 92587304008, 92587304009, 92587304010, 92587304011, 92587304012, 92587304013, 92587304014, 92587304015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00708 ± 0.0659 (0.175) C:97% T:NA	pCi/L	03/22/22 09:52	

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

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

QC Batch: 486611 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92587304022, 92587304023, 92587304024, 92587304025, 92587304026

METHOD BLANK: 2353259 Matrix: Water
Associated Lab Samples: 92587304022, 92587304023, 92587304024, 92587304025, 92587304026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0325 ± 0.0552 (0.191) C:101% T:NA	pCi/L	03/08/22 08:21	

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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110 Technology Parkway
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(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

QC Batch: 486656 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92587304022, 92587304023, 92587304024, 92587304025, 92587304026

METHOD BLANK: 2353491 Matrix: Water
Associated Lab Samples: 92587304022, 92587304023, 92587304024, 92587304025, 92587304026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.534 ± 0.356 (0.681) C:77% T:89%	pCi/L	03/07/22 11:50	

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: HAMMOND AP-2 RAD
Pace Project No.: 92587304

QC Batch: 486660
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92587304001, 92587304002, 92587304003, 92587304004, 92587304005, 92587304006, 92587304007, 92587304008, 92587304009, 92587304010, 92587304011, 92587304012, 92587304013, 92587304014, 92587304015

METHOD BLANK: 2353496
Matrix: Water
Associated Lab Samples: 92587304001, 92587304002, 92587304003, 92587304004, 92587304005, 92587304006, 92587304007, 92587304008, 92587304009, 92587304010, 92587304011, 92587304012, 92587304013, 92587304014, 92587304015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0198 ± 0.286 (0.668) C:70% T:93%	pCi/L	03/08/22 15:19	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

QC Batch: 488988
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples:

METHOD BLANK: 2364929 Matrix: Water

Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.257 ± 0.372 (0.800) C:69% T:81%	pCi/L	03/15/22 15:00	

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587304001	HGWA-4	EPA 9315	486616		
92587304002	HGWA-5	EPA 9315	486616		
92587304003	HGWA-6	EPA 9315	486616		
92587304004	HGWA-42D	EPA 9315	486616		
92587304005	HGWC-15	EPA 9315	486616		
92587304006	HGWC-16	EPA 9315	486616		
92587304007	HGWC-17	EPA 9315	486616		
92587304008	HGWC-18	EPA 9315	486616		
92587304009	MW-21D	EPA 9315	486616		
92587304010	MW-22	EPA 9315	486616		
92587304011	MW-33	EPA 9315	486616		
92587304012	MW-35	EPA 9315	486616		
92587304013	MW-37D	EPA 9315	486616		
92587304014	MW-51	EPA 9315	486616		
92587304015	DUP-2	EPA 9315	486616		
92587304022	HGWC-14	EPA 9315	486611		
92587304023	MW-34D	EPA 9315	486611		
92587304024	MW-23D	EPA 9315	486611		
92587304025	EB-2	EPA 9315	486611		
92587304026	FB-2	EPA 9315	486611		
92587304001	HGWA-4	EPA 9320	486660		
92587304002	HGWA-5	EPA 9320	486660		
92587304003	HGWA-6	EPA 9320	486660		
92587304004	HGWA-42D	EPA 9320	486660		
92587304005	HGWC-15	EPA 9320	486660		
92587304006	HGWC-16	EPA 9320	486660		
92587304007	HGWC-17	EPA 9320	486660		
92587304008	HGWC-18	EPA 9320	486660		
92587304009	MW-21D	EPA 9320	486660		
92587304010	MW-22	EPA 9320	486660		
92587304011	MW-33	EPA 9320	486660		
92587304012	MW-35	EPA 9320	486660		
92587304013	MW-37D	EPA 9320	486660		
92587304014	MW-51	EPA 9320	486660		
92587304015	DUP-2	EPA 9320	486660		
92587304022	HGWC-14	EPA 9320	486656		
92587304023	MW-34D	EPA 9320	486656		
92587304024	MW-23D	EPA 9320	486656		
92587304025	EB-2	EPA 9320	486656		
92587304026	FB-2	EPA 9320	486656		
92587304001	HGWA-4	Total Radium Calculation	492151		
92587304002	HGWA-5	Total Radium Calculation	492151		
92587304003	HGWA-6	Total Radium Calculation	492151		
92587304004	HGWA-42D	Total Radium Calculation	492151		
92587304005	HGWC-15	Total Radium Calculation	492151		
92587304006	HGWC-16	Total Radium Calculation	492151		
92587304007	HGWC-17	Total Radium Calculation	492151		

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-2 RAD
Pace Project No.: 92587304

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587304008	**HGWC-18**	Total Radium Calculation	492151		
92587304009	**MW-21D**	Total Radium Calculation	492151		
92587304010	**MW-22**	Total Radium Calculation	492151		
92587304011	**MW-33**	Total Radium Calculation	492151		
92587304012	**MW-35**	Total Radium Calculation	492151		
92587304013	**MW-37D**	Total Radium Calculation	492151		
92587304014	**MW-51**	Total Radium Calculation	492154		
92587304015	**DUP-2**	Total Radium Calculation	492154		
92587304022	**HGWC-14**	Total Radium Calculation	489606		
92587304023	**MW-34D**	Total Radium Calculation	489606		
92587304024	**MW-23D**	Total Radium Calculation	489606		
92587304025	**EB-2**	Total Radium Calculation	489606		
92587304026	**FB-2**	Total Radium Calculation	489606		

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☒ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power **Project #:** **WO# : 92587322**

92587322

Courier: ☐ Commercial ☒ Pace ☐ Fed Ex ☐ UPS ☐ USPS ☐ Other: ☐ Client

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: JPE 2/9/22

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☐ IR Gun ID: 083 ☒ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 2.4 **Correction Factor:** Add/Subtract (°C) +.2

Cooler Temp Corrected (°C): 2.6

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☒ No	☐ N/A	8.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace Analytical
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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.

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-2
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
	Requested Analysis Filtered (Y/N)																	Y/N	N	N	N	N		
1	HGWA-4	WT	G	2/7/2022	14:28			16	5	2		3							X	X	X	X	N	pH = 5.24
2	HGWA-5	WT	G	2/7/2022	16:51			17	5	2		3							X	X	X	X	N	pH = 6.51
3	HGWA-6	WT	G	2/7/2022	16:31			18	5	2		3							X	X	X	X	N	pH = 7.65
4	HGWA-42D	WT	G	2/7/2022	15:57			18	5	2		3							X	X	X	X	N	pH = 7.85
5						TJ 2/7/2022																		
6																								
7																								
8																								
9						TJ 2/7/2022																		
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Kessler / Geosyntec	2/7/2022	1730	Connor Cann / Geosyntec	2/7/2022	1730	
	Connor Cann / Geosyntec	2/9/2022	1240	Bang King / PACE	2/9/2022	12:40	
	Bang King - PACE	2/9/2022	15:10	[signature]	2/9/22	1500	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Kessler, Connor Cann, Anthony Seward

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 2/7/2022

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 for any invoices not paid within 30 days.

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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.

Page: 1 of 1

Section A Required Client Information:
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: Fax:
Requested Due Date/TAT: 10 Day

Section B Required Project Information:
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Hammond AP-2
Project Number:

Section C Invoice Information:
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Nicole D'Oleo
Pace Profile #: 10839

REGULATORY AGENCY
NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | ✓ OTHER CCR
Site Location STATE: GA

Section D Required Client Information
Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	Chloride, Fluoride, Sulfate (N)	Full App. III and IV metals (N)	RAD 226/228 (N)	TDS (N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWC-15	WT	G	2/8/2022	13:48			17	5	2		3							X	X	X	X	N	pH = 6.04
2	HGWC-16	WT	G	2/8/2022	12:09	TJ		18	5	2		3							X	X	X	X	N	pH = 7.18
3	HGWC-17	WT	G	2/8/2022	10:33	2/8/2022		18	5	2		3							X	X	X	X	N	pH = 6.42
4	HGWC-18	WT	G	2/8/2022	15:40			17	5	2		3							X	X	X	X	N	pH = 4.59
5	MW-21D	WT	G	2/8/2022	14:30			18	5	2		3							X	X	X	X	N	pH = 7.09
6	MW-22	WT	G	2/8/22	16:59			18	5	2		3							X	X	X	X	N	pH = 5.37
7	MW-33	WT	G	2/8/2022	16:35			18	5	2		3							X	X	X	X	N	pH = 4.42
8	MW-35	WT	G	2/8/2022	12:38			18	5	2		3							X	X	X	X	N	pH = 4.86
9	MW-37D	WT	G	2/8/2022	12:14			18	5	2		3							X	X	X	X	N	pH = 7.63
10	MW-51	WT	G	2/8/2022	10:10 (corrected, 2/9/22)			16	5	2		3							X	X	X	X	N	pH = 6.57
11	DUP-2	WT	G	2/8/2022	0:00	TJ 2/8/2022		17	5	2		3							X	X	X	X	N	N/A
12																								

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Thomas Kessler / Geosyntec	2/8/2022	1730	Connor Cain / Geosyntec	2/8/2022	1730
Connor Cain / Geosyntec	2/9/2022	1240	[signature] - PACE	2/9/2022	12:40
[signature] - PACE	2/9/2022	15:00	[signature]	2/9/22	15:00

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

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Thomas Kessler, Connor Cain, Anthony Sewell
SIGNATURE of SAMPLER: [signatures]
DATE Signed (MM/DD/YY): 02/08/2022

*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.

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92586342**

92586342

Courier: ☐ Commercial ☑ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 2/3/22 JW

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☑ IR Gun ID: 230 Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 2.4 Correction Factor: Add/Subtract (°C) +0.2

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.6

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

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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:
- Company: GA Power
- Address: Atlanta, GA
- Email To: SCS Contacts
- Phone:
- Fax:
- Requested Due Date/TAT: 10 Day

Section B Required Project Information:
- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Purchase Order No.:
- Project Name: Plant Hammond Pooled Upgradient
- Project Number:

Section C Invoice Information:
- Attention: Southern Co.
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: Nicole D'Oleo
- Pace Profile #: 10839

Page: 1 of 1

REGULATORY AGENCY
- NPDES
- GROUND WATER
- DRINKING WATER
- UST
- RCRA
- ✓ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): N

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-44D	WT	G	2/1/2022	13:35			17	5	2		3							X	X	X	X	N	pH = 8.25
2	HGWA-2	WT	G	2/1/2022	11:52			17	5	2		3							X	X	X	X	N	pH = 5.24
3	HGWA-3	WT	G	2/1/2022	9:58			16	5	2		3							X	X	X	X	N	pH = 7.45
4	HGWA-1	WT	G	2/1/2022	12:13			17	5	2		3							X	X	X	X	N	pH = 7.19
5	HGWA-43D	WT	G	2/1/2022	10:28			17	5	2		3							X	X	X	X	N	pH = 7.52
6																								
7																								
8																								
9																								
10																								TJ 2/1/2022
11																								
12																								

(Composite columns struck through, annotated "TJ 2/1/22")

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Kessler / Geosyntec	2/3/2022	1232	Ryan Williams / Pace	2/3/2022	1232	
	Ryan Williams / Pace	2/3/22	1517	[illegible] / Pace	2/3/22	1517	

SAMPLER NAME AND SIGNATURE
- PRINT Name of SAMPLER: Thomas Kessler, Anthony Seurat, Connolan
- SIGNATURE of SAMPLER: [signature]
- DATE Signed (MM/DD/YY): 02/01/2022

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

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA power

Project #: **WO#: 92587322**

PM: NMG **Due Date: 02/17/22**
CLIENT: GA-GA Power

Courier: ☐ Commercial ☑ Fed Ex ☐ UPS ☐ USPS ☑ Pace ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: MT 2/11/22

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 033

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.2 **Correction Factor:** Add/Subtract (°C) ±0.2

Cooler Temp Corrected (°C): 4.4

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix:				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY **Field Data Required?** ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-2
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)	N	N	N	N		
1	HGWC-14	WT	G	2/9/2022	15:23				21	5	2		3						X	X	X	X	N	pH = 4.97
2	MW-34D	WT	G	2/9/2022	13:50				20	5	2		3						X	X	X	X	N	pH = 7.21
3						TJ 2/9/2022																		
4																								
5																								
6																								
7																								
8						TJ 2/9/2022																		
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Hessler/Geosyntec	2/10/2022	1136	Ryan Williams/Pace	2/11/2022	1136	
	Ryan Williams/Pace	2/11/2022	1417		2/11	1417	

SAMPLER NAME AND SIGNATURE			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Thomas Hessler					
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 2/9/2022				

*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.

Pace Analytical
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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.

Page: 1 of 1

Section A — Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-2
Project Number:	

Section C — Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D — Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
	Requested Analysis Filtered (Y/N)																		N	N	N	N		
1	MW-23D	WT	G	2/10/2022	9:49			18	5	2		3							X	X	X	X	N	pH = 6.87
2	EB-2	WT	G	2/10/2022	10:25			16	5	2		3							X	X	X	X	N	N/A
3	FB-2	WT	G	2/10/2022	10:30			16	5	2		3							X	X	X	X	N	N/A
4						TJ	2/10/2022																	Last sample
5																								
6																								
7																								
8						TJ	2/10/2022																	
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Hressler / Geosyntec	2/10/2022	1135	Ryan M. Williams / Pace	2/11/2022	1136	
	Ryan Williams / Pace	2/11/2022	1417		2/11	1417	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Hressler

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 2/10/2022

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 for any invoices not paid within 30 days.

Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: JC2
Date: 3/1/2022
Worklist: 65294
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2353259
MB concentration:	-0.033
M/B Counting Uncertainty:	0.055
MB MDC:	0.191
MB Numerical Performance Indicator:	-1.16
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS65294	**LCSD65294**
Count Date:	3/8/2022	3/8/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.029	24.029
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.506
Target Conc. (pCi/L, g, F):	4.777	4.752
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	4.910	4.441
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.508	0.466
Numerical Performance Indicator:	0.51	-1.30
Percent Recovery:	102.79%	93.46%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS65294	92587080025
Duplicate Sample I.D.	LCSD65294	92587080025DUP
Sample Result (pCi/L, g, F):	4.910	0.708
Sample Result Counting Uncertainty (pCi/L, g, F):	0.508	0.212
Sample Duplicate Result (pCi/L, g, F):	4.441	0.789
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.466	0.203
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	1.334	-0.540
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.51%	10.80%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

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:		
(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:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JSM
Date:	3/3/2022
Worklist:	65309
Matrix:	WT

Method Blank Assessment	
MB Sample ID	2353491
MB concentration:	0.534
M/B 2 Sigma CSU:	0.356
MB MDC:	0.681
MB Numerical Performance Indicator:	2.94
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS65309	**LCSD65309**
Count Date:	3/7/2022	3/7/2022
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	36.090	36.090
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.810	0.805
Target Conc. (pCi/L, g, F):	4.454	4.482
Uncertainty (Calculated):	0.218	0.220
Result (pCi/L, g, F):	4.392	4.287
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.963	0.935
Numerical Performance Indicator:	-0.12	-0.40
Percent Recovery:	98.60%	95.66%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

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:		
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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS65309	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD65309	
Sample Result (pCi/L, g, F):	4.392	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.963	
Sample Duplicate Result (pCi/L, g, F):	4.287	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.935	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.153	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.03%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:

VALIDATION REPORT

Geosyntec consultants

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Memorandum

Date:	June 13, 2022
To:	Whitney Law
From:	Matthew Richardson
CC:	J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 92587322**

SITE: Plant Hammond AP-2

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twenty-two aqueous samples, one field duplicate, one field blank and one equipment blank, collected 1 and 8-10 February 2022, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services Atlanta, Peachtree Corners, Georgia, for the following analytical tests:

- Calcium by United States Environmental Protection Agency (US EPA) Methods 3010A/6010D
- Metals by USEPA Methods 3005A/6020B
- Mercury by USEPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C

The samples were analyzed at Pace Analytical Services Asheville, North Carolina, for the following analytical test:

- Anions (Chloride, Fluoride and Sulfate) by USEPA Method 300.0

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
92587322001	HGWA-4
92587322002	HGWA-5
92587322003	HGWA-6
92587322004	HGWA-42D
92587322005	HGWC-15
92587322006	HGWC-16
92587322007	HGWC-17
92587322008	HGWC-18
92587322009	MW-21D
92587322010	MW-22
92587322011	MW-33
92587322012	MW-35
92587322013	MW-37D

Laboratory ID	Client ID
92587322014	MW-51
92587322015	DUP-2
92587322017	HGWA-44D
92587322018	HGWA-2
92587322019	HGWA-3
92587322020	HGWA-1
92587322021	HGWA-43D
92587322022	HGWC-14
92587322023	MW-34D
92587322024	MW-23D
92587322025	EB-2
92587322026	FB-2

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

The results flagged as "ND" in the electronic data deliverable (EDD) were changed to U.

The field pH data included in the laboratory report were not validated.

1.0 METALS

The samples were analyzed for metals by USEPA methods 3010A/6010D and USEPA methods 3005A/6020B. (Mercury was evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank

✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
⊗ Field Blank
⊗ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six method blanks were reported (batches 678931, 680760, 680899, 678928, 680757 and 680871). Metals were not detected in the method blanks above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

Two sample set specific MS/MSD pairs were reported for calcium by US EPA method 6010D, using samples HGWA-6 and MW-37D. The relative percent difference (RPD) result was within the laboratory specified acceptance criteria.

The recoveries of calcium in the MS/MSD pair using sample HGWA-6 were high and outside of the laboratory specified acceptance criteria. Since the calcium concentration in sample HGWA-6 was greater than four times the spike concentration, no qualifications were applied to the data.

The recoveries of calcium in the MS/MSD pair using sample MW-37D were low and outside of the laboratory specified acceptance criteria. Since the calcium concentration in sample MW-37D was greater than four times the spike concentration, no qualifications were applied to the data.

One batch MS/MSD pair was reported for calcium. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Two sample set specific MS/MSD pairs were reported for metals by US EPA method 6020B, using samples HGWA-5 and MW-51. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exception.

The MS recovery of boron in the MS/MSD pair using sample HGWA-6 was low and outside of the laboratory specified acceptance criteria. Since the boron concentration in sample HGWA-6 was greater than four times the spike concentration, no qualifications were applied to the data.

One batch MS/MSD pair was reported for metals by US EPA method 6020B. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank was collected with the sample set, EB-2. Metals were not detected in the equipment blank above the MDLs, with the following exception.

Barium and boron were detected in the equipment blank at estimated concentrations greater than the MDLs and less than the reporting limits (RLs). Since the estimated concentrations of barium and boron in the equipment blank were U qualified as not detected at the RLs due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

1.7 Field Blank

One field blank was collected with the sample set, FB-2. Metals were not detected in the field blank above the MDLs, with the following exception.

Barium and boron were detected in the field blank at estimated concentrations greater than the MDLs and less than the RLs. Therefore, the estimated concentrations of barium and boron in the associated samples were U qualified as not detected at the RLs.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
EB-2	Barium	0.0026	J	0.0050	U	3
EB-2	Boron	0.020	J	0.040	U	3
HGWA-4	Boron	0.017	J	0.040	U	3
HGWA-6	Boron	0.019	J	0.040	U	3
HGWA-3	Boron	0.011	J	0.040	U	3
HGWA-1	Boron	0.016	J	0.040	U	3

mg/L-milligrams per liter
J-estimated concentration greater than the MDL and less than the RL
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-2. Acceptable precision (RPD $\leq$ 30%) was demonstrated between the field duplicate and the original sample, HGWC-15, with the following exception.

The RPD for cobalt was greater than 30% in the field duplicate pair. Therefore, the cobalt concentrations in samples DUP-2 and HGWC-15 were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	RPD	Validation Result (mg/L)	Validation Qualifier	Reason Code
HGWC-15	Cobalt	0.0081	NA	46	0.0081	J	7
DUP-2	Cobalt	0.013	NA		0.013	J	7

mg/L-milligrams per liter
NA-not applicable

1.9 Sensitivity

The samples were reported to the MDLs. No elevated non-detect results were reported.

1.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.2 Holding Time

The holding time for mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches 678094, 678396 and 680662). Mercury was not detected in the method blanks above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported, using sample HGWA-4. The recovery and RPD results were within the laboratory specified acceptance criteria.

Two batch MS/MSD pairs were reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank was collected with the sample set, EB-2. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank was collected with the sample set, FB-2. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-2. Acceptable precision (RPD $\leq$ 30%) was demonstrated between the field duplicate and the original sample, HGWC-15.

2.9 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for TDS by Standard method 2540C and anions by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The wet chemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this data set is 100%.

3.2 Holding Times

The holding time for the TDS analysis of a water sample is 7 days from sample collection to analysis. The holding time for the anions (chloride, fluoride, and sulfate) analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported for TDS (batches 677215, 677216, 678369, 678705 and 678707) and four method blanks were reported for the anions (batches 676561, 678309, 678880 and 679328). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported for anions, using sample HGWC-17. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exception.

The recoveries of sulfate in the MS/MSD pair using sample HGWC-17 were low and outside of the laboratory specified acceptance criteria. Since the sulfate concentration in sample HGWC-17 was greater than four times the spike concentration, no qualifications were applied to the data.

Seven batch MS/MSD pairs were reported for the anions. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported for TDS and four LCSs were reported for the anions. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for TDS, using samples HGWC-17. The RPD results were within the laboratory specified acceptance criteria.

Eight batch laboratory duplicates were reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank was collected with the sample set, EB-2. The wet chemistry parameters were not detected in the equipment blank above the MDL.

3.8 Field Blank

One field blank was collected with the sample set, FB-2. The wet chemistry parameters were not detected in the field blank above the MDL.

3.9 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-2. Acceptable precision (RPD $\leq$ 30%) was demonstrated between the field duplicate and the original sample, HGWC-15.

3.10 Sensitivity

The samples were reported to the MDLs for the anions and the RL for TDS. No elevated non-detect results were reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result".

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

Geosyntec consultants

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Memorandum

Date:	June 14, 2022
To:	Whitney Law
From:	Kristoffer Henderson
CC:	J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 92587304**

SITE: Plant Hammond AP-2

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twenty-two aqueous samples, one field duplicate, one field blank and one equipment blank, collected 1-10 February 2022, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, Pennsylvania, for the following analytical tests:

- Radium-226 by US EPA Method 9315
- Radium-228 by US EPA Method 9320
- Total Radium by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
92587304001	HGWA-4
92587304002	HGWA-5
92587304003	HGWA-6
92587304004	HGWA-42D
92587304005	HGWC-15
92587304006	HGWC-16
92587304007	HGWC-17
92587304008	HGWC-18
92587304009	MW-21D
92587304010	MW-22

Laboratory ID	Client ID
92587304011	MW-33
92587304012	MW-35
92587304013	MW-37D
92587304014	MW-51
92587304015	DUP-2
92587304022	HGWC-14
92587304023	MW-34D
92587304024	MW-23D
92587304025	EB-2
92587304026	FB-2

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

A collection time was not listed on the chain of custody (COC) for the field duplicate, DUP-2. The field duplicate was logged in with the collection time of 00:00.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by US EPA method 9315, radium-228 by US EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data set are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for the radium-228 data (batches 486656, 486660 and 488988). Two method blanks were reported for the radium-226 data (batches 486616 and 486611). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCS/LCS duplicate (LCSD) pairs were reported for radium-226. Three LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [1 sigma (1σ)] results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Two batch laboratory duplicates were reported for radium-226. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

One equipment blank was collected with the sample set, EB-2. Radium-226 and radium-228 were not detected in the equipment blank above the MDCs.

1.9 Field Blank

One field blank was collected with the sample set, FB-2. Radium-226 and Radium-228 were not detected in the field blank above the MDCs.

1.10 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-02. Acceptable precision (RER (1σ) < 3) was demonstrated between the field duplicate and the original sample, HGWC-16.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result".

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

FIELD SAMPLING REPORTS

Low-Flow Test Report:

Test Date / Time: 2/1/2022 11:33:37 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 22.50 ft** **Total Depth: 32.50 ft** **Initial Depth to Water: 13.42 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 27.50 ft** **Estimated Total Volume Pumped: 7.5 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.52 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 45 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/1/2022 11:33 AM	00:00	7.28 pH	18.61 °C	556.69 µS/cm	2.06 mg/L	12.50 NTU	1.6 mV	13.73 ft	200.00 ml/min
2/1/2022 11:38 AM	05:00	7.25 pH	17.05 °C	581.92 µS/cm	1.89 mg/L	5.43 NTU	6.0 mV	13.95 ft	200.00 ml/min
2/1/2022 11:43 AM	10:00	7.25 pH	17.41 °C	575.00 µS/cm	1.67 mg/L	3.36 NTU	6.3 mV	13.92 ft	200.00 ml/min
2/1/2022 11:48 AM	15:00	7.23 pH	17.54 °C	574.57 µS/cm	1.32 mg/L	4.09 NTU	3.3 mV	13.93 ft	200.00 ml/min
2/1/2022 11:53 AM	20:00	7.21 pH	17.45 °C	580.36 µS/cm	1.01 mg/L	2.91 NTU	4.7 mV	13.93 ft	200.00 ml/min
2/1/2022 11:58 AM	25:00	7.19 pH	17.23 °C	583.39 µS/cm	0.73 mg/L	2.07 NTU	0.7 mV	13.93 ft	200.00 ml/min
2/1/2022 12:03 PM	30:00	7.19 pH	17.55 °C	579.09 µS/cm	0.63 mg/L	3.05 NTU	1.4 mV	13.93 ft	200.00 ml/min
2/1/2022 12:08 PM	35:00	7.19 pH	17.41 °C	582.19 µS/cm	0.56 mg/L	0.40 NTU	-1.4 mV	13.94 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-1	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/1/2022 10:42:11 AM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWA-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.95 ft** **Total Depth: 27.95 ft** **Initial Depth to Water: 8.27 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 22.95 ft** **Estimated Total Volume Pumped: 14 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.14 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 45 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/1/2022 10:42 AM	00:00	5.14 pH	16.69 °C	232.20 µS/cm	0.63 mg/L	46.90 NTU	158.1 mV	8.34 ft	200.00 ml/min
2/1/2022 10:47 AM	05:00	5.15 pH	16.40 °C	192.80 µS/cm	0.75 mg/L	23.20 NTU	136.3 mV	8.35 ft	200.00 ml/min
2/1/2022 10:52 AM	10:00	5.13 pH	16.24 °C	231.06 µS/cm	0.48 mg/L	16.60 NTU	129.5 mV	8.35 ft	200.00 ml/min
2/1/2022 10:57 AM	15:00	5.17 pH	16.30 °C	224.16 µS/cm	0.43 mg/L	10.76 NTU	119.4 mV	8.37 ft	200.00 ml/min
2/1/2022 11:02 AM	20:00	5.17 pH	16.42 °C	233.37 µS/cm	0.42 mg/L	8.08 NTU	113.7 mV	8.37 ft	200.00 ml/min
2/1/2022 11:07 AM	25:00	5.19 pH	16.67 °C	234.45 µS/cm	0.56 mg/L	6.51 NTU	167.3 mV	8.37 ft	200.00 ml/min
2/1/2022 11:12 AM	30:00	5.20 pH	17.00 °C	192.38 µS/cm	0.43 mg/L	6.16 NTU	107.4 mV	8.40 ft	200.00 ml/min
2/1/2022 11:17 AM	35:00	5.19 pH	17.00 °C	149.79 µS/cm	0.39 mg/L	4.79 NTU	103.2 mV	8.40 ft	200.00 ml/min
2/1/2022 11:22 AM	40:00	5.24 pH	17.00 °C	231.77 µS/cm	0.43 mg/L	4.03 NTU	99.1 mV	8.40 ft	200.00 ml/min
2/1/2022 11:27 AM	45:00	5.23 pH	17.21 °C	234.14 µS/cm	0.45 mg/L	3.61 NTU	98.2 mV	8.41 ft	200.00 ml/min
2/1/2022 11:32 AM	50:00	5.24 pH	17.09 °C	199.83 µS/cm	0.51 mg/L	3.56 NTU	146.7 mV	8.41 ft	200.00 ml/min
2/1/2022 11:37 AM	55:00	5.22 pH	17.21 °C	234.19 µS/cm	0.52 mg/L	3.28 NTU	96.1 mV	8.41 ft	200.00 ml/min
2/1/2022 11:42 AM	01:00:00	5.24 pH	17.14 °C	233.68 µS/cm	0.46 mg/L	3.31 NTU	91.1 mV	8.41 ft	200.00 ml/min

2/1/2022 11:47 AM	01:05:00	5.24 pH	17.16 °C	235.29 µS/cm	0.48 mg/L	2.85 NTU	139.6 mV	8.41 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-2	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/1/2022 9:18:03 AM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWA-3 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 34.87 ft** **Total Depth: 44.87 ft** **Initial Depth to Water: 7.86 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 39.87 ft** **Estimated Total Volume Pumped: 8 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.02 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 31 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/1/2022 9:18 AM	00:00	7.43 pH	14.38 °C	462.35 µS/cm	2.13 mg/L	8.40 NTU	-60.5 mV	7.86 ft	200.00 ml/min
2/1/2022 9:23 AM	05:00	7.42 pH	15.95 °C	470.26 µS/cm	0.50 mg/L	2.62 NTU	-81.6 mV	7.86 ft	200.00 ml/min
2/1/2022 9:28 AM	10:00	7.43 pH	16.15 °C	463.71 µS/cm	0.88 mg/L	2.86 NTU	-85.7 mV	7.86 ft	200.00 ml/min
2/1/2022 9:33 AM	15:00	7.44 pH	16.11 °C	466.16 µS/cm	0.40 mg/L	2.63 NTU	-115.1 mV	7.88 ft	200.00 ml/min
2/1/2022 9:38 AM	20:00	7.44 pH	16.24 °C	504.38 µS/cm	0.50 mg/L	1.63 NTU	-93.6 mV	7.88 ft	200.00 ml/min
2/1/2022 9:43 AM	25:00	7.44 pH	16.24 °C	467.40 µS/cm	0.25 mg/L	0.72 NTU	-94.2 mV	7.88 ft	200.00 ml/min
2/1/2022 9:48 AM	30:00	7.44 pH	16.27 °C	467.09 µS/cm	0.31 mg/L	0.62 NTU	-94.7 mV	7.88 ft	200.00 ml/min
2/1/2022 9:53 AM	35:00	7.45 pH	16.38 °C	466.51 µS/cm	0.20 mg/L	0.68 NTU	-95.7 mV	7.88 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-3	Grab Sample.

Low-Flow Test Report:

Test Date / Time: 2/1/2022 9:43:27 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-43D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 51.25 ft** **Total Depth: 61.25 ft** **Initial Depth to Water: 13.34 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 56.25 ft** **Estimated Total Volume Pumped: 9 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 3.19 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/1/2022 9:43 AM	00:00	7.53 pH	16.74 °C	496.11 µS/cm	0.53 mg/L	8.09 NTU	-83.8 mV	15.27 ft	200.00 ml/min
2/1/2022 9:48 AM	05:00	7.51 pH	16.85 °C	499.11 µS/cm	0.42 mg/L	3.49 NTU	-119.9 mV	15.57 ft	200.00 ml/min
2/1/2022 9:53 AM	10:00	7.52 pH	16.92 °C	497.47 µS/cm	0.25 mg/L	0.92 NTU	-129.8 mV	15.94 ft	200.00 ml/min
2/1/2022 9:58 AM	15:00	7.53 pH	17.03 °C	489.27 µS/cm	0.18 mg/L	1.95 NTU	-109.8 mV	16.24 ft	200.00 ml/min
2/1/2022 10:03 AM	20:00	7.53 pH	17.01 °C	481.27 µS/cm	0.15 mg/L	0.29 NTU	-136.5 mV	16.41 ft	200.00 ml/min
2/1/2022 10:08 AM	24:37	7.53 pH	17.10 °C	474.80 µS/cm	0.13 mg/L	0.03 NTU	-136.8 mV	16.52 ft	200.00 ml/min
2/1/2022 10:13 AM	29:37	7.53 pH	17.22 °C	469.54 µS/cm	0.12 mg/L	1.72 NTU	-110.6 mV	16.59 ft	200.00 ml/min
2/1/2022 10:18 AM	34:37	7.52 pH	17.32 °C	465.38 µS/cm	0.12 mg/L	1.59 NTU	-108.8 mV	16.63 ft	200.00 ml/min
2/1/2022 10:23 AM	39:37	7.52 pH	17.27 °C	463.05 µS/cm	0.11 mg/L	1.63 NTU	-107.5 mV	16.53 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-43D	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/1/2022 9:53:41 AM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: HGWA-44D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 103.28 ft** **Total Depth: 113.28 ft** **Initial Depth to Water: 13.34 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 108.28 ft** **Estimated Total Volume Pumped: 26 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min Final Draw Down: 1.20 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 32 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/1/2022 9:53 AM	00:00	8.03 pH	15.77 °C	788.25 µS/cm	2.41 mg/L	40.40 NTU	-1.7 mV	11.50 ft	200.00 ml/min
2/1/2022 9:58 AM	05:00	8.07 pH	16.24 °C	793.68 µS/cm	6.43 mg/L	30.50 NTU	-10.9 mV	11.85 ft	200.00 ml/min
2/1/2022 10:03 AM	10:00	8.11 pH	16.20 °C	798.19 µS/cm	8.19 mg/L	23.90 NTU	-10.3 mV	12.40 ft	200.00 ml/min
2/1/2022 10:08 AM	15:00	8.13 pH	16.28 °C	800.71 µS/cm	10.64 mg/L	24.30 NTU	-12.4 mV	12.62 ft	200.00 ml/min
2/1/2022 10:13 AM	20:00	8.14 pH	16.46 °C	799.34 µS/cm	12.75 mg/L	18.80 NTU	-11.7 mV	12.90 ft	200.00 ml/min
2/1/2022 10:18 AM	25:00	8.15 pH	16.72 °C	797.19 µS/cm	11.61 mg/L	17.60 NTU	-11.2 mV	13.05 ft	200.00 ml/min
2/1/2022 10:23 AM	30:00	8.16 pH	16.82 °C	795.06 µS/cm	11.42 mg/L	16.70 NTU	-11.0 mV	13.10 ft	200.00 ml/min
2/1/2022 10:28 AM	35:00	8.17 pH	16.28 °C	804.14 µS/cm	12.45 mg/L	16.60 NTU	-13.9 mV	13.30 ft	200.00 ml/min
2/1/2022 10:33 AM	40:00	8.18 pH	16.41 °C	801.48 µS/cm	12.08 mg/L	14.20 NTU	-13.6 mV	13.60 ft	100.00 ml/min
2/1/2022 10:38 AM	45:00	8.19 pH	16.45 °C	804.07 µS/cm	11.86 mg/L	14.00 NTU	-14.6 mV	13.60 ft	100.00 ml/min
2/1/2022 10:43 AM	50:00	8.20 pH	16.46 °C	804.80 µS/cm	11.98 mg/L	16.10 NTU	-16.6 mV	13.65 ft	100.00 ml/min
2/1/2022 10:48 AM	55:00	8.21 pH	16.60 °C	803.09 µS/cm	12.00 mg/L	18.90 NTU	-16.9 mV	13.70 ft	100.00 ml/min
2/1/2022 10:53 AM	01:00:00	8.21 pH	16.72 °C	803.58 µS/cm	12.70 mg/L	16.30 NTU	-17.0 mV	13.75 ft	100.00 ml/min

2/1/2022 10:58 AM	01:05:00	8.21 pH	16.82 °C	802.58 µS/cm	12.73 mg/L	20.00 NTU	-14.3 mV	13.90 ft	100.00 ml/min
2/1/2022 11:03 AM	01:10:00	8.23 pH	16.73 °C	806.13 µS/cm	12.61 mg/L	24.90 NTU	-15.9 mV	14.00 ft	100.00 ml/min
2/1/2022 11:08 AM	01:15:00	8.23 pH	16.82 °C	799.63 µS/cm	12.22 mg/L	15.60 NTU	-12.5 mV	14.10 ft	100.00 ml/min
2/1/2022 11:13 AM	01:20:00	8.23 pH	16.60 °C	803.48 µS/cm	12.18 mg/L	15.20 NTU	-11.4 mV	14.15 ft	100.00 ml/min
2/1/2022 11:18 AM	01:25:00	8.23 pH	16.84 °C	803.65 µS/cm	12.11 mg/L	11.70 NTU	-11.5 mV	14.23 ft	100.00 ml/min
2/1/2022 11:23 AM	01:30:00	8.23 pH	17.08 °C	801.82 µS/cm	12.10 mg/L	11.60 NTU	-12.9 mV	14.35 ft	100.00 ml/min
2/1/2022 11:28 AM	01:35:00	8.24 pH	17.10 °C	800.28 µS/cm	12.06 mg/L	9.96 NTU	-10.9 mV	14.35 ft	100.00 ml/min
2/1/2022 11:33 AM	01:40:00	8.24 pH	16.98 °C	802.78 µS/cm	12.20 mg/L	8.43 NTU	-10.7 mV	14.35 ft	100.00 ml/min
2/1/2022 11:38 AM	01:45:00	8.25 pH	16.55 °C	807.34 µS/cm	12.65 mg/L	8.17 NTU	-10.4 mV	14.40 ft	100.00 ml/min
2/1/2022 11:43 AM	01:50:00	8.25 pH	16.35 °C	809.51 µS/cm	12.60 mg/L	8.27 NTU	-11.9 mV	14.50 ft	100.00 ml/min
2/1/2022 11:48 AM	01:55:00	8.25 pH	16.28 °C	809.68 µS/cm	12.89 mg/L	7.64 NTU	-10.6 mV	14.50 ft	100.00 ml/min
2/1/2022 11:53 AM	02:00:00	8.25 pH	16.23 °C	811.81 µS/cm	12.86 mg/L	7.36 NTU	-10.5 mV	14.50 ft	100.00 ml/min
2/1/2022 11:58 AM	02:05:00	8.25 pH	16.20 °C	811.57 µS/cm	12.90 mg/L	6.17 NTU	-11.8 mV	14.50 ft	100.00 ml/min
2/1/2022 12:03 PM	02:10:00	8.26 pH	16.22 °C	810.30 µS/cm	12.71 mg/L	5.74 NTU	-10.5 mV	14.51 ft	100.00 ml/min
2/1/2022 12:08 PM	02:15:00	8.26 pH	16.19 °C	812.80 µS/cm	12.90 mg/L	5.76 NTU	-12.1 mV	14.51 ft	100.00 ml/min
2/1/2022 12:13 PM	02:20:00	8.26 pH	16.16 °C	812.48 µS/cm	12.88 mg/L	5.35 NTU	-12.2 mV	14.52 ft	100.00 ml/min
2/1/2022 12:18 PM	02:25:00	8.26 pH	16.22 °C	811.47 µS/cm	12.87 mg/L	5.23 NTU	-12.5 mV	14.52 ft	100.00 ml/min
2/1/2022 12:23 PM	02:30:00	8.27 pH	16.24 °C	812.48 µS/cm	12.75 mg/L	7.30 NTU	-12.6 mV	14.53 ft	100.00 ml/min
2/1/2022 12:28 PM	02:35:00	8.27 pH	16.33 °C	810.61 µS/cm	12.74 mg/L	6.77 NTU	-11.4 mV	14.54 ft	100.00 ml/min
2/1/2022 12:33 PM	02:40:00	8.27 pH	16.32 °C	812.17 µS/cm	12.75 mg/L	6.80 NTU	-11.4 mV	14.54 ft	100.00 ml/min
2/1/2022 12:38 PM	02:45:00	8.27 pH	16.39 °C	809.86 µS/cm	12.75 mg/L	6.52 NTU	-11.5 mV	14.54 ft	100.00 ml/min
2/1/2022 12:43 PM	02:50:00	8.27 pH	16.48 °C	810.57 µS/cm	12.73 mg/L	6.00 NTU	-12.1 mV	14.54 ft	100.00 ml/min
2/1/2022 12:47 PM	02:53:59	8.27 pH	16.46 °C	809.23 µS/cm	13.38 mg/L	6.75 NTU	-9.9 mV	14.54 ft	100.00 ml/min
2/1/2022 12:52 PM	02:58:59	8.27 pH	16.51 °C	796.69 µS/cm	12.96 mg/L	6.30 NTU	-13.0 mV	14.54 ft	100.00 ml/min
2/1/2022 12:57 PM	03:03:59	8.27 pH	16.44 °C	808.16 µS/cm	12.86 mg/L	6.41 NTU	-14.2 mV	14.54 ft	100.00 ml/min
2/1/2022 1:01 PM	03:07:44	8.26 pH	16.49 °C	782.67 µS/cm	13.44 mg/L	5.53 NTU	-13.9 mV	14.54 ft	100.00 ml/min
2/1/2022 1:06 PM	03:12:44	8.26 pH	16.49 °C	796.34 µS/cm	13.14 mg/L	13.70 NTU	-15.4 mV	14.54 ft	100.00 ml/min
2/1/2022 1:11 PM	03:17:44	8.26 pH	16.46 °C	806.69 µS/cm	12.44 mg/L	4.35 NTU	-18.4 mV	14.54 ft	100.00 ml/min
2/1/2022 1:16 PM	03:22:44	8.26 pH	16.55 °C	800.04 µS/cm	12.24 mg/L	4.36 NTU	-17.6 mV	14.54 ft	100.00 ml/min

2/1/2022 1:21 PM	03:27:44	8.26 pH	16.57 °C	799.46 µS/cm	12.26 mg/L	4.20 NTU	-18.6 mV	14.54 ft	100.00 ml/min
2/1/2022 1:26 PM	03:32:44	8.25 pH	16.83 °C	795.30 µS/cm	12.14 mg/L	4.25 NTU	-20.8 mV	14.54 ft	100.00 ml/min

Samples

Sample ID:	Description:
HGWA-44D	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/7/2022 1:43:10 PM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWA-4 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.8 ft** **Total Depth: 25.8 ft** **Initial Depth to Water: 4.97 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 20.80 ft** **Estimated Total Volume Pumped: 9 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.24 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Cloudy, 47 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/7/2022 1:43 PM	00:00	5.16 pH	15.24 °C	69.88 µS/cm	2.71 mg/L	7.00 NTU	142.6 mV	4.97 ft	200.00 ml/min
2/7/2022 1:48 PM	05:00	5.17 pH	15.66 °C	71.11 µS/cm	2.59 mg/L	6.97 NTU	174.9 mV	5.21 ft	200.00 ml/min
2/7/2022 1:53 PM	10:00	5.10 pH	15.68 °C	71.19 µS/cm	2.31 mg/L	6.91 NTU	106.3 mV	5.21 ft	200.00 ml/min
2/7/2022 1:58 PM	15:00	5.17 pH	15.84 °C	72.17 µS/cm	2.18 mg/L	6.39 NTU	153.6 mV	5.21 ft	200.00 ml/min
2/7/2022 2:03 PM	20:00	5.19 pH	15.83 °C	72.04 µS/cm	2.13 mg/L	5.85 NTU	92.8 mV	5.21 ft	200.00 ml/min
2/7/2022 2:08 PM	25:00	5.20 pH	15.84 °C	73.18 µS/cm	2.14 mg/L	5.47 NTU	90.4 mV	5.21 ft	200.00 ml/min
2/7/2022 2:13 PM	30:00	5.18 pH	15.82 °C	73.53 µS/cm	2.09 mg/L	5.14 NTU	143.0 mV	5.21 ft	200.00 ml/min
2/7/2022 2:18 PM	35:00	5.22 pH	15.80 °C	74.30 µS/cm	2.14 mg/L	5.11 NTU	85.3 mV	5.21 ft	200.00 ml/min
2/7/2022 2:23 PM	40:00	5.24 pH	15.98 °C	74.33 µS/cm	2.17 mg/L	4.92 NTU	83.6 mV	5.21 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-4	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/7/2022 3:21:07 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-5 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.95 ft** **Total Depth: 27.95 ft** **Initial Depth to Water: 3.98 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 22.95 ft** **Estimated Total Volume Pumped: 18 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 1.14 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/7/2022 3:21 PM	00:00	6.40 pH	15.93 °C	168.42 µS/cm	2.96 mg/L	14.20 NTU	85.1 mV	4.37 ft	200.00 ml/min
2/7/2022 3:26 PM	05:00	6.40 pH	15.89 °C	178.86 µS/cm	2.00 mg/L	9.41 NTU	61.4 mV	4.52 ft	200.00 ml/min
2/7/2022 3:31 PM	10:00	6.45 pH	15.84 °C	185.96 µS/cm	1.30 mg/L	8.63 NTU	60.8 mV	4.61 ft	200.00 ml/min
2/7/2022 3:36 PM	15:00	6.45 pH	15.85 °C	188.21 µS/cm	0.99 mg/L	8.92 NTU	43.4 mV	4.71 ft	200.00 ml/min
2/7/2022 3:41 PM	20:00	6.44 pH	15.98 °C	189.29 µS/cm	0.75 mg/L	8.14 NTU	43.7 mV	4.77 ft	200.00 ml/min
2/7/2022 3:46 PM	25:00	6.45 pH	15.89 °C	190.00 µS/cm	0.66 mg/L	7.83 NTU	34.4 mV	4.83 ft	200.00 ml/min
2/7/2022 3:51 PM	30:00	6.46 pH	15.89 °C	192.78 µS/cm	0.55 mg/L	7.66 NTU	37.3 mV	4.89 ft	200.00 ml/min
2/7/2022 3:56 PM	35:00	6.46 pH	15.89 °C	194.13 µS/cm	0.47 mg/L	7.58 NTU	31.6 mV	4.94 ft	200.00 ml/min
2/7/2022 4:01 PM	40:00	6.47 pH	15.95 °C	197.27 µS/cm	0.42 mg/L	7.58 NTU	29.9 mV	4.98 ft	200.00 ml/min
2/7/2022 4:06 PM	45:00	6.48 pH	15.98 °C	197.09 µS/cm	0.42 mg/L	7.13 NTU	29.9 mV	5.00 ft	200.00 ml/min
2/7/2022 4:11 PM	50:00	6.48 pH	15.93 °C	198.76 µS/cm	0.39 mg/L	6.76 NTU	26.5 mV	5.03 ft	200.00 ml/min
2/7/2022 4:16 PM	55:00	6.49 pH	15.98 °C	201.28 µS/cm	0.34 mg/L	6.90 NTU	25.6 mV	5.03 ft	200.00 ml/min
2/7/2022 4:21 PM	01:00:00	6.49 pH	16.03 °C	201.10 µS/cm	0.33 mg/L	6.69 NTU	25.4 mV	5.07 ft	200.00 ml/min

2/7/2022 4:26 PM	01:05:00	6.49 pH	16.11 °C	202.96 µS/cm	0.31 mg/L	6.34 NTU	24.2 mV	5.07 ft	200.00 ml/min
2/7/2022 4:31 PM	01:10:00	6.49 pH	16.20 °C	202.58 µS/cm	0.29 mg/L	5.33 NTU	25.4 mV	5.08 ft	200.00 ml/min
2/7/2022 4:36 PM	01:15:00	6.50 pH	16.54 °C	201.00 µS/cm	0.31 mg/L	5.10 NTU	26.3 mV	5.11 ft	200.00 ml/min
2/7/2022 4:41 PM	01:20:00	6.50 pH	16.60 °C	203.53 µS/cm	0.27 mg/L	5.03 NTU	24.4 mV	5.12 ft	200.00 ml/min
2/7/2022 4:46 PM	01:25:00	6.51 pH	16.59 °C	206.86 µS/cm	0.24 mg/L	4.95 NTU	21.4 mV	5.12 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-5	Grab sample

Low-Flow Test Report:

Test Date / Time: 2/7/2022 3:31:16 PM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWA-6 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 40.52 ft** **Total Depth: 50.52 ft** **Initial Depth to Water: 3.39 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 45.52 ft** **Estimated Total Volume Pumped: 12 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 1.77 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Cloudy, 47 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/7/2022 3:31 PM	00:00	7.24 pH	16.57 °C	379.10 µS/cm	4.30 mg/L	1.71 NTU	-68.9 mV	3.81 ft	200.00 ml/min
2/7/2022 3:36 PM	05:00	7.49 pH	15.93 °C	274.84 µS/cm	1.32 mg/L	5.50 NTU	-112.3 mV	4.38 ft	200.00 ml/min
2/7/2022 3:41 PM	10:00	7.61 pH	16.11 °C	377.65 µS/cm	1.92 mg/L	2.73 NTU	-104.0 mV	4.80 ft	200.00 ml/min
2/7/2022 3:46 PM	15:00	7.65 pH	16.06 °C	377.78 µS/cm	1.82 mg/L	1.29 NTU	-104.2 mV	4.93 ft	200.00 ml/min
2/7/2022 3:51 PM	20:00	7.63 pH	16.11 °C	378.70 µS/cm	1.29 mg/L	1.71 NTU	-109.7 mV	5.12 ft	200.00 ml/min
2/7/2022 3:56 PM	25:00	7.65 pH	16.16 °C	393.46 µS/cm	1.23 mg/L	1.50 NTU	-119.0 mV	5.12 ft	200.00 ml/min
2/7/2022 4:01 PM	30:00	7.65 pH	16.19 °C	378.51 µS/cm	0.93 mg/L	1.57 NTU	-121.9 mV	5.12 ft	200.00 ml/min
2/7/2022 4:06 PM	35:00	7.65 pH	16.23 °C	378.89 µS/cm	0.66 mg/L	1.35 NTU	-124.9 mV	5.16 ft	200.00 ml/min
2/7/2022 4:11 PM	40:00	7.63 pH	16.19 °C	378.94 µS/cm	0.87 mg/L	1.14 NTU	-124.1 mV	5.16 ft	200.00 ml/min
2/7/2022 4:16 PM	45:00	7.65 pH	16.22 °C	383.98 µS/cm	0.74 mg/L	1.33 NTU	-125.4 mV	5.16 ft	200.00 ml/min
2/7/2022 4:21 PM	50:00	7.65 pH	16.24 °C	378.11 µS/cm	0.63 mg/L	1.54 NTU	-126.2 mV	5.16 ft	200.00 ml/min
2/7/2022 4:26 PM	55:00	7.65 pH	16.33 °C	378.16 µS/cm	0.80 mg/L	1.24 NTU	-124.9 mV	5.16 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-6	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/7/2022 3:19:42 PM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: HGWA-42D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 58.03 ft** **Total Depth: 68.03 ft** **Initial Depth to Water: 9.6 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 63.03 ft** **Estimated Total Volume Pumped: 6.3 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min Final Draw Down: 1.95 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/7/2022 3:19 PM	00:00	7.72 pH	17.59 °C	280.45 µS/cm	1.64 mg/L	3.00 NTU	-41.4 mV	9.60 ft	200.00 ml/min
2/7/2022 3:22 PM	02:39	7.81 pH	17.19 °C	289.70 µS/cm	0.52 mg/L	2.85 NTU	-106.3 mV	10.63 ft	200.00 ml/min
2/7/2022 3:27 PM	07:39	7.84 pH	17.63 °C	278.62 µS/cm	0.20 mg/L	2.91 NTU	-95.7 mV	11.00 ft	200.00 ml/min
2/7/2022 3:32 PM	12:39	7.83 pH	17.38 °C	279.18 µS/cm	0.16 mg/L	1.52 NTU	-115.5 mV	11.32 ft	200.00 ml/min
2/7/2022 3:37 PM	17:39	7.82 pH	17.46 °C	280.28 µS/cm	0.16 mg/L	0.75 NTU	-117.6 mV	11.43 ft	200.00 ml/min
2/7/2022 3:42 PM	22:39	7.83 pH	17.49 °C	280.20 µS/cm	0.15 mg/L	1.70 NTU	-102.5 mV	11.45 ft	200.00 ml/min
2/7/2022 3:47 PM	27:39	7.84 pH	17.48 °C	281.36 µS/cm	0.16 mg/L	0.93 NTU	-122.2 mV	11.50 ft	200.00 ml/min
2/7/2022 3:52 PM	32:39	7.85 pH	17.63 °C	281.33 µS/cm	0.16 mg/L	1.06 NTU	-105.7 mV	11.55 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-42D	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/9/2022 2:48:13 PM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: HGWC-14 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 33.00 ft** **Total Depth: 43.00 ft** **Initial Depth to Water: 24.45 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 38 ft** **Estimated Total Volume Pumped: 3 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min Final Draw Down: 0.04 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/9/2022 2:48 PM	00:00	5.14 pH	20.79 °C	2,578.3 µS/cm	1.52 mg/L	3.41 NTU	9.1 mV	24.45 ft	100.00 ml/min
2/9/2022 2:53 PM	05:00	5.11 pH	20.73 °C	2,595.3 µS/cm	1.40 mg/L	2.41 NTU	4.8 mV	24.49 ft	100.00 ml/min
2/9/2022 2:58 PM	10:00	5.09 pH	20.82 °C	2,560.7 µS/cm	1.55 mg/L	3.33 NTU	2.0 mV	24.49 ft	100.00 ml/min
2/9/2022 3:03 PM	15:00	5.06 pH	20.84 °C	2,558.6 µS/cm	1.49 mg/L	2.73 NTU	4.3 mV	24.49 ft	100.00 ml/min
2/9/2022 3:08 PM	20:00	5.03 pH	20.53 °C	2,559.2 µS/cm	1.57 mg/L	4.41 NTU	5.2 mV	24.49 ft	100.00 ml/min
2/9/2022 3:13 PM	25:00	4.99 pH	20.73 °C	2,561.7 µS/cm	1.59 mg/L	4.19 NTU	4.0 mV	24.49 ft	100.00 ml/min
2/9/2022 3:18 PM	30:00	4.97 pH	20.75 °C	2,555.1 µS/cm	1.53 mg/L	3.18 NTU	6.6 mV	24.49 ft	100.00 ml/min

Samples

Sample ID:	Description:
HGWC-14	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 1:14:21 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-15 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 28 ft** **Total Depth: 38 ft** **Initial Depth to Water: 9.98 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 33 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.45 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 1:14 PM	00:00	6.14 pH	17.09 °C	1,122.1 µS/cm	0.54 mg/L	1.20 NTU	99.1 mV	10.43 ft	200.00 ml/min
2/8/2022 1:19 PM	05:00	6.07 pH	17.36 °C	1,099.5 µS/cm	0.36 mg/L	1.46 NTU	116.4 mV	10.44 ft	200.00 ml/min
2/8/2022 1:24 PM	10:00	6.06 pH	17.38 °C	1,089.5 µS/cm	0.40 mg/L	1.59 NTU	114.9 mV	10.43 ft	200.00 ml/min
2/8/2022 1:29 PM	15:00	6.06 pH	17.47 °C	1,094.1 µS/cm	0.60 mg/L	1.24 NTU	115.5 mV	10.43 ft	200.00 ml/min
2/8/2022 1:34 PM	20:00	6.08 pH	17.54 °C	1,090.7 µS/cm	0.77 mg/L	1.52 NTU	119.0 mV	10.43 ft	200.00 ml/min
2/8/2022 1:39 PM	25:00	6.07 pH	17.56 °C	1,069.9 µS/cm	0.83 mg/L	1.35 NTU	89.1 mV	10.43 ft	200.00 ml/min
2/8/2022 1:44 PM	30:00	6.04 pH	17.34 °C	1,081.7 µS/cm	0.74 mg/L	1.40 NTU	121.0 mV	10.43 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-15	Grab sample
DUP-2	Grab sample

Low-Flow Test Report:

Test Date / Time: 2/8/2022 11:34:09 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-16 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 23.1 ft** **Total Depth: 33.1 ft** **Initial Depth to Water: 7.72 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 28.1 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.68 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 45 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 11:34 AM	00:00	7.11 pH	17.14 °C	1,097.0 µS/cm	0.83 mg/L	3.32 NTU	-59.0 mV	8.32 ft	200.00 ml/min
2/8/2022 11:39 AM	05:00	7.14 pH	17.60 °C	1,097.8 µS/cm	0.24 mg/L	2.78 NTU	-64.9 mV	8.32 ft	200.00 ml/min
2/8/2022 11:44 AM	10:00	7.15 pH	17.73 °C	1,072.8 µS/cm	0.18 mg/L	0.95 NTU	-82.5 mV	8.35 ft	200.00 ml/min
2/8/2022 11:49 AM	15:00	7.17 pH	17.79 °C	1,069.3 µS/cm	0.13 mg/L	1.17 NTU	-73.8 mV	8.40 ft	200.00 ml/min
2/8/2022 11:54 AM	20:00	7.17 pH	17.77 °C	1,074.0 µS/cm	0.12 mg/L	0.87 NTU	-75.0 mV	8.43 ft	200.00 ml/min
2/8/2022 11:59 AM	25:00	7.18 pH	18.03 °C	1,069.5 µS/cm	0.10 mg/L	1.08 NTU	-89.1 mV	8.43 ft	200.00 ml/min
2/8/2022 12:04 PM	30:00	7.18 pH	17.92 °C	1,069.2 µS/cm	0.10 mg/L	1.02 NTU	-75.2 mV	8.40 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-16	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 9:28:44 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-17 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.8 ft** **Total Depth: 27.8 ft** **Initial Depth to Water: 13.1 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 22.8 ft** **Estimated Total Volume Pumped: 13 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.36 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 35 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 9:28 AM	00:00	6.50 pH	14.58 °C	1,414.4 µS/cm	3.24 mg/L	16.20 NTU	283.8 mV	13.32 ft	200.00 ml/min
2/8/2022 9:33 AM	05:00	6.43 pH	16.80 °C	1,362.0 µS/cm	2.00 mg/L	18.50 NTU	414.4 mV	13.43 ft	200.00 ml/min
2/8/2022 9:38 AM	10:00	6.43 pH	17.02 °C	1,350.7 µS/cm	1.29 mg/L	17.30 NTU	362.6 mV	13.42 ft	200.00 ml/min
2/8/2022 9:43 AM	15:00	6.42 pH	17.17 °C	1,344.8 µS/cm	0.85 mg/L	12.70 NTU	275.6 mV	13.46 ft	200.00 ml/min
2/8/2022 9:48 AM	20:00	6.42 pH	17.23 °C	1,336.3 µS/cm	0.61 mg/L	13.19 NTU	151.3 mV	13.45 ft	200.00 ml/min
2/8/2022 9:53 AM	25:00	6.42 pH	17.32 °C	1,339.4 µS/cm	0.47 mg/L	11.88 NTU	164.3 mV	13.46 ft	200.00 ml/min
2/8/2022 9:58 AM	30:00	6.42 pH	17.38 °C	1,329.4 µS/cm	0.38 mg/L	9.33 NTU	108.1 mV	13.45 ft	200.00 ml/min
2/8/2022 10:03 AM	35:00	6.42 pH	17.48 °C	1,343.8 µS/cm	0.31 mg/L	8.72 NTU	127.1 mV	13.47 ft	200.00 ml/min
2/8/2022 10:08 AM	40:00	6.42 pH	17.46 °C	1,346.1 µS/cm	0.26 mg/L	7.26 NTU	120.0 mV	13.45 ft	200.00 ml/min
2/8/2022 10:13 AM	45:00	6.42 pH	17.63 °C	1,339.3 µS/cm	0.23 mg/L	6.37 NTU	84.7 mV	13.46 ft	200.00 ml/min
2/8/2022 10:18 AM	50:00	6.42 pH	17.63 °C	1,346.1 µS/cm	0.21 mg/L	5.50 NTU	105.2 mV	13.47 ft	200.00 ml/min
2/8/2022 10:23 AM	55:00	6.42 pH	17.73 °C	1,345.3 µS/cm	0.19 mg/L	5.09 NTU	77.0 mV	13.46 ft	200.00 ml/min
2/8/2022 10:28 AM	01:00:00	6.42 pH	17.79 °C	1,351.9 µS/cm	0.18 mg/L	4.92 NTU	97.5 mV	13.46 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-17	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 3:05:17 PM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWC-18 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.8 ft** **Total Depth: 27.8 ft** **Initial Depth to Water: 13.05 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 22.80 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.18 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 60 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 3:05 PM	00:00	4.65 pH	18.28 °C	1,932.7 µS/cm	1.07 mg/L	2.50 NTU	170.1 mV	13.19 ft	200.00 ml/min
2/8/2022 3:10 PM	05:00	4.62 pH	17.42 °C	1,954.3 µS/cm	1.52 mg/L	0.97 NTU	167.0 mV	13.21 ft	200.00 ml/min
2/8/2022 3:15 PM	10:00	4.61 pH	17.34 °C	2,013.0 µS/cm	1.22 mg/L	0.71 NTU	166.4 mV	13.21 ft	200.00 ml/min
2/8/2022 3:20 PM	15:00	4.60 pH	17.23 °C	1,924.4 µS/cm	1.25 mg/L	0.70 NTU	166.7 mV	13.22 ft	200.00 ml/min
2/8/2022 3:25 PM	20:00	4.59 pH	17.30 °C	1,911.6 µS/cm	1.38 mg/L	0.61 NTU	165.9 mV	13.23 ft	200.00 ml/min
2/8/2022 3:30 PM	25:00	4.59 pH	16.87 °C	1,994.5 µS/cm	1.25 mg/L	0.61 NTU	223.4 mV	13.23 ft	200.00 ml/min
2/8/2022 3:35 PM	30:00	4.59 pH	16.80 °C	1,951.5 µS/cm	1.37 mg/L	0.94 NTU	165.8 mV	13.23 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-18	Grab Sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 1:15:21 PM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: MW-21D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 41.80 ft** **Total Depth: 51.80 ft** **Initial Depth to Water: 12.53 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 46.80 ft** **Estimated Total Volume Pumped: 15 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.38 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 54 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 1:15 PM	00:00	7.09 pH	17.41 °C	2,175.6 µS/cm	0.88 mg/L	27.20 NTU	-161.7 mV	12.84 ft	200.00 ml/min
2/8/2022 1:20 PM	05:00	7.08 pH	17.46 °C	2,204.4 µS/cm	0.49 mg/L	44.80 NTU	-149.3 mV	12.86 ft	200.00 ml/min
2/8/2022 1:25 PM	10:00	7.09 pH	17.51 °C	2,213.3 µS/cm	0.37 mg/L	56.20 NTU	-145.6 mV	12.86 ft	200.00 ml/min
2/8/2022 1:30 PM	15:00	7.08 pH	17.57 °C	2,209.9 µS/cm	0.32 mg/L	39.90 NTU	-141.7 mV	12.87 ft	200.00 ml/min
2/8/2022 1:35 PM	20:00	7.09 pH	17.55 °C	2,310.2 µS/cm	0.33 mg/L	29.70 NTU	-151.4 mV	12.87 ft	200.00 ml/min
2/8/2022 1:40 PM	25:00	7.09 pH	17.63 °C	2,167.8 µS/cm	0.31 mg/L	27.40 NTU	-136.4 mV	12.87 ft	200.00 ml/min
2/8/2022 1:45 PM	30:00	7.09 pH	17.67 °C	2,152.4 µS/cm	0.26 mg/L	22.00 NTU	-135.1 mV	12.91 ft	200.00 ml/min
2/8/2022 1:50 PM	35:00	7.09 pH	17.66 °C	2,141.8 µS/cm	0.28 mg/L	18.30 NTU	-132.0 mV	12.91 ft	200.00 ml/min
2/8/2022 1:55 PM	40:00	7.08 pH	17.63 °C	2,163.0 µS/cm	0.36 mg/L	12.91 NTU	-130.8 mV	12.91 ft	200.00 ml/min
2/8/2022 2:00 PM	45:00	7.09 pH	17.63 °C	2,114.4 µS/cm	0.26 mg/L	12.70 NTU	-141.5 mV	12.91 ft	200.00 ml/min
2/8/2022 2:05 PM	50:00	7.09 pH	17.72 °C	2,111.4 µS/cm	0.27 mg/L	12.47 NTU	-128.6 mV	12.91 ft	200.00 ml/min
2/8/2022 2:10 PM	55:00	7.08 pH	17.72 °C	2,108.4 µS/cm	0.27 mg/L	12.07 NTU	-127.2 mV	12.91 ft	200.00 ml/min
2/8/2022 2:15 PM	01:00:00	7.08 pH	17.76 °C	2,105.6 µS/cm	0.28 mg/L	6.97 NTU	-126.0 mV	12.91 ft	200.00 ml/min

2/8/2022 2:20 PM	01:05:00	7.08 pH	17.76 °C	2,099.5 µS/cm	0.30 mg/L	5.51 NTU	-125.0 mV	12.91 ft	200.00 ml/min
2/8/2022 2:25 PM	01:10:00	7.09 pH	17.80 °C	2,096.0 µS/cm	0.33 mg/L	4.74 NTU	-124.4 mV	12.91 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW-21D	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 3:34:03 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: MW-22 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 27.58 ft** **Total Depth: 37.58 ft** **Initial Depth to Water: 7.20 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 32.58 ft** **Estimated Total Volume Pumped: 8.5 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 5.32 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 3:34 PM	00:00	5.37 pH	16.38 °C	1,252.7 µS/cm	3.87 mg/L	4.03 NTU	213.0 mV	8.18 ft	100.00 ml/min
2/8/2022 3:39 PM	05:00	5.34 pH	16.51 °C	1,236.2 µS/cm	3.73 mg/L	7.98 NTU	229.7 mV	8.61 ft	100.00 ml/min
2/8/2022 3:44 PM	10:00	5.33 pH	16.65 °C	1,241.0 µS/cm	3.75 mg/L	7.16 NTU	371.4 mV	9.11 ft	100.00 ml/min
2/8/2022 3:49 PM	15:00	5.32 pH	16.83 °C	1,238.2 µS/cm	3.73 mg/L	5.12 NTU	422.8 mV	9.52 ft	100.00 ml/min
2/8/2022 3:54 PM	20:00	5.32 pH	16.92 °C	1,236.4 µS/cm	3.67 mg/L	4.38 NTU	445.3 mV	9.87 ft	100.00 ml/min
2/8/2022 3:59 PM	25:00	5.32 pH	16.92 °C	1,232.6 µS/cm	3.57 mg/L	3.61 NTU	454.2 mV	10.21 ft	100.00 ml/min
2/8/2022 4:04 PM	30:00	5.33 pH	16.83 °C	1,224.4 µS/cm	3.42 mg/L	2.89 NTU	330.0 mV	10.48 ft	100.00 ml/min
2/8/2022 4:09 PM	35:00	5.33 pH	16.92 °C	1,235.3 µS/cm	3.28 mg/L	3.06 NTU	455.2 mV	10.80 ft	100.00 ml/min
2/8/2022 4:14 PM	40:00	5.34 pH	16.87 °C	1,222.8 µS/cm	3.14 mg/L	2.75 NTU	332.9 mV	11.03 ft	100.00 ml/min
2/8/2022 4:19 PM	45:00	5.34 pH	16.86 °C	1,235.6 µS/cm	3.00 mg/L	2.90 NTU	449.1 mV	11.26 ft	100.00 ml/min
2/8/2022 4:24 PM	50:00	5.35 pH	16.90 °C	1,224.8 µS/cm	2.86 mg/L	2.93 NTU	326.4 mV	11.48 ft	100.00 ml/min
2/8/2022 4:29 PM	55:00	5.34 pH	16.96 °C	1,236.5 µS/cm	2.73 mg/L	2.52 NTU	442.9 mV	11.68 ft	100.00 ml/min
2/8/2022 4:34 PM	01:00:00	5.35 pH	16.92 °C	1,235.6 µS/cm	2.60 mg/L	3.08 NTU	451.7 mV	11.88 ft	100.00 ml/min

2/8/2022 4:39 PM	01:05:00	5.36 pH	16.69 °C	1,228.3 µS/cm	2.49 mg/L	2.58 NTU	320.6 mV	12.07 ft	100.00 ml/min
2/8/2022 4:44 PM	01:10:00	5.36 pH	16.72 °C	1,238.8 µS/cm	2.39 mg/L	2.86 NTU	423.4 mV	12.23 ft	100.00 ml/min
2/8/2022 4:49 PM	01:15:00	5.36 pH	16.65 °C	1,228.6 µS/cm	2.28 mg/L	3.13 NTU	312.5 mV	12.42 ft	100.00 ml/min
2/8/2022 4:54 PM	01:20:00	5.37 pH	16.44 °C	1,240.6 µS/cm	2.19 mg/L	3.75 NTU	412.8 mV	12.52 ft	100.00 ml/min

Samples

Sample ID:	Description:
MW-22	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/10/2022 9:13:41 AM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: MW-23D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 52.79 ft** **Total Depth: 62.79 ft** **Initial Depth to Water: 14.05 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 57.79 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.15 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 30 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/10/2022 9:13 AM	00:00	6.98 pH	13.40 °C	1,503.6 µS/cm	1.56 mg/L	2.70 NTU	-17.3 mV	14.20 ft	200.00 ml/min
2/10/2022 9:18 AM	05:00	6.90 pH	16.03 °C	1,487.3 µS/cm	0.45 mg/L	1.33 NTU	-10.7 mV	14.20 ft	200.00 ml/min
2/10/2022 9:23 AM	10:00	6.89 pH	16.37 °C	1,503.6 µS/cm	0.34 mg/L	0.84 NTU	-14.3 mV	14.20 ft	200.00 ml/min
2/10/2022 9:28 AM	15:00	6.89 pH	16.55 °C	1,494.8 µS/cm	0.28 mg/L	0.90 NTU	-13.2 mV	14.20 ft	200.00 ml/min
2/10/2022 9:33 AM	20:00	6.89 pH	16.52 °C	1,499.3 µS/cm	0.25 mg/L	0.94 NTU	-8.5 mV	14.20 ft	200.00 ml/min
2/10/2022 9:38 AM	25:00	6.88 pH	16.42 °C	1,511.3 µS/cm	0.22 mg/L	0.25 NTU	-10.6 mV	14.20 ft	200.00 ml/min
2/10/2022 9:43 AM	30:00	6.87 pH	16.44 °C	1,522.4 µS/cm	0.21 mg/L	1.13 NTU	-8.6 mV	14.20 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW-23D	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 3:40:20 PM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: MW-33 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 27.93 ft** **Total Depth: 37.93 ft** **Initial Depth to Water: 20.15 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 32.93 ft** **Estimated Total Volume Pumped: 10 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.85 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 3:40 PM	00:00	4.38 pH	18.62 °C	2,524.9 µS/cm	5.56 mg/L	22.40 NTU	41.5 mV	20.15 ft	200.00 ml/min
2/8/2022 3:45 PM	05:00	4.32 pH	18.07 °C	2,480.2 µS/cm	1.82 mg/L	31.00 NTU	145.7 mV	20.95 ft	200.00 ml/min
2/8/2022 3:50 PM	10:00	4.32 pH	18.16 °C	2,473.8 µS/cm	1.55 mg/L	32.30 NTU	151.6 mV	21.00 ft	200.00 ml/min
2/8/2022 3:55 PM	15:00	4.34 pH	18.25 °C	2,472.6 µS/cm	1.19 mg/L	26.50 NTU	136.1 mV	21.00 ft	200.00 ml/min
2/8/2022 4:00 PM	20:00	4.36 pH	18.19 °C	2,476.4 µS/cm	0.99 mg/L	17.30 NTU	115.3 mV	21.00 ft	200.00 ml/min
2/8/2022 4:05 PM	25:00	4.37 pH	18.20 °C	2,474.4 µS/cm	0.94 mg/L	11.90 NTU	104.1 mV	21.00 ft	200.00 ml/min
2/8/2022 4:10 PM	30:00	4.38 pH	18.24 °C	2,473.1 µS/cm	0.86 mg/L	9.84 NTU	92.1 mV	21.00 ft	200.00 ml/min
2/8/2022 4:15 PM	35:00	4.38 pH	18.20 °C	2,473.8 µS/cm	0.84 mg/L	6.96 NTU	93.5 mV	21.00 ft	200.00 ml/min
2/8/2022 4:20 PM	40:00	4.40 pH	18.15 °C	2,472.2 µS/cm	0.77 mg/L	6.62 NTU	90.5 mV	21.00 ft	200.00 ml/min
2/8/2022 4:25 PM	45:00	4.40 pH	18.15 °C	2,473.3 µS/cm	0.69 mg/L	5.58 NTU	90.0 mV	21.00 ft	200.00 ml/min
2/8/2022 4:30 PM	50:00	4.42 pH	18.21 °C	2,474.2 µS/cm	0.74 mg/L	4.95 NTU	77.0 mV	21.00 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW-33	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/9/2022 10:14:57 AM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: MW-34D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 63.68 ft** **Total Depth: 73.68 ft** **Initial Depth to Water: 25.67 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 68.68 ft** **Estimated Total Volume Pumped: 42 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.23 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 32 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/9/2022 10:14 AM	00:00	7.21 pH	17.89 °C	2,794.5 µS/cm	2.22 mg/L	14.00 NTU	-11.5 mV	25.77 ft	200.00 ml/min
2/9/2022 10:19 AM	05:00	7.19 pH	18.69 °C	2,765.6 µS/cm	1.43 mg/L	22.00 NTU	-26.7 mV	25.90 ft	200.00 ml/min
2/9/2022 10:24 AM	10:00	7.19 pH	19.27 °C	2,749.1 µS/cm	2.00 mg/L	25.00 NTU	-38.3 mV	25.90 ft	200.00 ml/min
2/9/2022 10:29 AM	15:00	7.20 pH	19.36 °C	2,744.7 µS/cm	2.55 mg/L	33.70 NTU	-40.5 mV	25.90 ft	200.00 ml/min
2/9/2022 10:34 AM	20:00	7.21 pH	19.21 °C	2,753.2 µS/cm	3.00 mg/L	25.90 NTU	-40.9 mV	25.90 ft	200.00 ml/min
2/9/2022 10:39 AM	25:00	7.21 pH	19.22 °C	2,751.2 µS/cm	3.40 mg/L	26.70 NTU	-40.7 mV	25.90 ft	200.00 ml/min
2/9/2022 10:44 AM	30:00	7.22 pH	19.21 °C	2,749.9 µS/cm	3.76 mg/L	26.20 NTU	-39.7 mV	25.90 ft	200.00 ml/min
2/9/2022 10:49 AM	35:00	7.23 pH	19.13 °C	2,757.6 µS/cm	4.18 mg/L	28.20 NTU	-38.8 mV	25.90 ft	200.00 ml/min
2/9/2022 10:54 AM	40:00	7.23 pH	19.06 °C	2,756.1 µS/cm	4.39 mg/L	21.40 NTU	-37.4 mV	25.90 ft	200.00 ml/min
2/9/2022 10:59 AM	45:00	7.23 pH	19.38 °C	2,745.6 µS/cm	4.43 mg/L	23.70 NTU	-36.5 mV	25.90 ft	200.00 ml/min
2/9/2022 11:04 AM	50:00	7.23 pH	19.49 °C	2,739.9 µS/cm	4.48 mg/L	19.90 NTU	-27.0 mV	25.90 ft	200.00 ml/min
2/9/2022 11:09 AM	55:00	7.24 pH	19.36 °C	2,746.7 µS/cm	4.58 mg/L	25.10 NTU	-34.8 mV	25.90 ft	200.00 ml/min
2/9/2022 11:14 AM	01:00:00	7.24 pH	19.26 °C	2,742.1 µS/cm	4.74 mg/L	23.70 NTU	-24.8 mV	25.90 ft	200.00 ml/min

2/9/2022 11:19 AM	01:05:00	7.24 pH	19.40 °C	2,733.5 µS/cm	4.96 mg/L	23.20 NTU	-32.3 mV	25.90 ft	200.00 ml/min
2/9/2022 11:24 AM	01:10:00	7.24 pH	19.31 °C	2,734.9 µS/cm	5.13 mg/L	22.30 NTU	-23.2 mV	25.90 ft	200.00 ml/min
2/9/2022 11:29 AM	01:15:00	7.24 pH	19.18 °C	2,738.7 µS/cm	5.11 mg/L	21.70 NTU	-30.4 mV	25.90 ft	200.00 ml/min
2/9/2022 11:34 AM	01:20:00	7.24 pH	19.31 °C	2,724.7 µS/cm	4.86 mg/L	22.20 NTU	-29.6 mV	25.90 ft	200.00 ml/min
2/9/2022 11:39 AM	01:25:00	7.23 pH	19.14 °C	2,728.7 µS/cm	4.07 mg/L	19.50 NTU	-27.4 mV	25.90 ft	200.00 ml/min
2/9/2022 11:44 AM	01:30:00	7.23 pH	19.28 °C	2,719.8 µS/cm	3.15 mg/L	16.20 NTU	-25.7 mV	25.90 ft	200.00 ml/min
2/9/2022 11:49 AM	01:35:00	7.22 pH	19.31 °C	2,715.1 µS/cm	2.55 mg/L	15.90 NTU	-25.0 mV	25.90 ft	200.00 ml/min
2/9/2022 11:54 AM	01:40:00	7.22 pH	19.00 °C	2,717.5 µS/cm	2.17 mg/L	14.20 NTU	-24.1 mV	25.90 ft	200.00 ml/min
2/9/2022 11:59 AM	01:45:00	7.22 pH	19.26 °C	2,700.2 µS/cm	1.82 mg/L	14.00 NTU	-23.1 mV	25.90 ft	200.00 ml/min
2/9/2022 12:04 PM	01:50:00	7.22 pH	19.41 °C	2,702.4 µS/cm	1.47 mg/L	13.00 NTU	-22.0 mV	25.90 ft	200.00 ml/min
2/9/2022 12:09 PM	01:55:00	7.21 pH	19.22 °C	2,704.5 µS/cm	1.18 mg/L	12.02 NTU	-20.8 mV	25.90 ft	200.00 ml/min
2/9/2022 12:14 PM	02:00:00	7.21 pH	19.20 °C	2,698.2 µS/cm	1.05 mg/L	12.67 NTU	-14.6 mV	25.90 ft	200.00 ml/min
2/9/2022 12:19 PM	02:05:00	7.21 pH	19.42 °C	2,688.6 µS/cm	0.88 mg/L	12.31 NTU	-20.4 mV	25.90 ft	200.00 ml/min
2/9/2022 12:24 PM	02:10:00	7.21 pH	19.43 °C	2,685.8 µS/cm	0.82 mg/L	11.83 NTU	-13.7 mV	25.90 ft	200.00 ml/min
2/9/2022 12:29 PM	02:15:00	7.21 pH	19.53 °C	2,679.8 µS/cm	0.76 mg/L	10.42 NTU	-19.8 mV	25.90 ft	200.00 ml/min
2/9/2022 12:34 PM	02:20:00	7.21 pH	19.71 °C	2,686.8 µS/cm	0.75 mg/L	10.20 NTU	-13.0 mV	25.90 ft	200.00 ml/min
2/9/2022 12:39 PM	02:25:00	7.21 pH	19.63 °C	2,696.5 µS/cm	0.75 mg/L	10.68 NTU	-13.3 mV	25.90 ft	200.00 ml/min
2/9/2022 12:44 PM	02:30:00	7.21 pH	19.54 °C	2,673.0 µS/cm	0.75 mg/L	10.29 NTU	-19.3 mV	25.90 ft	200.00 ml/min
2/9/2022 12:49 PM	02:35:00	7.21 pH	19.66 °C	2,668.8 µS/cm	0.65 mg/L	7.43 NTU	-18.5 mV	25.90 ft	200.00 ml/min
2/9/2022 12:54 PM	02:40:00	7.21 pH	19.85 °C	2,665.8 µS/cm	0.62 mg/L	8.77 NTU	-12.7 mV	25.90 ft	200.00 ml/min
2/9/2022 12:59 PM	02:45:00	7.21 pH	19.71 °C	2,669.1 µS/cm	0.70 mg/L	9.26 NTU	-18.0 mV	25.90 ft	200.00 ml/min
2/9/2022 1:04 PM	02:50:00	7.21 pH	19.88 °C	2,663.4 µS/cm	0.70 mg/L	8.38 NTU	-12.5 mV	25.90 ft	200.00 ml/min
2/9/2022 1:09 PM	02:55:00	7.21 pH	19.97 °C	2,657.1 µS/cm	0.67 mg/L	7.17 NTU	-12.2 mV	25.90 ft	200.00 ml/min
2/9/2022 1:14 PM	03:00:00	7.21 pH	19.87 °C	2,658.2 µS/cm	0.68 mg/L	6.86 NTU	-18.1 mV	25.90 ft	200.00 ml/min
2/9/2022 1:19 PM	03:05:00	7.21 pH	19.87 °C	2,660.6 µS/cm	0.62 mg/L	6.26 NTU	-18.1 mV	25.90 ft	200.00 ml/min
2/9/2022 1:24 PM	03:10:00	7.21 pH	19.94 °C	2,651.3 µS/cm	0.55 mg/L	7.13 NTU	-18.1 mV	25.90 ft	200.00 ml/min
2/9/2022 1:29 PM	03:15:00	7.21 pH	19.92 °C	2,645.8 µS/cm	0.53 mg/L	6.39 NTU	-18.0 mV	25.90 ft	200.00 ml/min
2/9/2022 1:34 PM	03:20:00	7.21 pH	19.98 °C	2,652.2 µS/cm	0.55 mg/L	6.07 NTU	-12.6 mV	25.90 ft	200.00 ml/min
2/9/2022 1:39 PM	03:25:00	7.21 pH	19.95 °C	2,649.0 µS/cm	0.55 mg/L	5.86 NTU	-12.5 mV	25.90 ft	200.00 ml/min

2/9/2022 1:44 PM	03:30:00	7.21 pH	19.93 °C	2,653.2 µS/cm	0.47 mg/L	4.37 NTU	-18.2 mV	25.90 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW-34D	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 12:05:15 PM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: MW-35 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13.52 ft** **Total Depth: 23.52 ft** **Initial Depth to Water: 2.66 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 18.52 ft** **Estimated Total Volume Pumped: 3.5 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 0.99 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 12:05 PM	00:00	4.89 pH	16.21 °C	2,515.5 µS/cm	1.27 mg/L	4.43 NTU	48.6 mV	3.26 ft	100.00 ml/min
2/8/2022 12:10 PM	05:00	4.87 pH	15.09 °C	2,502.0 µS/cm	0.80 mg/L	4.33 NTU	53.3 mV	3.41 ft	100.00 ml/min
2/8/2022 12:15 PM	10:00	4.87 pH	14.89 °C	2,485.2 µS/cm	0.72 mg/L	3.86 NTU	61.2 mV	3.50 ft	100.00 ml/min
2/8/2022 12:20 PM	15:00	4.86 pH	14.98 °C	2,490.3 µS/cm	0.62 mg/L	3.61 NTU	59.9 mV	3.60 ft	100.00 ml/min
2/8/2022 12:25 PM	20:00	4.86 pH	15.18 °C	2,497.3 µS/cm	0.58 mg/L	3.89 NTU	64.5 mV	3.62 ft	100.00 ml/min
2/8/2022 12:30 PM	25:00	4.86 pH	15.47 °C	2,494.2 µS/cm	0.57 mg/L	3.44 NTU	61.8 mV	3.65 ft	100.00 ml/min
2/8/2022 12:35 PM	30:00	4.86 pH	15.71 °C	2,493.1 µS/cm	0.52 mg/L	2.81 NTU	59.7 mV	3.65 ft	100.00 ml/min

Samples

Sample ID:	Description:
MW-35	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 9:46:46 AM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: MW-37D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 66.63 ft** **Total Depth: 76.63 ft** **Initial Depth to Water: 12.06 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 71.63 ft** **Estimated Total Volume Pumped: 40 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 36.15 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny 35 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 9:46 AM	00:00	7.51 pH	16.42 °C	1,157.8 µS/cm	0.66 mg/L	5.91 NTU	-83.6 mV	15.50 ft	300.00 ml/min
2/8/2022 9:51 AM	05:00	7.52 pH	16.86 °C	1,142.2 µS/cm	0.56 mg/L	3.17 NTU	-87.3 mV	16.88 ft	300.00 ml/min
2/8/2022 9:56 AM	10:00	7.53 pH	16.97 °C	1,150.3 µS/cm	0.58 mg/L	2.69 NTU	-87.7 mV	18.82 ft	300.00 ml/min
2/8/2022 10:01 AM	15:00	7.53 pH	17.09 °C	1,125.6 µS/cm	0.62 mg/L	2.41 NTU	-108.9 mV	20.95 ft	300.00 ml/min
2/8/2022 10:06 AM	20:00	7.52 pH	17.16 °C	1,126.0 µS/cm	0.65 mg/L	2.44 NTU	-109.5 mV	22.35 ft	300.00 ml/min
2/8/2022 10:11 AM	25:00	7.53 pH	17.18 °C	1,140.5 µS/cm	0.62 mg/L	2.05 NTU	-89.8 mV	24.13 ft	300.00 ml/min
2/8/2022 10:16 AM	30:00	7.54 pH	17.20 °C	1,124.3 µS/cm	0.57 mg/L	1.90 NTU	-89.7 mV	25.74 ft	300.00 ml/min
2/8/2022 10:21 AM	35:00	7.54 pH	17.22 °C	1,131.0 µS/cm	0.57 mg/L	1.90 NTU	-111.2 mV	27.59 ft	300.00 ml/min
2/8/2022 10:26 AM	40:00	7.54 pH	17.32 °C	858.92 µS/cm	0.57 mg/L	1.51 NTU	-91.3 mV	28.88 ft	300.00 ml/min
2/8/2022 10:31 AM	45:00	7.54 pH	17.43 °C	1,137.7 µS/cm	0.55 mg/L	1.69 NTU	-92.4 mV	30.77 ft	300.00 ml/min
2/8/2022 10:36 AM	50:00	7.55 pH	17.45 °C	1,139.1 µS/cm	0.59 mg/L	1.68 NTU	-93.2 mV	32.05 ft	300.00 ml/min
2/8/2022 10:41 AM	55:00	7.54 pH	17.49 °C	1,144.4 µS/cm	0.60 mg/L	1.61 NTU	-93.0 mV	33.43 ft	300.00 ml/min
2/8/2022 10:46 AM	01:00:00	7.55 pH	17.49 °C	915.48 µS/cm	0.66 mg/L	1.96 NTU	-94.0 mV	34.71 ft	300.00 ml/min

2/8/2022 10:51 AM	01:05:00	7.56 pH	17.40 °C	1,158.4 µS/cm	0.58 mg/L	1.74 NTU	-94.5 mV	35.62 ft	300.00 ml/min
2/8/2022 10:56 AM	01:10:00	7.56 pH	17.49 °C	1,230.7 µS/cm	0.64 mg/L	1.71 NTU	-95.2 mV	37.33 ft	300.00 ml/min
2/8/2022 10:59 AM	01:12:52	7.56 pH	17.54 °C	1,176.4 µS/cm	0.58 mg/L	1.78 NTU	-92.7 mV	38.25 ft	300.00 ml/min
2/8/2022 11:04 AM	01:17:52	7.56 pH	17.57 °C	1,222.1 µS/cm	0.58 mg/L	1.82 NTU	-95.3 mV	38.82 ft	300.00 ml/min
2/8/2022 11:09 AM	01:22:52	7.57 pH	17.58 °C	1,194.9 µS/cm	0.63 mg/L	1.98 NTU	-95.3 mV	40.05 ft	300.00 ml/min
2/8/2022 11:14 AM	01:27:52	7.57 pH	17.57 °C	1,201.9 µS/cm	0.60 mg/L	2.16 NTU	-94.3 mV	40.92 ft	300.00 ml/min
2/8/2022 11:19 AM	01:32:52	7.57 pH	17.58 °C	1,197.2 µS/cm	0.58 mg/L	2.10 NTU	-95.8 mV	42.23 ft	300.00 ml/min
2/8/2022 11:24 AM	01:37:52	7.57 pH	17.54 °C	1,208.8 µS/cm	0.59 mg/L	2.01 NTU	-95.6 mV	43.13 ft	300.00 ml/min
2/8/2022 11:29 AM	01:42:52	7.58 pH	17.62 °C	1,207.0 µS/cm	0.62 mg/L	1.73 NTU	-96.9 mV	44.12 ft	300.00 ml/min
2/8/2022 11:34 AM	01:47:52	7.58 pH	17.66 °C	1,214.0 µS/cm	0.62 mg/L	2.05 NTU	-97.3 mV	45.05 ft	300.00 ml/min
2/8/2022 11:39 AM	01:52:52	7.58 pH	17.69 °C	1,216.3 µS/cm	0.58 mg/L	1.77 NTU	-99.3 mV	46.03 ft	300.00 ml/min
2/8/2022 11:44 AM	01:57:52	7.58 pH	17.72 °C	1,216.7 µS/cm	0.61 mg/L	1.98 NTU	-100.0 mV	46.88 ft	300.00 ml/min
2/8/2022 11:49 AM	02:02:52	7.59 pH	17.72 °C	1,205.9 µS/cm	0.58 mg/L	1.86 NTU	-102.1 mV	47.86 ft	300.00 ml/min
2/8/2022 11:54 AM	02:07:52	7.59 pH	17.54 °C	1,214.6 µS/cm	0.77 mg/L	1.77 NTU	-101.1 mV	48.28 ft	100.00 ml/min
2/8/2022 11:59 AM	02:12:52	7.61 pH	17.45 °C	1,196.8 µS/cm	0.76 mg/L	1.71 NTU	-106.9 mV	48.19 ft	100.00 ml/min
2/8/2022 12:04 PM	02:17:52	7.62 pH	17.43 °C	1,211.3 µS/cm	0.78 mg/L	1.38 NTU	-112.6 mV	48.21 ft	100.00 ml/min
2/8/2022 12:09 PM	02:22:52	7.63 pH	17.53 °C	1,227.4 µS/cm	0.78 mg/L	1.24 NTU	-116.6 mV	48.21 ft	100.00 ml/min

Samples

Sample ID:	Description:
MW-27D	Grab sample.

Low-Flow Test Report:

Test Date / Time: 2/8/2022 1:34:39 PM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: MW-51 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.9 ft Total Depth: 28.9 ft** **Initial Depth to Water: 2.86 ft**	**Pump Type: Peristaltic** **Tubing Type: Poly** **Pump Intake From TOC: 23.90 ft** **Estimated Total Volume Pumped: 3.5 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 0.69 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 728634**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/8/2022 1:34 PM	00:00	6.49 pH	17.10 °C	2,716.5 µS/cm	0.86 mg/L	36.10 NTU	14.0 mV	2.86 ft	200.00 ml/min
2/8/2022 1:39 PM	05:00	6.57 pH	15.97 °C	2,695.3 µS/cm	0.32 mg/L	39.50 NTU	0.2 mV	3.45 ft	200.00 ml/min
2/8/2022 1:44 PM	10:00	6.59 pH	16.02 °C	2,707.7 µS/cm	0.25 mg/L	32.00 NTU	-4.5 mV	3.49 ft	200.00 ml/min
2/8/2022 1:49 PM	15:00	6.59 pH	16.10 °C	2,706.8 µS/cm	0.22 mg/L	24.20 NTU	-6.6 mV	3.55 ft	200.00 ml/min
2/8/2022 1:54 PM	20:00	6.59 pH	16.32 °C	2,711.1 µS/cm	0.20 mg/L	12.20 NTU	-6.3 mV	3.55 ft	200.00 ml/min
2/8/2022 1:59 PM	25:00	6.57 pH	16.39 °C	2,707.0 µS/cm	0.18 mg/L	7.79 NTU	-6.8 mV	3.55 ft	200.00 ml/min
2/8/2022 2:04 PM	30:00	6.57 pH	16.46 °C	2,704.6 µS/cm	0.17 mg/L	3.51 NTU	-8.1 mV	3.55 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW-51	Grab sample.

CALIBRATION REPORTS

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: AS

Date: 2/1/2022

Time (start): 754

Time (finish): 815

smarTroll SN: 843593

Turbidity Meter Type: LaMote 2020we

SN: 1475

Weather Conditions: Clear, 35° F

Facility and Unit: Plant Hammond

Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/2022	3.70	4490	4596.3	4490.0	+/- 5 %	Yes No	
pH (4)		3.85	4.00	3.97	4.00	+/- 0.1 SU	Yes No	
Mid-Day pH (4) check	21070193 08/2022	15.37	4.00	(4.21)	4.00 at 2/1/2022	+/- 0.1 SU	Yes No	Lost battery, 2nd Calibration
pH (7)	21010066 08/2022	4.65	7.00	7.04	7.00	+/- 0.1 SU	Yes No	
Mid-Day pH (7) check	21010066 08/2022	15.53	7.00 at 2/1/2022	7.22	7.00	+/- 0.1 SU	Yes No	
pH (10)	21080189 06/2022	5.46	10.00	10.21 at 2/1/2022	10.00	+/- 0.1 SU	Yes No	
Mid-Day pH (10) check	21080189 06/2022	15.70	10.00 at 2/1/2022	10.07	10.00	+/- 0.1 SU	Yes No	
ORP (mV)	21140141 08/2022	5.46	228	242.2 at 2/1/2022	228.0	+/- 20mV	Yes No	
DO (%) (1pt, 100% water saturated air cal)			100	97.67	100.0	+/- 6 % saturation	Yes No	
Turbidity 0 NTU			0	0.66	0.43	+/- 0.5 NTU	Yes No	
Turbidity 1 NTU			1.00	1.42	1.0	+/- 0.5 NTU	Yes No	
Turbidity 10 NTU			10.00	8.13	10.00	+/- 0.5 NTU	Yes No	

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EQUIPMENT CALIBRATION LOG

Field Technician: C. CAIN | Date: 2/1/22 | Time (start): 0809 | Time (finish): 0829

smarTroll SN: 850724 | Turbidity Meter Type: LaMote 2020we | SN: 1601

Weather Conditions: Sunny 31° | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 8/22	2.11	4490	4563.4	4490	+/- 5 %	Yes / No	
pH (4)			4.00	3.99	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	21070193 8/22	14.6 2.16	4.00	4.13	4.0	+/- 0.1 SU	Yes / No	
pH (7)	21010066 8/22	2.39	7.00	7.07	7.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	21010066 " 8/22	14.96	7.00	7.16	7.0	+/- 0.1 SU	Yes / No	
pH (10)	21080189 6/22	2.35	10.00	10.22	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	21080189 " 6/22	14.13	10.00	10.05	10.0	+/- 0.1 SU	Yes / No	
ORP (mV)	211140141 8/22	2.21	228	247.2	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	101.59	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.02	0.02	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.04	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	10.89	10.0	+/- 0.5 NTU	Yes / No	

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EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Hess/m | Date: 2/11/2022 | Time (start): 0730 | Time (finish): 0820

smarTroll SN: 728634 | Turbidity Meter Type: LaMote 2020we | SN: 5990-3915

Weather Conditions: Clear, 30° | Facility and Unit: Hamond # | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/22	~~12.5~~ 10.35	4490	4255.6	4490	+/- 5 %	Yes / No	
pH (4)			4.00	4.02	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	21070193 8/22	—	4.00	4.02	—	+/- 0.1 SU	Yes / No	
pH (7)	21060CC 08/2022	8.32	7.00	7.05	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	21010066 08/22	—	7.00	6.99	—	+/- 0.1 SU	Yes / No	
pH (10)	21080189 08/2022	7.86	10.00	10.09	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	21080189 08/2022	7.45	10.00	2557	2274	+/- 0.1 SU	Yes / No	
ORP (mV)	21140141 08/2022	—	228	10.06	—	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	88.7	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.52	0	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.99	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	7.97	9.93	+/- 0.5 NTU	Yes / No	

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EQUIPMENT CALIBRATION LOG

Field Technician: A. Stewart | Date: 2/7/2022 | Time (start): 813 | Time (finish): 830

smarTroll SN: 843593 | Turbidity Meter Type: LaMote 2020we | SN: 1475

Weather Conditions: Sunny, 35°F | Facility and Unit: Plant Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/2022	9.99	4490	4574.4	4490.0	+/- 5 %	Yes / No	
pH (4)		10.08	4.00	3.97	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	21070193 08/2022	10.83	4.00	4.13	4.00	+/- 0.1 SU	Yes / No	
pH (7)	21010066 08/2022	9.98	7.00	7.04	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	21010066 08/2022	11.01	7.00	7.15	7.00	+/- 0.1 SU	Yes / No	
pH (10)	21080189 06/2022	10.11	10.00	10.09	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	21080189 06/2022	11.05	10.00	10.12	10.00	+/- 0.1 SU	Yes / No	
ORP (mV)	21140141 08/2022	10.27	228	234.0	228.0	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	99.00	100.0	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.14	0.00	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.12	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	9.81	10.00	+/- 0.5 NTU	Yes / No	

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EQUIPMENT CALIBRATION LOG

Field Technician: C. CAIN | Date: 2/7/22 | Time (start): 0816 | Time (finish): 0841

smarTroll SN: 850724 | Turbidity Meter Type: LaMote 2020we | SN: 1610

Weather Conditions: Sun 29F | Facility and Unit: Plant Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 6/22	9.76	4490	4292	4490	+/- 5 %	Yes / No	
pH (4)			4.00	3.97	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	// 21070193 " 8/22	11.98	4.00	4.08	4.0	+/- 0.1 SU	Yes / No	
pH (7)	21010066 8/22	7.92	7.00	7.05	7.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	// 21010066 " 8/22	12.24	7.00	7.07	7.0	+/- 0.1 SU	Yes / No	
pH (10)	21080189 6/22	7.32	10.00	10.12	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	// 21080189 " 6/22	11.28	10.00	10.09	10.0	+/- 0.1 SU	Yes / No	
ORP (mV)	211401611 8/22	8.87	228	241.0	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	100.72	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.01	0.0	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.89	1.0	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	10.08	10.0	+/- 0.5 NTU	Yes / No	

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EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Hester

Date: 2/17/2022

Time (start): 0800

Time (finish): 0840

smarTroll SN: 776634

Turbidity Meter Type: LaMote 2020we

SN: 5940-3915

Weather Conditions: Sunny, 29°

Facility and Unit: Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/2022	3.49	4490	5,007	4490	+/- 5 %	Yes / No	
pH (4)			4.00	3.97	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	"21070193" 08/2022	—	4.00	4.00	—	+/- 0.1 SU	Yes / No	
pH (7)	21010066 08/2022	7.33	7.00	7.07	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	"21010066" 08/2022	—	7.00	6.92	—	+/- 0.1 SU	Yes / No	
pH (10)	21080159 06/2022	7.95	10.00	10.08	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	"21080189" 06/2022	—	10.00	10.03	—	+/- 0.1 SU	Yes / No	
ORP (mV)	21140141 08/2022	8.36	228	235.8	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	96.2	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	1.59	0	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.16	1.05	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	7.77	9.85	+/- 0.5 NTU	Yes / No	

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EQUIPMENT CALIBRATION LOG

Field Technician: A. Szwest

Date: 2/8/2022

Time (start): 800

Time (finish): 821

smarTroll SN: 843593

Turbidity Meter Type: LaMote 2020we

SN: 1475

Weather Conditions: Sunny, 30°F

Facility and Unit: Plant Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/2022	4.9 5.01 2/8/2022	4490	4610.0	4490.0	+/- 5 %	Yes No	
pH (4)		5.36	4.00	3.96	4.00	+/- 0.1 SU	Yes No	
Mid-Day pH (4) check	21070193 08/2022	15.48	4.00	4.09	4.00	+/- 0.1 SU	Yes No	
pH (7)	21010066 08/2022	5.97	7.00	7.00	7.00	+/- 0.1 SU	Yes No	
Mid-Day pH (7) check	21010066 08/2022	14.26	7.00	7.08	7.00	+/- 0.1 SU	Yes No	
pH (10)	21080189 06/2022	6.67	10.00	10.13	10.00	+/- 0.1 SU	Yes No	
Mid-Day pH (10) check	21080189 06/2022	14.68	10.00	10.08	10.00	+/- 0.1 SU	Yes No	
ORP (mV)	21140141 08/2022	6.84	228	232.7	228.0	+/- 20mV	Yes No	
DO (%) (1pt, 100% water saturated air cal)			100	99.13	100.0	+/- 6 % saturation	Yes No	
Turbidity 0 NTU			0	0	0	+/- 0.5 NTU	Yes No	
Turbidity 1 NTU			1.00	0.82	1.0	+/- 0.5 NTU	Yes No	
Turbidity 10 NTU			10.00	10.55	10.0	+/- 0.5 NTU	Yes No	

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EQUIPMENT CALIBRATION LOG

Field Technician: C. CAIN | Date: 2/8/22 | Time (start): 0747 | Time (finish): 0813

smarTroll SN: 850724 | Turbidity Meter Type: LaMote 2020we | SN: 1610

Weather Conditions: Sun 27F | Facility and Unit: Plant Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 8/22	7.89	4490	4459	4490	+/- 5 %	Yes / No	
pH (4)			4.00	4.03	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	// 21070193 // 8/22	—	4.00	4.04	4.0	+/- 0.1 SU	Yes / No	
pH (7)	21010066 8/22	8.04	7.00	7.06	7.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	// 21010066 // 8/22	—	7.00	6.97	7.0	+/- 0.1 SU	Yes / No	
pH (10)	21080169 6/22	7.78	10.00	10.13	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	// 21080189 // 6/22	—	10.00	10.07	10.0	+/- 0.1 SU	Yes / No	
ORP (mV)	21140141 6/22	7.41	228	227.6	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	99.47	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.0	0.0	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.00	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	10.26	10.0	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Hesch | Date: 2/8/2022 | Time (start): 0740 | Time (finish): 0818

smarTroll SN: 728634 | Turbidity Meter Type: LaMote 2020we | SN: 5990-3913

Weather Conditions: Sunny, 28° | Facility and Unit: Plant Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/2022	4.75	4490	4283.2	4490	+/- 5 %	Yes / No	
pH (4)			4.00	4.03	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	" 21070193 " 08/2022	—	4.00	3.99	—	+/- 0.1 SU	Yes / No	
pH (7)	21010CC 08/2022	5.75	7.00	7.05	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	" 21010066 " 08/2022	—	7.00	7.01	—	+/- 0.1 SU	Yes / No	
pH (10)	21080189 08/22	6.33	10.00	10.05	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	" 21080189 " 08/22	—	10.00	10.03	—	+/- 0.1 SU	Yes / No	
ORP (mV)	21[illegible] 07/2022	6.35	228	228.1	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	92.05	100.00	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.00	0.00	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.11	0.94	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	7.10	10.08	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: [illegible]

Date: 21/8/2022

Time (start): 0900

Time (finish): 0935

smarTroll SN: 728634

Turbidity Meter Type: LaMote 2020we

SN: 5990-3915

Weather Conditions: Clear, 30

Facility and Unit: Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070143 08/22	8.70	4490	4353.7	4490	+/- 5 %	(Yes) No	
pH (4)			4.00	4.02	4.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (4) check	21070193 08/22	~~4.02~~	4.00	4.03	—	+/- 0.1 SU	(Yes) No	
pH (7)	21010066 08/22	8.88	7.00	7.00	7.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (7) check	21010066 08/22	—	7.00	7.00	—	+/- 0.1 SU	(Yes) No	
pH (10)	21080149 08/2022	8.69	10.00	10.09	10.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (10) check	21080149 08/2022	—	10.00	9.92	—	+/- 0.1 SU	(Yes) No	
ORP (mV)	2114641 08/22	8.69	228	226.5	228	+/- 20mV	(Yes) No	
DO (%) (1pt, 100% water saturated air cal)			100	99.02	100	+/- 6 % saturation	(Yes) No	
Turbidity 0 NTU			0	0.51	0.00	+/- 0.5 NTU	(Yes) No	
Turbidity 1 NTU			1.00	1.24	1.06	+/- 0.5 NTU	(Yes) No	
Turbidity 10 NTU			10.00	6.70	9.69	+/- 0.5 NTU	(Yes) No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Heeter

Date: 2/10/2022

Time (start): 0525

Time (finish): 758

smarTroll SN: 776634

Turbidity Meter Type: LaMote 2020we

SN: 5990-3915

Weather Conditions: Sunny 48°

Facility and Unit: Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/2022	6.9	4490	4666.1	4490	+/- 5 %	Yes / No	
pH (4)			4.00	4.00	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	"21070193" 08/2022	—	4.00	4.05	—	+/- 0.1 SU	Yes / No	
pH (7)	21060066 08/2022	7.98	7.00	7.04	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	"21010066" 08/2022	—	7.00	7.01	—	+/- 0.1 SU	Yes / No	
pH (10)	21060189 08/2022	8.75	10.00	10.12	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	"21080189" 08/2022	—	10.00	9.98	—	+/- 0.1 SU	Yes / No	
ORP (mV)	21140141 08/2022	8.83	228	226.1	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	95.74	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.63	0.00	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.11	1.16	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	7.47	9.65	+/- 0.5 NTU	Yes / No	

APPENDIX D

Statistical Analysis Report

GROUNDWATER STATS CONSULTING

August 31, 2022

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant Hammond Ash Pond 2 (AP-2)
Statistical Analysis – February 2022 Sample Event

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the February 2022 Semi-Annual Groundwater Detection and Assessment Monitoring Statistical summary of groundwater data for Georgia Power Company's Plant Hammond AP-2. 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 (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for the Coal Combustion Residuals (CCR) program in 2016 and at least 8 samples were collected for all wells except for newer upgradient wells HGWA-42D, HGWA-43D, and HGWA-44D and delineation wells. Sampling began in 2019 for delineation wells MW-21D, MW-22, and MW-23D; and in 2020 for upgradient wells HGWA-42D, HGWA-43D, HGWA-44D, delineation wells MW-34D and MW-37D, and piezometers MW-33 and MW-35.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** HGWA-1, HGWA-2, HGWA-3, HGWA-4, HGWA-5, HGWA-6, HGWA-42D, HGWA-43D, and HGWA-44D
- **Downgradient wells:** HGWC-14, HGWC-15, HGWC-16, HGWC-17, and HGWC-18

- **Delineation wells:** MW-21D, MW-22, MW-23D, and MW-37D
- **Piezometers:** MW-33, MW-34D, MW-35, and MW-51

Note that piezometer MW-51 was first sampled during the August 2021 sample event and only 2 samples have been collected. All other piezometers have at least 4 samples. Delineation wells and piezometers are included on time series and box plots for all parameters. When a minimum of 4 samples is available, these wells and piezometers are evaluated using confidence intervals for the Appendix IV constituents.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician of Groundwater Stats Consulting. The statistical analysis was performed according to the groundwater data screening that was performed in April 2018 by GSC and approved by Dr. Cameron, PhD Statistician with MacStat Consulting and primary author of the USEPA Unified Guidance.

The CCR program consists of the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) **–** arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of well/constituent pairs containing 100% non-detects follows this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. In the case of lithium, historical reporting limits vary among the wells. Therefore, the reporting limit of 0.03 mg/L was substituted across all wells, which is the most recent reporting limit provided by the laboratory.

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. When values in background are flagged as outliers, they may be seen in a lighter

font and as a disconnected symbol on the graphs. No values were flagged as outliers (Figure C).

In earlier analyses, data at all wells were evaluated 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 to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Statistical Methods – Appendix III Parameters

Appendix III parameters are evaluated using Interwell Prediction Limits combined with 1-of-2 resamples for all constituents: boron, calcium, chloride, fluoride, pH, sulfate, and TDS.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification 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 (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect 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% non-detects.

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 is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, an earlier portion of data may require deselection prior to construction of limits 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. When this step is required, a summary of any adjusted records will be provided.

Statistical Evaluation of Appendix III Parameters – February 2022

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. When values in background have been flagged as outliers, they may be seen in a lighter font and as a disconnected symbol on the graphs. No new values were flagged and no values have been flagged as outliers (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed for all Appendix III parameters using all historical upgradient well data through February 2022 (Figure D). Downgradient measurements were compared to these interwell background limits. Interwell prediction limits use all available upgradient well data to establish a background limit for an individual constituent. The February 2022 sample from each downgradient well is compared to the background limit to determine whether any initial exceedances are present.

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 confirm the initial exceedance, a statistically significant increase (SSI) 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 further action is necessary. If no resample is collected, the initial exceedance is automatically confirmed.

When the February 2022 compliance data from downgradient wells were compared to interwell prediction limits, several exceedances were noted. A summary table of these findings is provided along with the prediction limits.

Trend Test Evaluation – Appendix III

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 E). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of natural variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Boron: HGWA-2 (upgradient) and HGWC-16
- Calcium: HGWA-3 (upgradient) and HGWC-16
- Chloride: HGWA-44D (upgradient) and HGWC-16
- Sulfate: HGWA-2 (upgradient)
- TDS: HGWC-16 and HGWC-17

Decreasing trends:

- Calcium: HGWA-4 (upgradient)
- Chloride: HGWA-4 (upgradient), HGWA-6 (upgradient), HGWC-14, HGWC-15, and HGWC-18
- pH: HGWA-4 (upgradient)
- TDS: HGWA-4 (upgradient) and HGWC-14

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (MCL or CCR rule-specified limits) or site-specific limits that are based on upgradient background groundwater quality. Site-specific background limits are determined using tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. Confidence intervals are provided for Appendix IV well/constituent pairs with detections and with current reported data. The methods are described below.

Statistical Evaluation of Appendix IV Parameters – February 2022

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that contain 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Site specific background limits were calculated as upper one-sided tolerance limits (UTLs) on pooled upgradient interwell data through February 2022 for each of the Appendix IV constituents (Figure F). When varying detection limits were present in upgradient wells, all non-detects were substituted with the most recent reporting limit. As mentioned above, an alternate reporting limit of 0.03 mg/L was substituted across all wells for lithium. Parametric tolerance limits were used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

Groundwater Protection Standards

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). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, 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, Federal and State CCR Rules specify levels 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

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well and delineation wells with 4 or more samples.

The Sanitas software was used to calculate the tolerance limits and the confidence intervals, either parametric or nonparametric, as appropriate. Confidence intervals were compared to the GWPS prepared as described above (Figure H). 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. Summaries of the confidence interval results, along with graphical comparison against GWPS follow this letter. Exceedances were noted for the following well/constituent pairs:

- Cobalt: HGWC-18, MW-33, and MW-35

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing trends:

- None

Decreasing trends:

- Cobalt: HGWC-18

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Hammond AP-2. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Andrew T. Collins
Project Manager

Tristan Clark
Groundwater Analyst

Kristina L. Rayner
Senior Statistician

100% Non-Detects: Appendix IV Downgradient & Delineation

Analysis Run 4/26/2022 4:53 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Antimony (mg/L)
HGWC-16, HGWC-17, MW-21D, MW-23D, MW-34D

Beryllium (mg/L)
HGWC-15, HGWC-16, MW-21D, MW-23D

Cadmium (mg/L)
HGWC-16, MW-21D, MW-37D

Lithium (mg/L)
HGWC-14

Mercury (mg/L)
HGWC-14, HGWC-15, HGWC-16, HGWC-17, MW-21D, MW-22, MW-23D, MW-33, MW-34D, MW-37D

Molybdenum (mg/L)
HGWC-14, HGWC-16, HGWC-17, HGWC-18, MW-33, MW-34D, MW-35

Selenium (mg/L)
MW-21D, MW-23D, MW-37D

Thallium (mg/L)
HGWC-15, HGWC-16, MW-21D, MW-22, MW-23D, MW-37D

Appendix III Interwell Prediction Limits - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	HGWC-14	0.44	n/a	2/9/2022	9.9	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-15	0.44	n/a	2/8/2022	1.9	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-16	0.44	n/a	2/8/2022	2.6	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-17	0.44	n/a	2/8/2022	7.8	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-18	0.44	n/a	2/8/2022	8.1	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-14	143.5	n/a	2/9/2022	571	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-15	143.5	n/a	2/8/2022	186	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-16	143.5	n/a	2/8/2022	218	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-17	143.5	n/a	2/8/2022	280	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-18	143.5	n/a	2/8/2022	418	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Chloride (mg/L)	HGWC-14	44.8	n/a	2/9/2022	174	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-15	44.8	n/a	2/8/2022	76.6	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-16	44.8	n/a	2/8/2022	96.4	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-17	44.8	n/a	2/8/2022	117	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-18	44.8	n/a	2/8/2022	105	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-18	8.25	4.9	2/8/2022	4.59	Yes	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-14	85.9	n/a	2/9/2022	1190	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-15	85.9	n/a	2/8/2022	360	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-16	85.9	n/a	2/8/2022	238	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-17	85.9	n/a	2/8/2022	364	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-18	85.9	n/a	2/8/2022	960	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-14	496	n/a	2/9/2022	2310	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-15	496	n/a	2/8/2022	866	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-16	496	n/a	2/8/2022	852	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-17	496	n/a	2/8/2022	1160	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-18	496	n/a	2/8/2022	1770	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-14**	**0.44**	**n/a**	**2/9/2022**	**9.9**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-15**	**0.44**	**n/a**	**2/8/2022**	**1.9**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-16**	**0.44**	**n/a**	**2/8/2022**	**2.6**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-17**	**0.44**	**n/a**	**2/8/2022**	**7.8**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-18**	**0.44**	**n/a**	**2/8/2022**	**8.1**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-14**	**143.5**	**n/a**	**2/9/2022**	**571**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-15**	**143.5**	**n/a**	**2/8/2022**	**186**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-16**	**143.5**	**n/a**	**2/8/2022**	**218**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-17**	**143.5**	**n/a**	**2/8/2022**	**280**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-18**	**143.5**	**n/a**	**2/8/2022**	**418**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**HGWC-14**	**44.8**	**n/a**	**2/9/2022**	**174**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-15**	**44.8**	**n/a**	**2/8/2022**	**76.6**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-16**	**44.8**	**n/a**	**2/8/2022**	**96.4**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-17**	**44.8**	**n/a**	**2/8/2022**	**117**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-18**	**44.8**	**n/a**	**2/8/2022**	**105**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Field pH (s.u.)	HGWC-14	8.25	4.9	2/9/2022	4.97	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-15	8.25	4.9	2/8/2022	6.04	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-16	8.25	4.9	2/8/2022	7.18	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-17	8.25	4.9	2/8/2022	6.42	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	**HGWC-18**	**8.25**	**4.9**	**2/8/2022**	**4.59**	**Yes**	**156**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001624**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	HGWC-14	0.96	n/a	2/9/2022	0.053J	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-15	0.96	n/a	2/8/2022	0.1ND	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-16	0.96	n/a	2/8/2022	0.1ND	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-17	0.96	n/a	2/8/2022	0.055J	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-18	0.96	n/a	2/8/2022	0.19	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-14**	**85.9**	**n/a**	**2/9/2022**	**1190**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-15**	**85.9**	**n/a**	**2/8/2022**	**360**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-16**	**85.9**	**n/a**	**2/8/2022**	**238**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-17**	**85.9**	**n/a**	**2/8/2022**	**364**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-18**	**85.9**	**n/a**	**2/8/2022**	**960**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-14**	**496**	**n/a**	**2/9/2022**	**2310**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-15**	**496**	**n/a**	**2/8/2022**	**866**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-16**	**496**	**n/a**	**2/8/2022**	**852**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-17**	**496**	**n/a**	**2/8/2022**	**1160**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-18**	**496**	**n/a**	**2/8/2022**	**1770**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**

Appendix III Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**HGWA-2 (bg)**	**0.002699**	**99**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-16**	**0.2592**	**105**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-3 (bg)**	**2.416**	**77**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-4 (bg)**	**-9.763**	**-86**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-16**	**13.65**	**120**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWA-4 (bg)**	**-0.4101**	**-117**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWA-44D (bg)**	**20.44**	**21**	**18**	**Yes**	**7**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWA-6 (bg)**	**-0.09427**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-14**	**-82.72**	**-94**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-15**	**-24.78**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-16**	**13.04**	**137**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-18**	**-37.28**	**-87**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (s.u.)	**HGWA-4 (bg)**	**-0.2883**	**-144**	**-92**	**Yes**	**22**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.393**	**83**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWA-4 (bg)**	**-31.44**	**-90**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-14**	**-185.6**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-16**	**51.63**	**117**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-17**	**63.57**	**86**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-1 (bg)	-0.0002287	-9	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWA-2 (bg)**	**0.002699**	**99**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWA-3 (bg)	0	-1	-68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-4 (bg)	-0.0007228	-34	-68	No	18	5.556	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-42D (bg)	-0.009419	-7	-18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-43D (bg)	-0.01252	-11	-18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-44D (bg)	0.1524	14	18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-5 (bg)	0.0001545	14	68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-6 (bg)	-0.0003871	-21	-68	No	18	5.556	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-14	-1.157	-61	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-15	0.04163	28	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWC-16**	**0.2592**	**105**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWC-17	0.2168	31	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-18	-0.1628	-24	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-1 (bg)	2.173	48	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-2 (bg)	0.4885	35	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWA-3 (bg)**	**2.416**	**77**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-4 (bg)**	**-9.763**	**-86**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWA-42D (bg)	1.22	3	18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-43D (bg)	-3.578	-7	-18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-44D (bg)	-5.272	-9	-18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-5 (bg)	0.211	10	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-6 (bg)	0.3827	26	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-14	-3.303	-15	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-15	2.137	21	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-16**	**13.65**	**120**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWC-17	15.94	58	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-18	7.552	38	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-1 (bg)	0.5239	40	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-2 (bg)	-0.1714	-45	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-3 (bg)	-0.129	-59	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWA-4 (bg)**	**-0.4101**	**-117**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	HGWA-42D (bg)	-0.8588	-10	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-43D (bg)	-0.2444	-4	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWA-44D (bg)**	**20.44**	**21**	**18**	**Yes**	**7**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	HGWA-5 (bg)	-0.08595	-62	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWA-6 (bg)**	**-0.09427**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-14**	**-82.72**	**-94**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-15**	**-24.78**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-16**	**13.04**	**137**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	HGWC-17	9.415	55	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWC-18**	**-37.28**	**-87**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (s.u.)	HGWA-1 (bg)	-0.02122	-51	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-2 (bg)	-0.04158	-52	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-3 (bg)	0.003685	8	92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	**HGWA-4 (bg)**	**-0.2883**	**-144**	**-92**	**Yes**	**22**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (s.u.)	HGWA-42D (bg)	0.1277	19	21	No	8	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-43D (bg)	0.09834	10	21	No	8	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-44D (bg)	0.1333	9	21	No	8	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-5 (bg)	-0.03318	-65	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-6 (bg)	-0.007348	-19	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWC-18	-0.02025	-67	-92	No	22	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-1 (bg)	1.419	24	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.393**	**83**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-3 (bg)	1.099	53	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-4 (bg)	-0.5358	-61	-68	No	18	16.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-42D (bg)	-0.4294	-6	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-43D (bg)	-8.864	-15	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-44D (bg)	7.3	9	18	No	7	14.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-5 (bg)	-0.4179	-28	-68	No	18	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate (mg/L)	HGWA-6 (bg)	-0.1792	-21	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-14	0	3	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-15	-12.58	-34	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-16	2.897	52	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-17	2.005	14	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-18	21.73	55	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-1 (bg)	-2.458	-3	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-2 (bg)	-1.375	-12	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-3 (bg)	0	2	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWA-4 (bg)**	**-31.44**	**-90**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWA-42D (bg)	1.437	1	18	No	7	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-43D (bg)	-42.44	-9	-18	No	7	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-44D (bg)	112.8	15	18	No	7	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-5 (bg)	-4.011	-32	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-6 (bg)	-1.024	-16	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-14**	**-185.6**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-15	-66.16	-68	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-16**	**51.63**	**117**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-17**	**63.57**	**86**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-18	-30.93	-44	-68	No	18	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	117	n/a	n/a	80.34	n/a	n/a	0.002475	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	150	n/a	n/a	79.33	n/a	n/a	0.0004556	NP Inter(NDs)
Barium (mg/L)	n/a	0.46	n/a	n/a	n/a	n/a	150	n/a	n/a	0	n/a	n/a	0.0004556	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	138	n/a	n/a	83.33	n/a	n/a	0.0008431	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	150	n/a	n/a	92.67	n/a	n/a	0.0004556	NP Inter(NDs)
Chromium (mg/L)	n/a	0.019	n/a	n/a	n/a	n/a	138	n/a	n/a	83.33	n/a	n/a	0.0008431	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.038	n/a	n/a	n/a	n/a	150	n/a	n/a	70	n/a	n/a	0.0004556	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.645	n/a	n/a	n/a	n/a	150	0.7613	0.279	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.96	n/a	n/a	n/a	n/a	156	n/a	n/a	34.62	n/a	n/a	0.0003349	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	138	n/a	n/a	71.74	n/a	n/a	0.0008431	NP Inter(NDs)
Lithium (mg/L)	n/a	0.048	n/a	n/a	n/a	n/a	150	n/a	n/a	18	n/a	n/a	0.0004556	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	96	n/a	n/a	91.67	n/a	n/a	0.007269	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	138	n/a	n/a	84.78	n/a	n/a	0.0008431	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	150	n/a	n/a	98.67	n/a	n/a	0.0004556	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	150	n/a	n/a	98.67	n/a	n/a	0.0004556	NP Inter(NDs)

PLANT HAMMOND AP-2 GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.46	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0019	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.038	0.038
Combined Radium, Total (pCi/L)	5		1.65	5
Fluoride, Total (mg/L)	4		0.96	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.048	0.048
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indidcates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Statard*

Confidence Intervals - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	**HGWC-18**	**0.187**	**0.1605**	**0.038**	**Yes**	**21**	**0.1738**	**0.02406**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-33**	**0.05716**	**0.04884**	**0.038**	**Yes**	**8**	**0.053**	**0.003928**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-35**	**0.09914**	**0.08253**	**0.038**	**Yes**	**6**	**0.09083**	**0.006047**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-14	0.003	0.00043	0.006	No	15	0.002649	0.0009275	86.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-15	0.003	0.002	0.006	No	15	0.002933	0.0002582	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-18	0.003	0.0008	0.006	No	15	0.002853	0.000568	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MW-22	0.003	0.0016	0.006	No	6	0.002767	0.0005715	83.33	None	No	0.0155	NP (NDs)
Antimony (mg/L)	MW-33	0.003	0.00046	0.006	No	4	0.002365	0.00127	75	None	No	0.0625	NP (NDs)
Antimony (mg/L)	MW-35	0.003	0.00041	0.006	No	4	0.002328	0.001279	50	None	No	0.0625	NP (normality)
Antimony (mg/L)	MW-37D	0.003	0.00079	0.006	No	4	0.002448	0.001105	75	None	No	0.0625	NP (NDs)
Arsenic (mg/L)	HGWC-14	0.005929	0.004126	0.01	No	21	0.005028	0.001634	14.29	None	No	0.01	Param.
Arsenic (mg/L)	HGWC-15	0.005	0.0008	0.01	No	21	0.00435	0.001636	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-16	0.005	0.0012	0.01	No	21	0.004186	0.001732	80.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-17	0.005	0.0012	0.01	No	21	0.00386	0.001856	71.43	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-18	0.006854	0.004826	0.01	No	21	0.00584	0.001838	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-21D	0.005	0.001	0.01	No	11	0.003863	0.001965	72.73	None	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-22	0.005	0.005	0.01	No	10	0.004545	0.001439	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-23D	0.005	0.001	0.01	No	10	0.004182	0.001725	80	None	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-33	0.0078	0.004057	0.01	No	7	0.005929	0.001576	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-34D	0.007178	-0.001178	0.01	No	4	0.003	0.00184	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-35	0.006646	0.003688	0.01	No	6	0.0054	0.001018	16.67	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MW-37D	0.002705	0.0009647	0.01	No	6	0.003392	0.001821	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Barium (mg/L)	HGWC-14	0.0228	0.019	2	No	21	0.02429	0.01748	4.762	None	No	0.01	NP (normality)
Barium (mg/L)	HGWC-15	0.02752	0.01805	2	No	21	0.02279	0.008587	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-16	0.1118	0.1002	2	No	21	0.106	0.01056	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-17	0.02601	0.02326	2	No	21	0.02464	0.00249	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-18	0.0336	0.029	2	No	21	0.03325	0.01577	4.762	None	No	0.01	NP (normality)
Barium (mg/L)	MW-21D	0.07047	0.04299	2	No	11	0.05673	0.01649	0	None	No	0.01	Param.
Barium (mg/L)	MW-22	0.03312	0.01628	2	No	10	0.0247	0.00944	0	None	No	0.01	Param.
Barium (mg/L)	MW-23D	0.06847	0.05213	2	No	10	0.0603	0.009154	0	None	No	0.01	Param.
Barium (mg/L)	MW-33	0.02818	0.02154	2	No	7	0.02486	0.002795	0	None	No	0.01	Param.
Barium (mg/L)	MW-34D	0.04782	0.03068	2	No	4	0.03925	0.003775	0	None	No	0.01	Param.
Barium (mg/L)	MW-35	0.03155	0.02279	2	No	6	0.02717	0.003189	0	None	No	0.01	Param.
Barium (mg/L)	MW-37D	0.1762	0.09717	2	No	6	0.1367	0.02875	0	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-14	0.0005254	0.0004325	0.004	No	19	0.0004789	0.00007937	10.53	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-17	0.0005	0.000067	0.004	No	19	0.0004534	0.0001396	89.47	None	No	0.01	NP (NDs)
Beryllium (mg/L)	HGWC-18	0.003424	0.002783	0.004	No	19	0.003036	0.0007391	5.263	None	x^2	0.01	Param.
Beryllium (mg/L)	MW-22	0.0005	0.000062	0.004	No	10	0.000284	0.0002279	50	None	No	0.011	NP (normality)
Beryllium (mg/L)	MW-33	0.001095	0.0008846	0.004	No	7	0.00099	0.00008869	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-34D	0.000204	0.00001101	0.004	No	4	0.0003038	0.0002293	50	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	MW-35	0.000741	0.000339	0.004	No	6	0.00054	0.0001463	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-37D	0.0005	0.00012	0.004	No	6	0.0004367	0.0001551	83.33	None	No	0.0155	NP (NDs)
Cadmium (mg/L)	HGWC-14	0.0005	0.0001	0.005	No	21	0.0003032	0.0001944	47.62	None	No	0.01	NP (normality)
Cadmium (mg/L)	HGWC-15	0.002181	0.001494	0.005	No	21	0.001872	0.0006855	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	HGWC-17	0.0005	0.00007	0.005	No	21	0.0004795	0.00009383	95.24	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-18	0.002291	0.001648	0.005	No	21	0.00197	0.000583	4.762	None	No	0.01	Param.
Cadmium (mg/L)	MW-22	0.002134	0.001532	0.005	No	10	0.001726	0.0005707	0	None	x^4	0.01	Param.
Cadmium (mg/L)	MW-23D	0.0005615	0.0002617	0.005	No	10	0.000448	0.0001499	50	Kaplan-Meier	x^2	0.01	Param.
Cadmium (mg/L)	MW-33	0.0002151	0.000142	0.005	No	7	0.0001786	0.00003078	0	None	No	0.01	Param.
Cadmium (mg/L)	MW-34D	0.0008342	-0.0001292	0.005	No	4	0.0004875	0.0002006	50	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MW-35	0.002001	0.0006755	0.005	No	6	0.001338	0.0004825	0	None	No	0.01	Param.
Chromium (mg/L)	HGWC-14	0.005	0.00066	0.1	No	19	0.004531	0.001407	89.47	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-15	0.005	0.0012	0.1	No	19	0.004322	0.001616	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-16	0.005	0.0021	0.1	No	19	0.004379	0.001503	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-17	0.005	0.0018	0.1	No	19	0.004381	0.001485	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-18	0.005	0.00063	0.1	No	19	0.004291	0.001683	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-21D	0.005	0.00074	0.1	No	11	0.00421	0.001758	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	MW-22	0.005	0.00075	0.1	No	10	0.004115	0.001868	80	None	No	0.011	NP (NDs)

Confidence Intervals - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	MW-23D	0.005	0.00086	0.1	No	10	0.004169	0.001752	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	MW-33	0.005	0.00069	0.1	No	7	0.004384	0.001629	85.71	None	No	0.008	NP (NDs)
Chromium (mg/L)	MW-34D	0.0059	0.005	0.1	No	4	0.005225	0.00045	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	MW-35	0.005	0.00079	0.1	No	6	0.003603	0.002164	66.67	None	No	0.0155	NP (NDs)
Chromium (mg/L)	MW-37D	0.005	0.0014	0.1	No	6	0.004367	0.001456	66.67	None	No	0.0155	NP (NDs)
Cobalt (mg/L)	HGWC-14	0.03033	0.0244	0.038	No	21	0.02679	0.006468	4.762	None	x^2	0.01	Param.
Cobalt (mg/L)	HGWC-15	0.04475	0.02675	0.038	No	21	0.03575	0.01632	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-16	0.005	0.00037	0.038	No	21	0.004555	0.001406	90.48	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-17	0.01601	0.01342	0.038	No	21	0.01453	0.002742	0	None	x^2	0.01	Param.
Cobalt (mg/L)	**HGWC-18**	**0.187**	**0.1605**	**0.038**	**Yes**	**21**	**0.1738**	**0.02406**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-21D	0.005	0.005	0.038	No	11	0.004576	0.001405	90.91	None	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-22	0.03809	0.02491	0.038	No	10	0.0315	0.007382	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-23D	0.001172	0.000954	0.038	No	10	0.001063	0.0001222	0	None	No	0.01	Param.
Cobalt (mg/L)	**MW-33**	**0.05716**	**0.04884**	**0.038**	**Yes**	**8**	**0.053**	**0.003928**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-34D	0.01376	0.002438	0.038	No	4	0.0081	0.002494	0	None	No	0.01	Param.
Cobalt (mg/L)	**MW-35**	**0.09914**	**0.08253**	**0.038**	**Yes**	**6**	**0.09083**	**0.006047**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-37D	0.005	0.00048	0.038	No	6	0.003663	0.002096	66.67	None	No	0.0155	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	HGWC-14	1.595	1.083	5	No	21	1.339	0.4637	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-15	0.9002	0.4436	5	No	21	0.6719	0.4139	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-16	0.9616	0.5157	5	No	21	0.7387	0.4041	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-17	1.027	0.6789	5	No	21	0.853	0.3157	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-18	2.219	1.641	5	No	21	1.93	0.5232	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-21D	1.121	0.4539	5	No	11	0.799	0.4529	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-22	1.148	0.3216	5	No	10	0.7348	0.4631	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-23D	1.113	0.6168	5	No	10	0.865	0.2782	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-33	2.631	0.8717	5	No	7	1.751	0.7406	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-34D	1.755	-0.2986	5	No	4	0.7283	0.4523	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-35	3.35	0.3043	5	No	6	1.827	1.109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-37D	1.717	-0.009304	5	No	6	0.8538	0.6283	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-14	0.2023	0.07774	4	No	22	0.176	0.1573	22.73	Kaplan-Meier	x^(1/3)	0.01	Param.
Fluoride (mg/L)	HGWC-15	0.17	0.09	4	No	22	0.1415	0.1193	45.45	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-16	0.23	0.059	4	No	22	0.1567	0.1176	54.55	None	No	0.01	NP (NDs)
Fluoride (mg/L)	HGWC-17	0.16	0.062	4	No	22	0.1641	0.2105	31.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-18	0.6327	0.3991	4	No	22	0.5159	0.2175	4.545	None	No	0.01	Param.
Fluoride (mg/L)	MW-21D	0.1	0.1	4	No	11	0.1	4.5e-10	90.91	None	No	0.006	NP (NDs)
Fluoride (mg/L)	MW-22	0.13	0.1	4	No	10	0.121	0.05666	80	None	No	0.011	NP (NDs)
Fluoride (mg/L)	MW-23D	0.14	0.1	4	No	10	0.11	0.0216	80	None	No	0.011	NP (NDs)
Fluoride (mg/L)	MW-33	0.29	0.1315	4	No	8	0.2088	0.08951	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	MW-34D	0.09507	0.0376	4	No	4	0.07475	0.02106	25	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	MW-35	0.0912	0.0468	4	No	6	0.07417	0.02053	16.67	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	MW-37D	0.093	0.043	4	No	6	0.068	0.0182	0	None	No	0.01	Param.
Lead (mg/L)	HGWC-14	0.001704	0.001392	0.015	No	19	0.001548	0.0002664	5.263	None	No	0.01	Param.
Lead (mg/L)	HGWC-15	0.001	0.0002	0.015	No	19	0.0008118	0.0003753	73.68	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-16	0.001	0.000094	0.015	No	19	0.0005802	0.0004558	52.63	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-17	0.001	0.000088	0.015	No	19	0.0006213	0.0004568	57.89	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-18	0.001431	0.001157	0.015	No	19	0.001294	0.0002339	5.263	None	No	0.01	Param.
Lead (mg/L)	MW-21D	0.001	0.000048	0.015	No	11	0.0007116	0.000433	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-22	0.001	0.000094	0.015	No	10	0.000723	0.0004463	70	None	No	0.011	NP (NDs)
Lead (mg/L)	MW-23D	0.001	0.00016	0.015	No	10	0.0008211	0.000378	80	None	No	0.011	NP (NDs)
Lead (mg/L)	MW-33	0.001793	0.001514	0.015	No	7	0.001657	0.0001272	0	None	x^3	0.01	Param.
Lead (mg/L)	MW-34D	0.001	0.00087	0.015	No	4	0.0009675	0.000065	75	None	No	0.0625	NP (NDs)
Lead (mg/L)	MW-35	0.0009972	0.0001828	0.015	No	6	0.0007267	0.0003393	33.33	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	MW-37D	0.001254	-0.000294	0.015	No	6	0.000862	0.000564	50	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	HGWC-15	0.00947	0.002331	0.048	No	21	0.01029	0.009755	28.57	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	HGWC-16	0.0042	0.0029	0.048	No	21	0.004043	0.002602	4.762	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	HGWC-17	0.015	0.0011	0.048	No	21	0.007745	0.00709	47.62	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-18	0.01439	0.01219	0.048	No	21	0.01329	0.001993	0	None	No	0.01	Param.
Lithium (mg/L)	MW-21D	0.02521	0.02133	0.048	No	11	0.02327	0.002328	0	None	No	0.01	Param.
Lithium (mg/L)	MW-22	0.0015	0.0011	0.048	No	10	0.00131	0.0002726	0	None	No	0.011	NP (normality)
Lithium (mg/L)	MW-23D	0.002642	0.002158	0.048	No	10	0.0024	0.0002708	0	None	No	0.01	Param.
Lithium (mg/L)	MW-33	0.001162	0.0008952	0.048	No	7	0.001029	0.0001123	0	None	No	0.01	Param.
Lithium (mg/L)	MW-34D	0.003048	0.0001522	0.048	No	4	0.0016	0.0006377	0	None	No	0.01	Param.
Lithium (mg/L)	MW-35	0.004694	0.003473	0.048	No	6	0.004083	0.0004446	0	None	No	0.01	Param.
Lithium (mg/L)	MW-37D	0.03755	0.02812	0.048	No	6	0.03283	0.00343	0	None	No	0.01	Param.
Mercury (mg/L)	HGWC-18	0.0002	0.00006	0.002	No	13	0.00015	0.00006683	61.54	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	HGWC-15	0.01	0.0007	0.1	No	19	0.009511	0.002134	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-21D	0.03102	0.01654	0.1	No	11	0.02427	0.0101	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	MW-22	0.01	0.01	0.1	No	10	0.009013	0.003121	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	MW-23D	0.005029	0.002108	0.1	No	10	0.00368	0.002326	10	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	MW-37D	0.0228	0.005969	0.1	No	6	0.01438	0.006125	0	None	No	0.01	Param.
Selenium (mg/L)	HGWC-14	0.01256	0.006717	0.05	No	21	0.009639	0.005295	0	None	No	0.01	Param.
Selenium (mg/L)	HGWC-15	0.005	0.0041	0.05	No	21	0.004386	0.001446	80.95	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-16	0.005	0.000089	0.05	No	21	0.004766	0.001072	95.24	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-17	0.005	0.0023	0.05	No	21	0.004466	0.001385	85.71	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-18	0.03229	0.01667	0.05	No	21	0.02448	0.01416	4.762	None	No	0.01	Param.
Selenium (mg/L)	MW-22	0.005	0.005	0.05	No	10	0.0047	0.0009487	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	MW-33	0.03151	0.00655	0.05	No	7	0.01811	0.01199	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	MW-34D	0.005	0.0025	0.05	No	4	0.004375	0.00125	75	None	No	0.0625	NP (NDs)
Selenium (mg/L)	MW-35	0.02994	0.006285	0.05	No	6	0.01655	0.01042	0	None	x^(1/3)	0.01	Param.
Thallium (mg/L)	HGWC-14	0.0003	0.00027	0.002	No	21	0.0002936	0.00003129	0	None	No	0.01	NP (normality)
Thallium (mg/L)	HGWC-17	0.001	0.00012	0.002	No	21	0.0007048	0.0004279	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	HGWC-18	0.001	0.00016	0.002	No	21	0.0005252	0.0004218	42.86	None	No	0.01	NP (normality)
Thallium (mg/L)	MW-33	0.0003547	0.0002389	0.002	No	7	0.0002957	0.00005094	0	None	sqrt(x)	0.01	Param.
Thallium (mg/L)	MW-34D	0.001	0.00015	0.002	No	4	0.0007875	0.000425	75	None	No	0.0625	NP (NDs)
Thallium (mg/L)	MW-35	0.001	0.00013	0.002	No	6	0.000855	0.0003552	83.33	None	No	0.0155	NP (NDs)

Appendix IV Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:57 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	**HGWC-18**	**-0.008288**	**-88**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix IV Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:57 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	HGWA-1 (bg)	0	18	87	No	21	95.24	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-2 (bg)	-0.0008265	-47	-87	No	21	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-4 (bg)	0	-81	-87	No	21	71.43	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-42D (bg)	0	3	21	No	8	87.5	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-43D (bg)	0	0	21	No	8	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-44D (bg)	0	0	21	No	8	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-5 (bg)	0	-14	-87	No	21	23.81	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-6 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	**HGWC-18**	**-0.008288**	**-88**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	MW-33	-0.001496	-2	-21	No	8	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	MW-35	0.001103	1	14	No	6	0	n/a	n/a	0.01	NP

FIGURE A.

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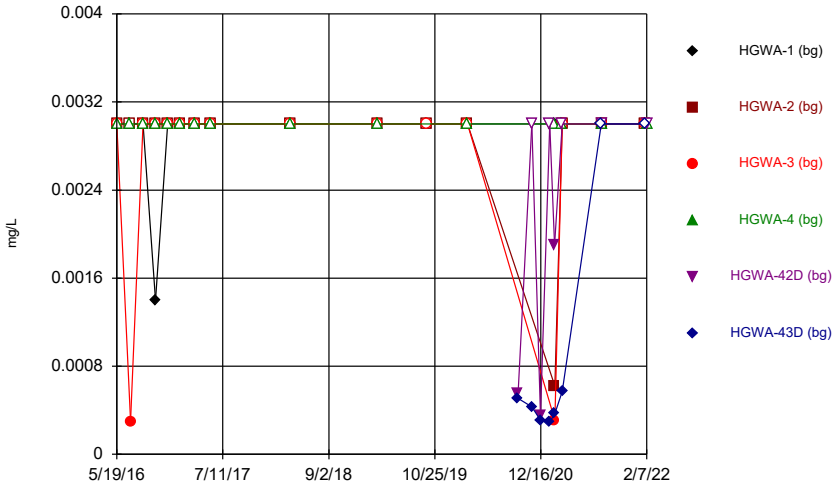

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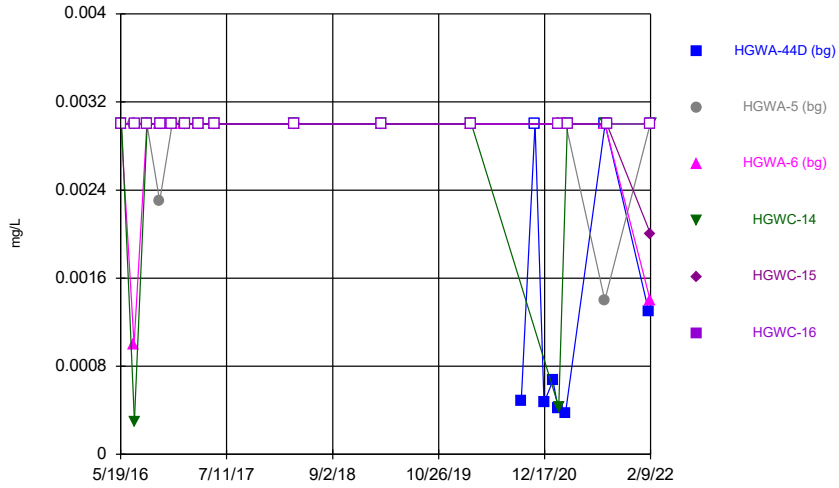

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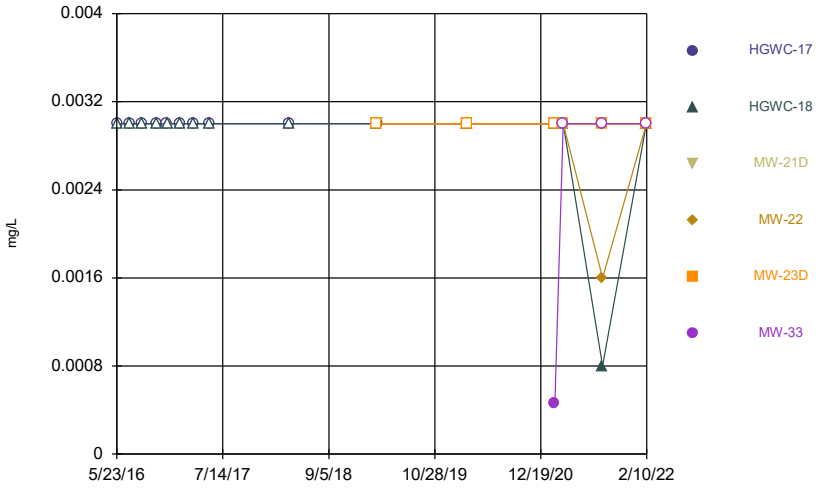

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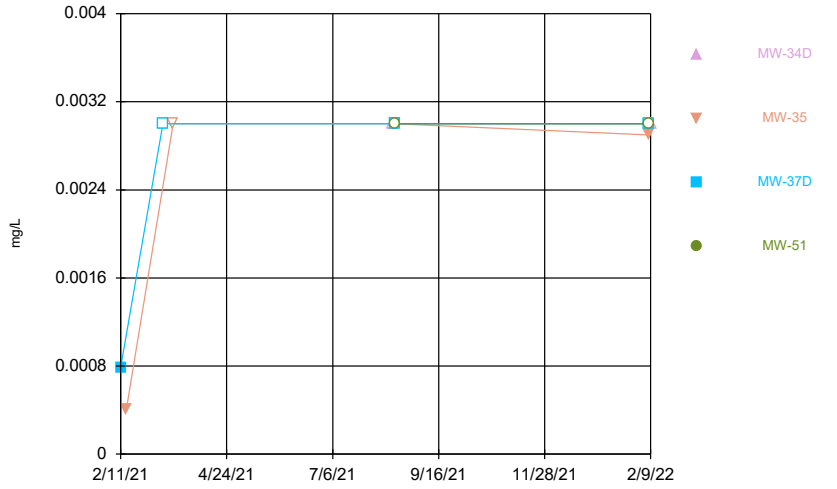

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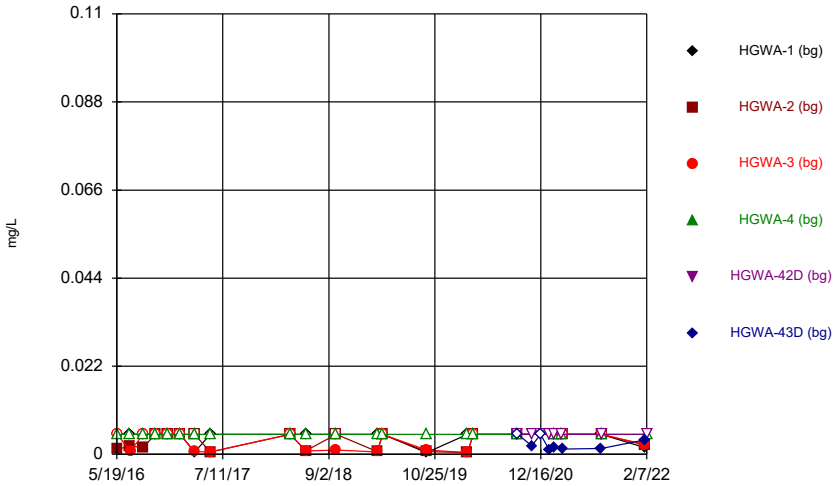

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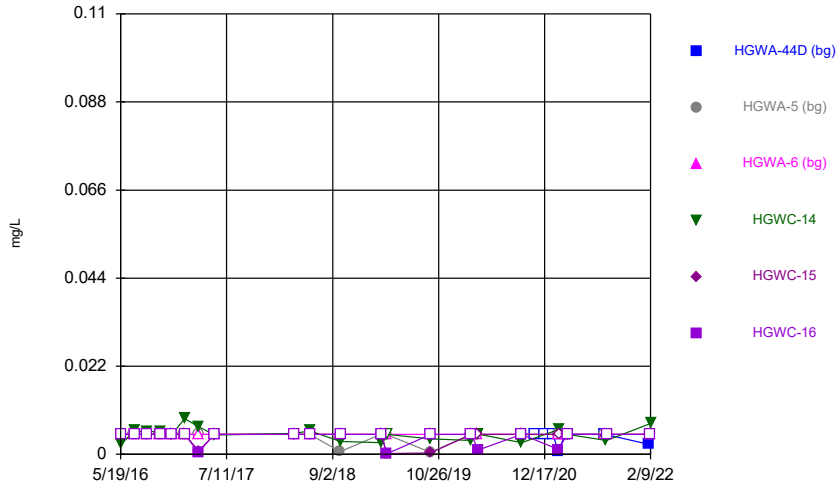

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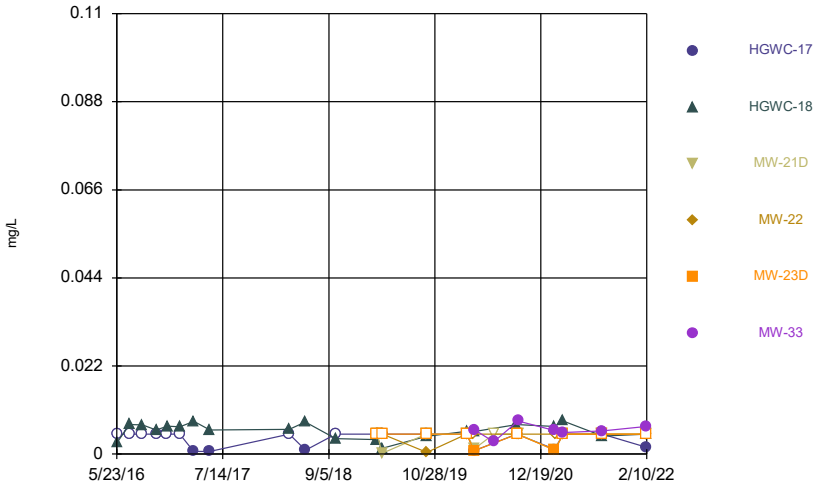

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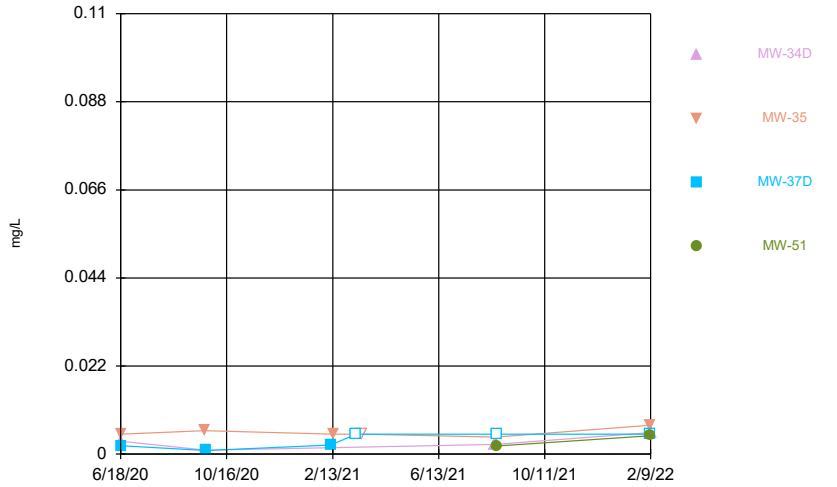

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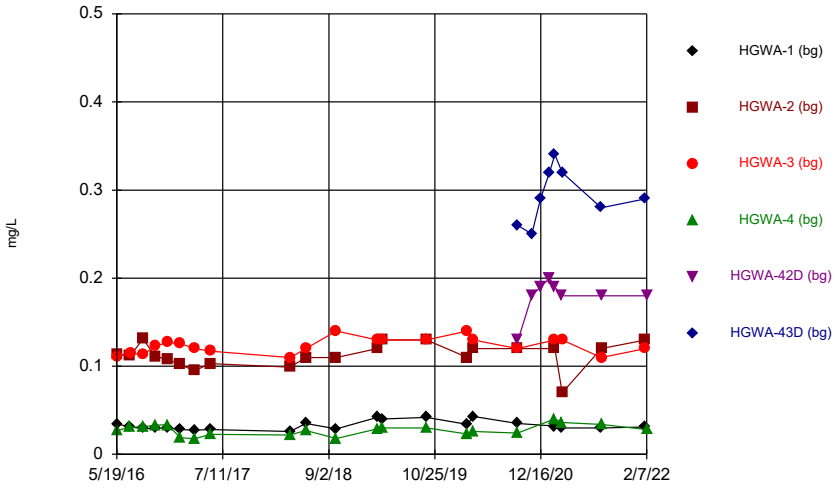

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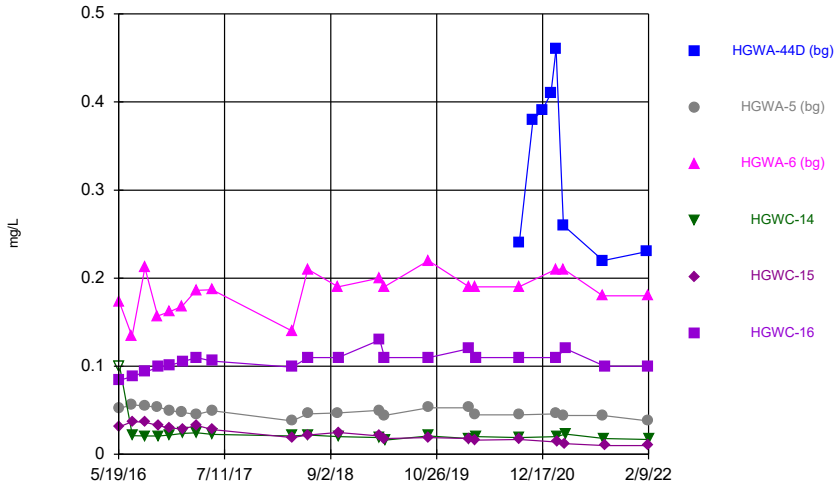

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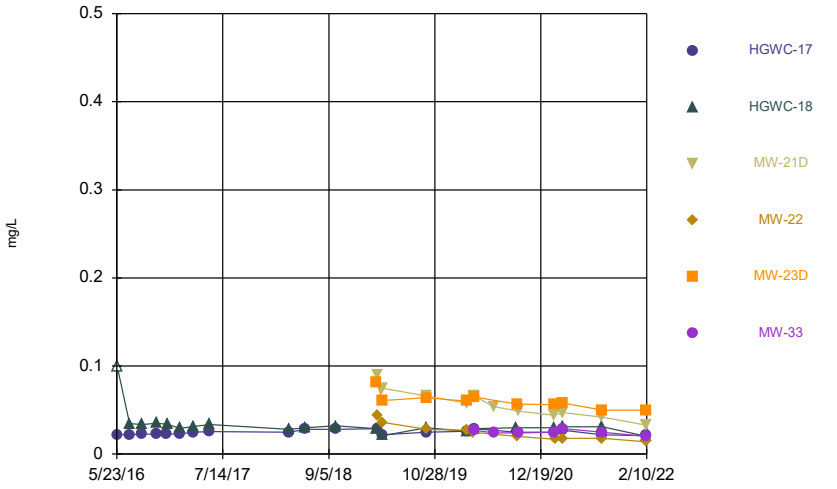

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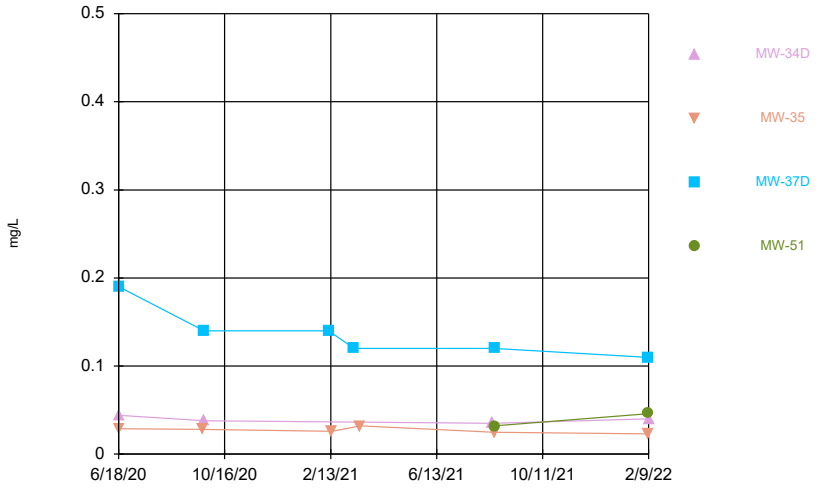

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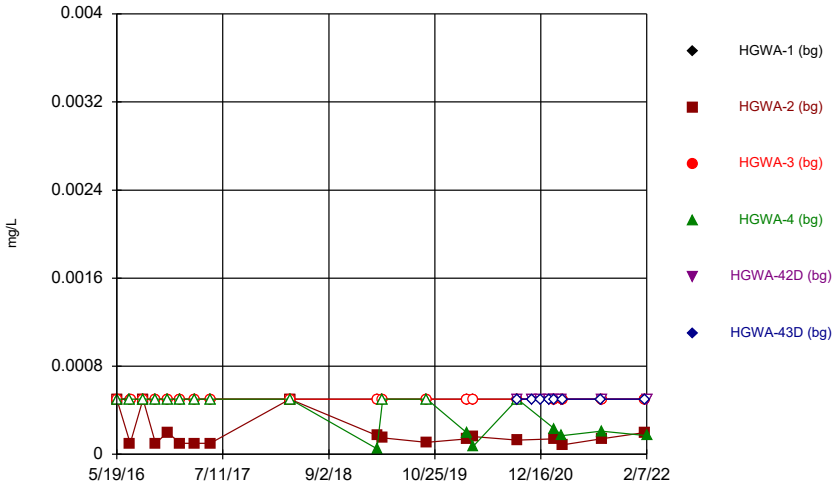

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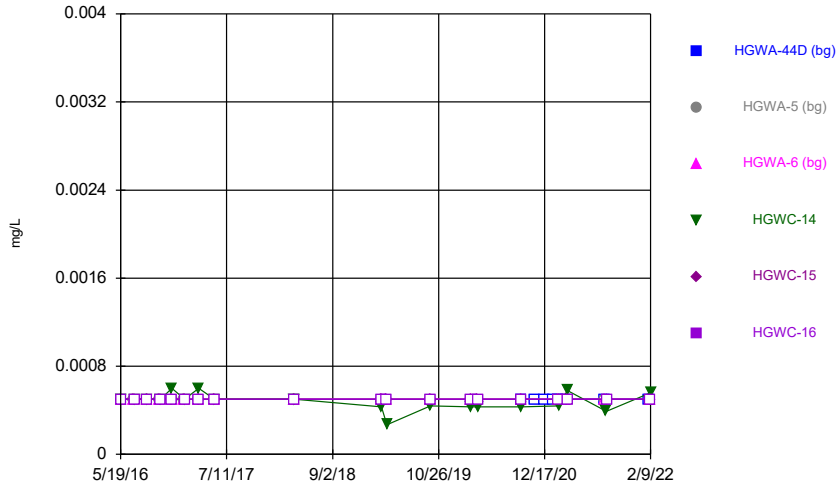

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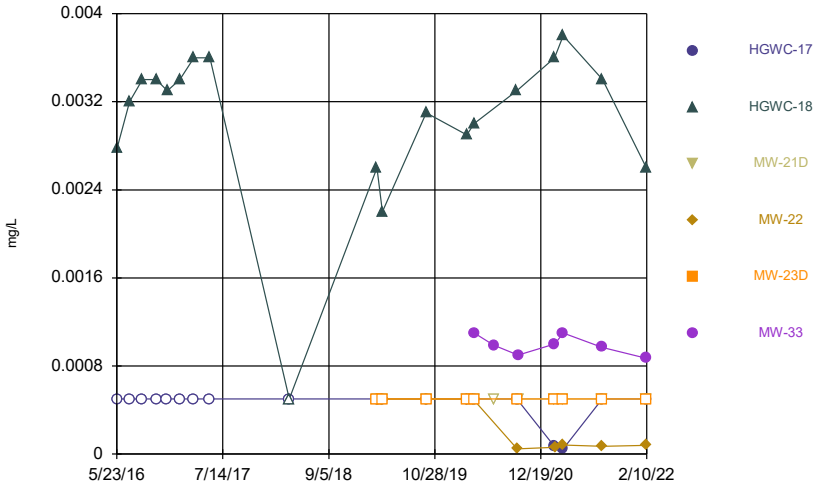

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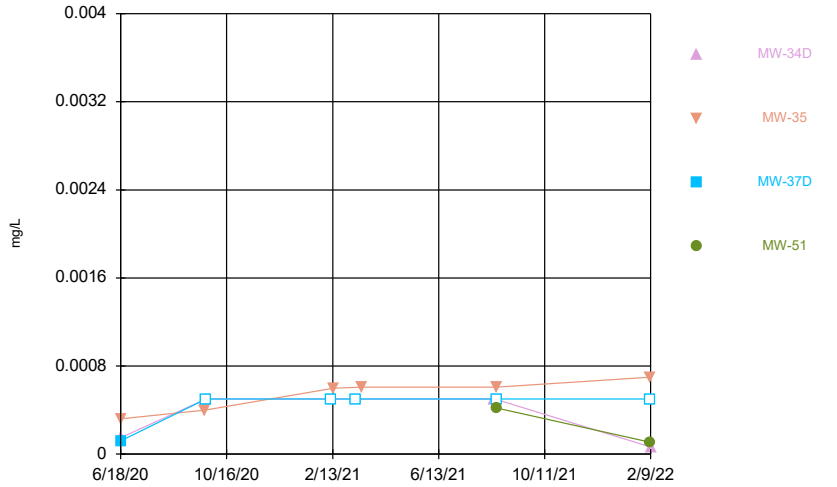

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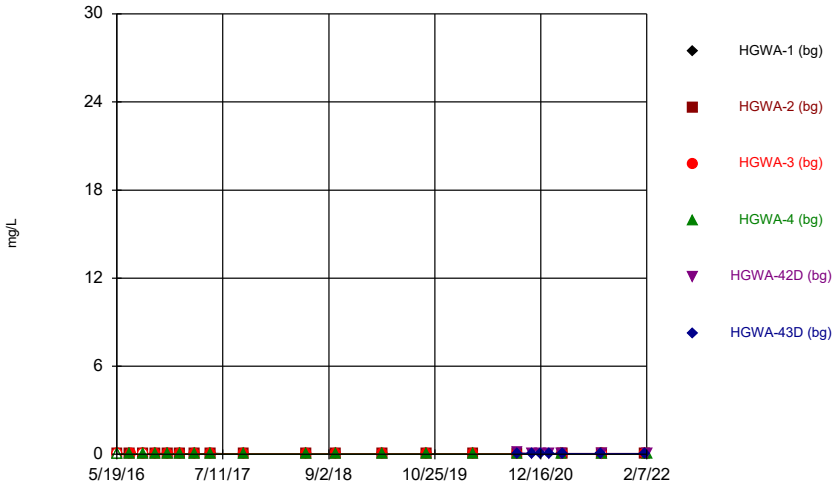

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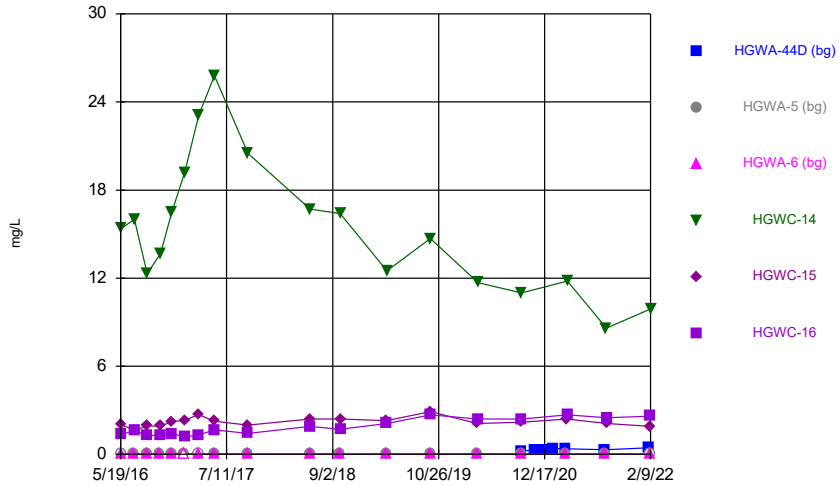

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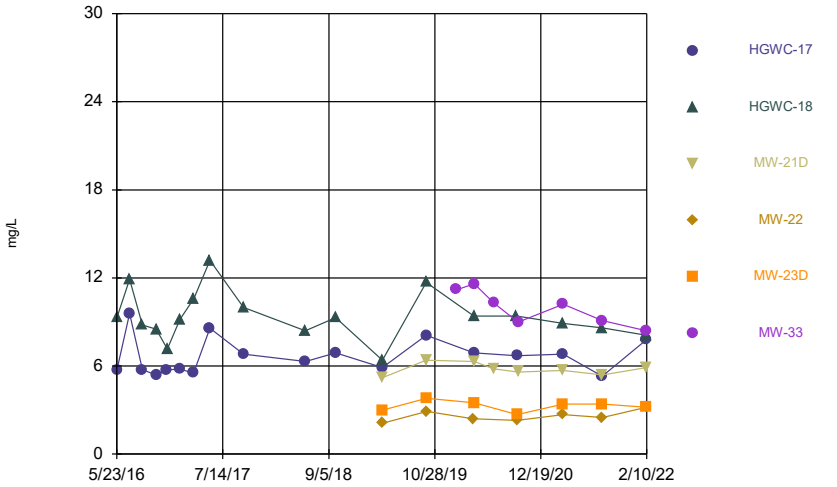

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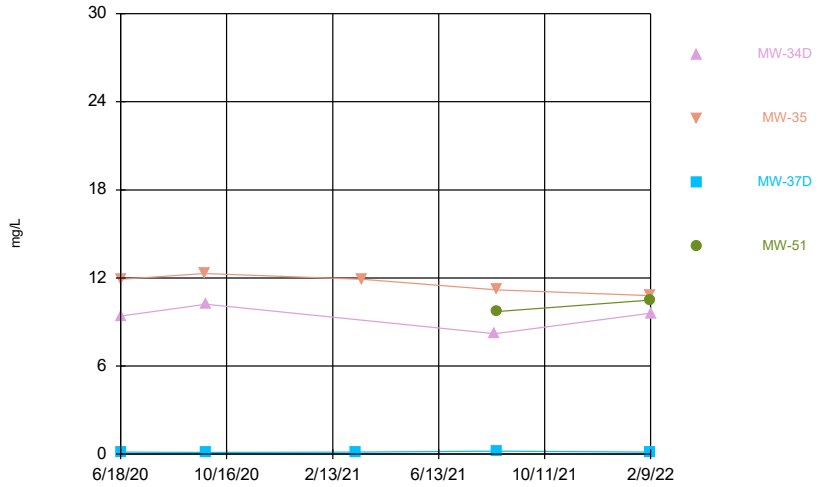

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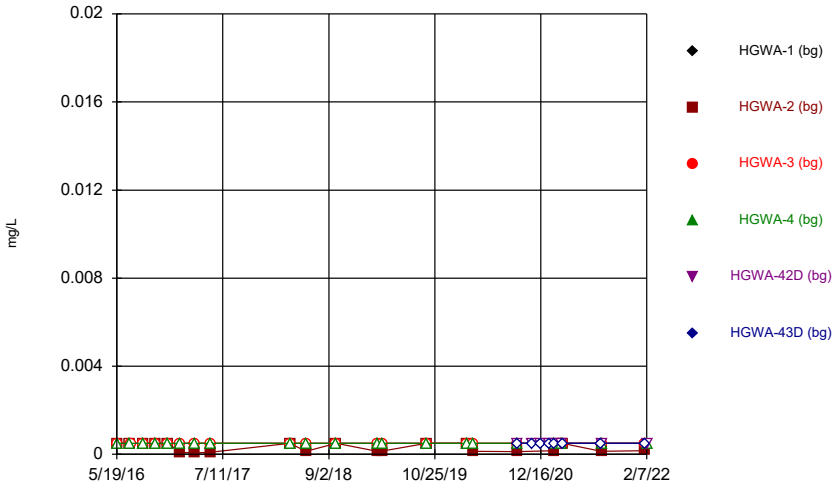

Constituent: Cadmium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

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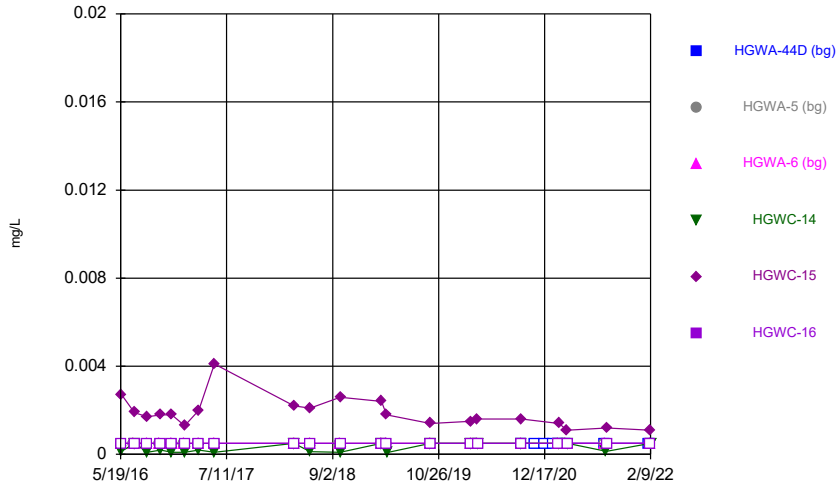
Hollow symbols indicate censored values.

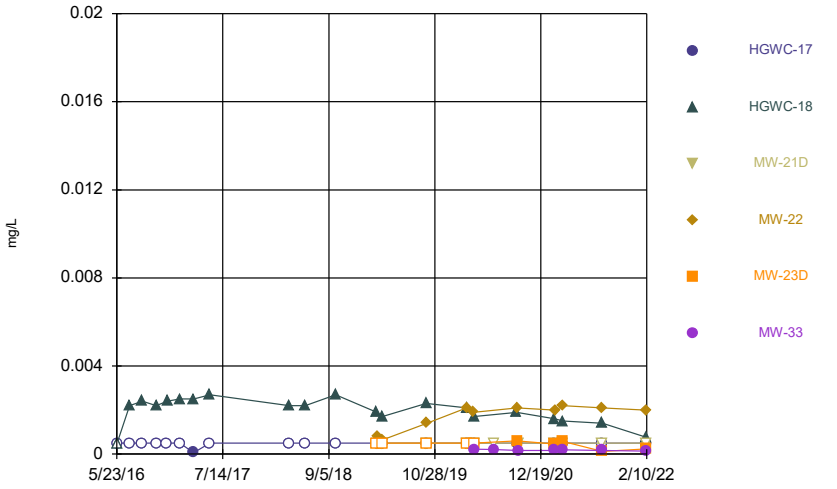
Time Series



Constituent: Cadmium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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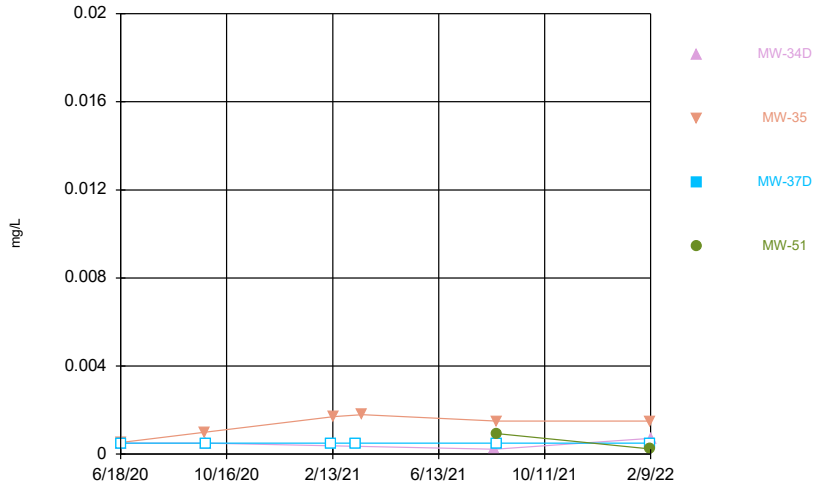
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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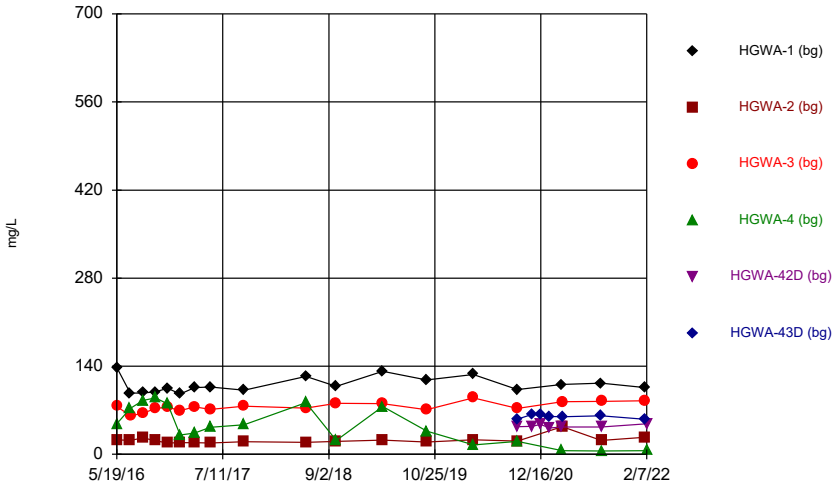
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



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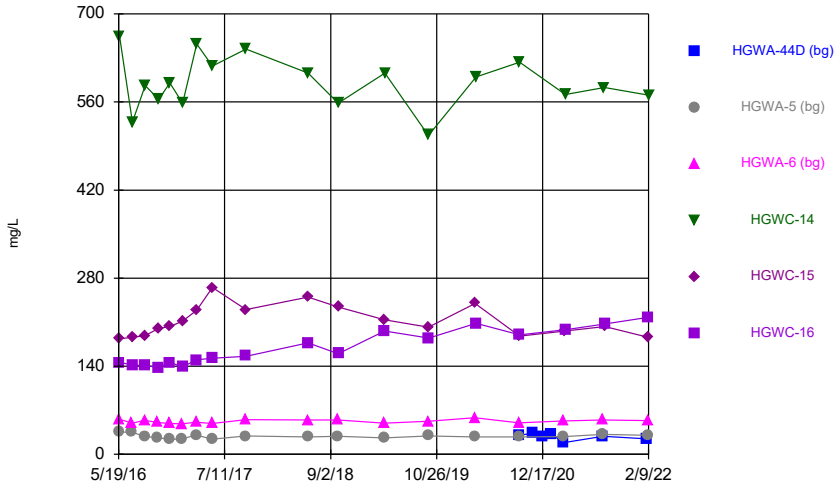
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



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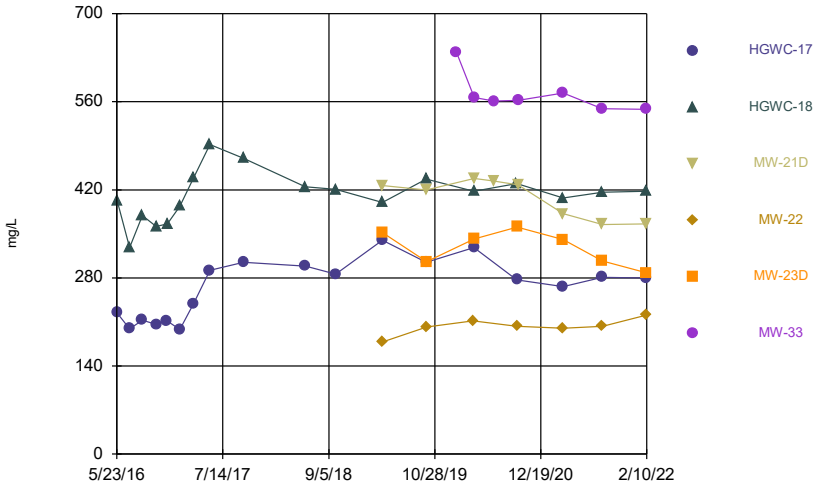
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



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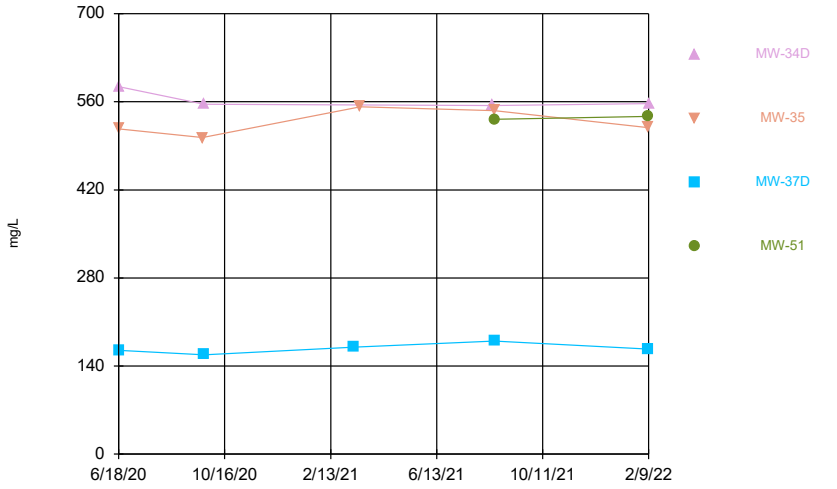
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



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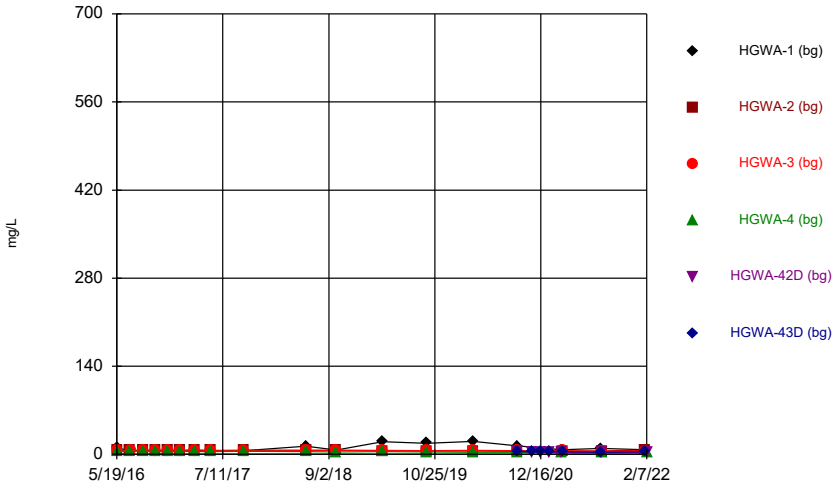
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series

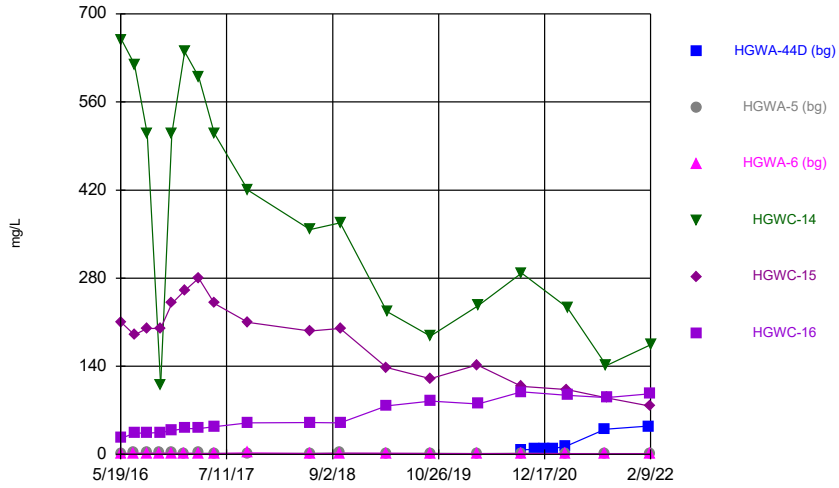


Constituent: Chloride Analysis Run 4/26/2022 4:28 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



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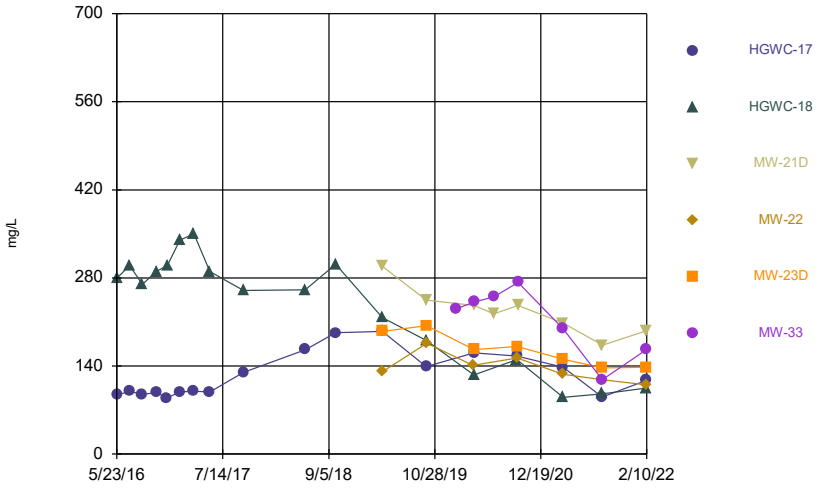
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



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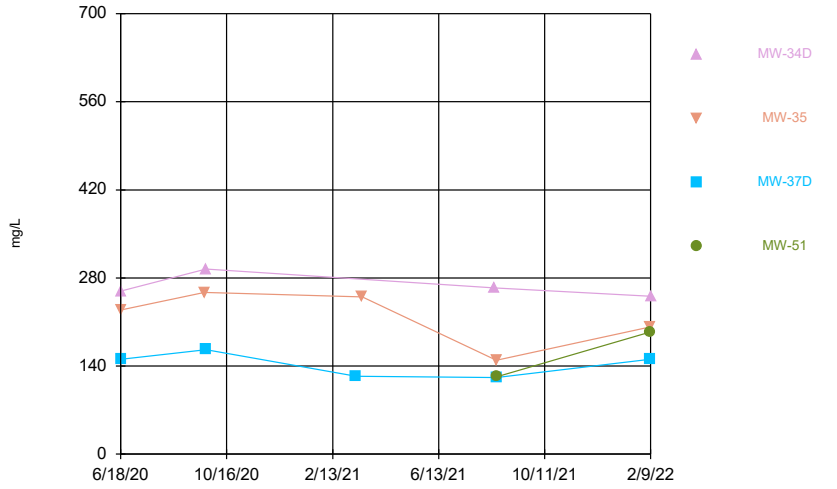
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series

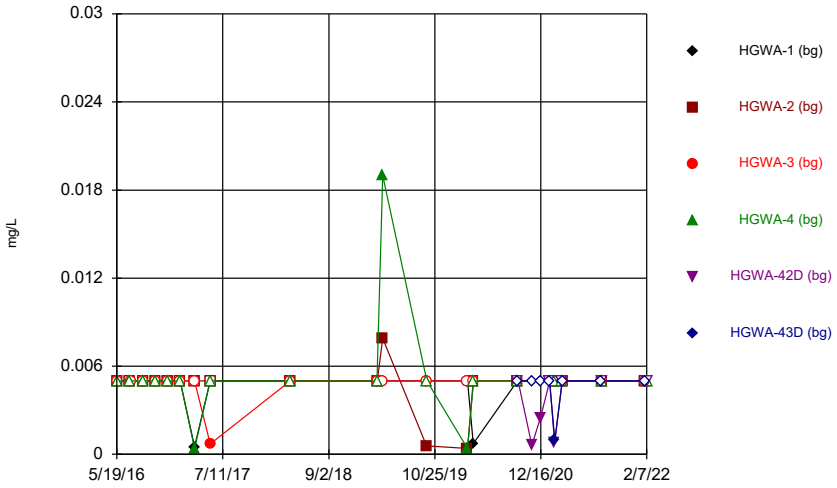


Constituent: Chloride Analysis Run 4/26/2022 4:28 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

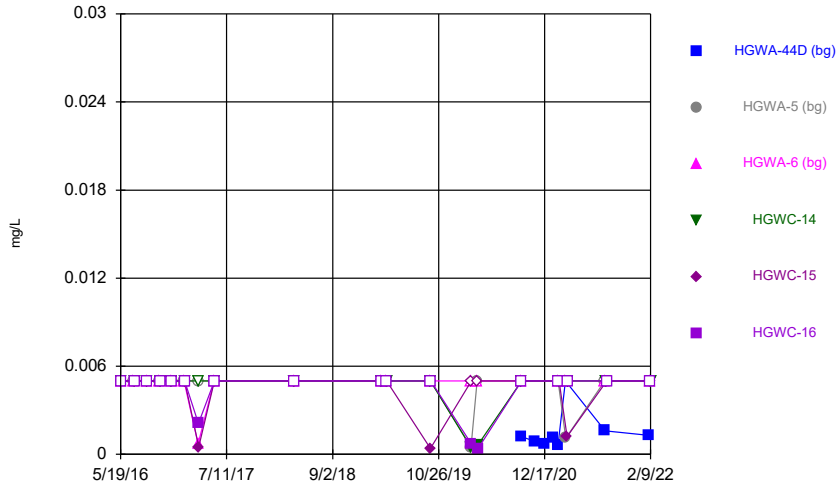
Time Series



Constituent: Chromium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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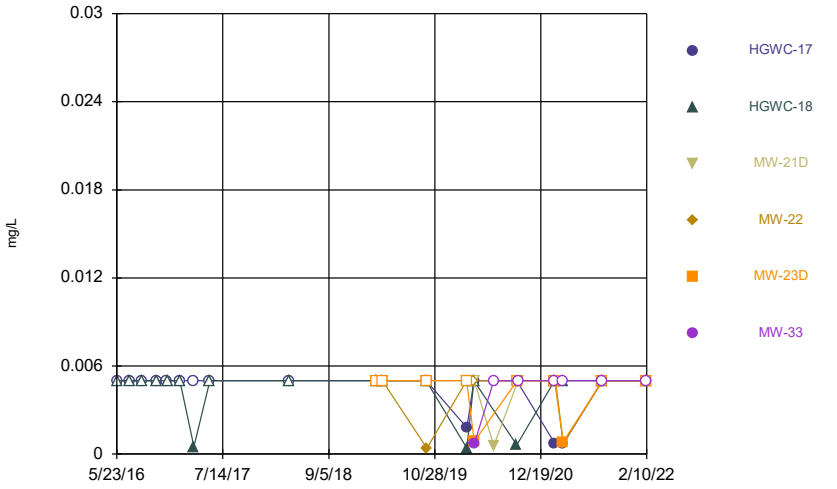
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

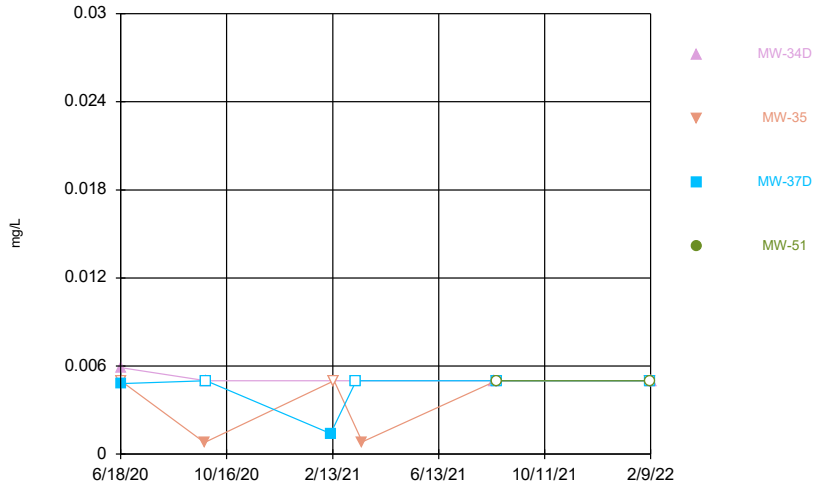
Time Series



Constituent: Chromium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

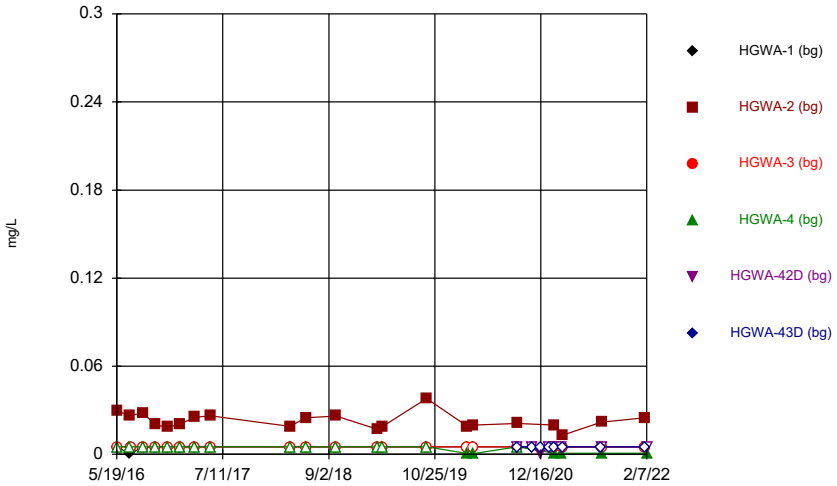
Time Series



Constituent: Chromium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

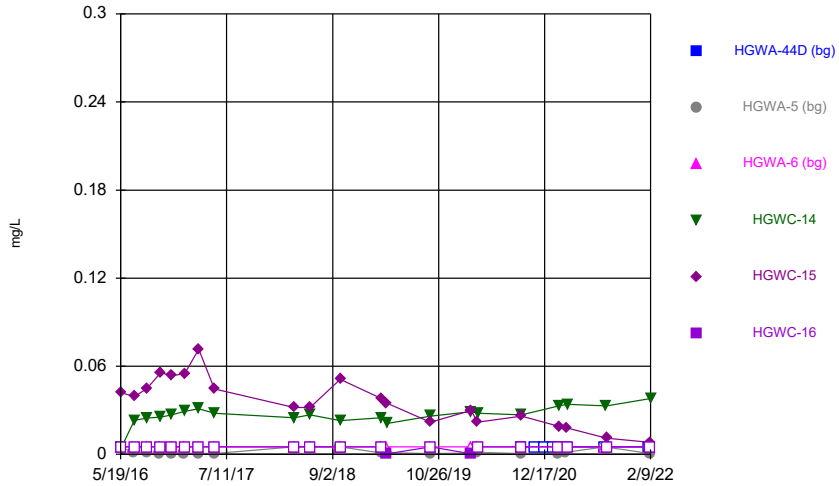
Time Series



Constituent: Cobalt Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

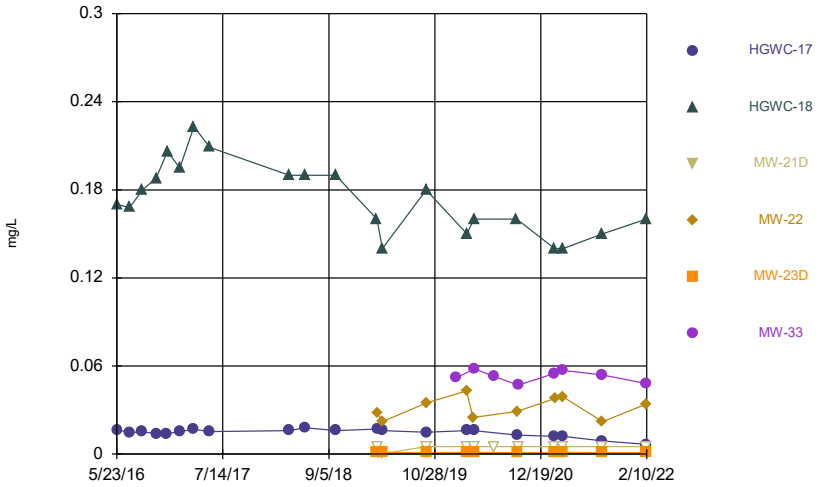
Time Series



Constituent: Cobalt Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

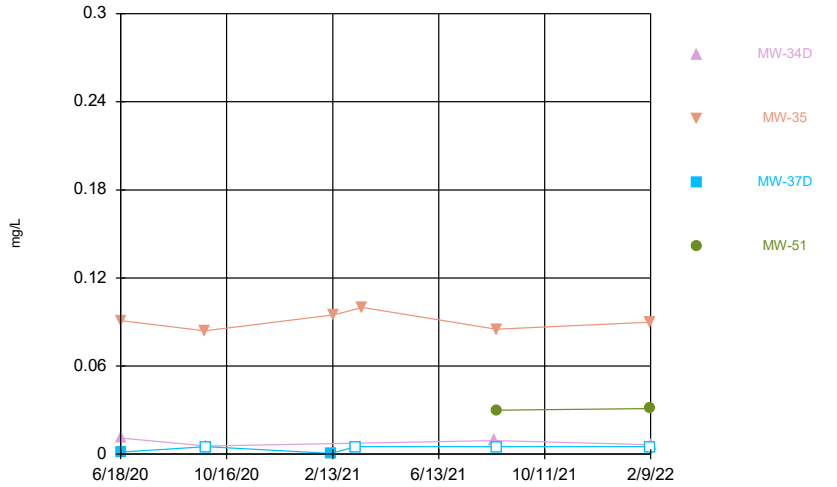
Time Series



Constituent: Cobalt Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

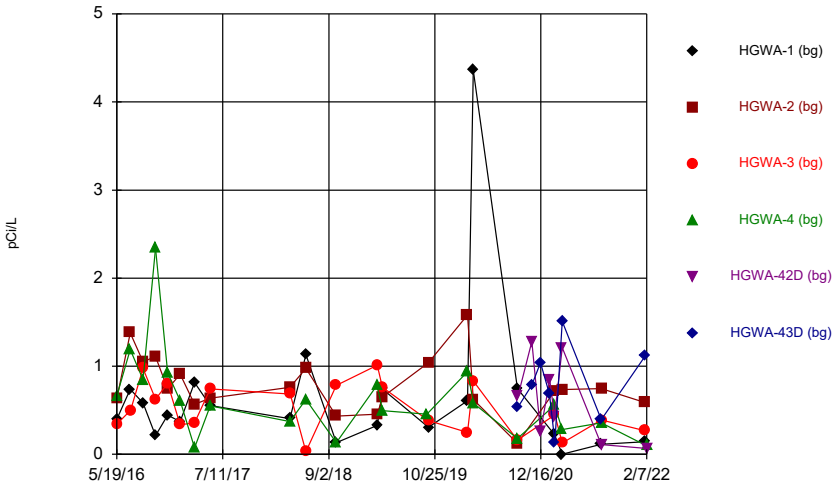
Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

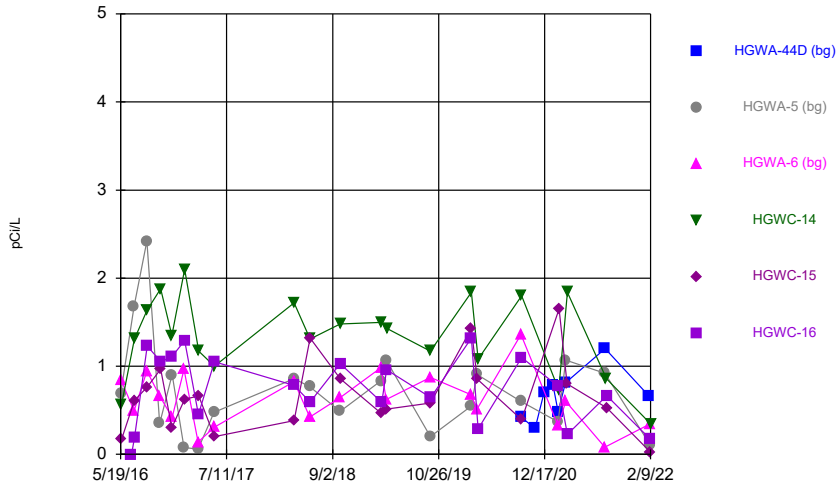
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

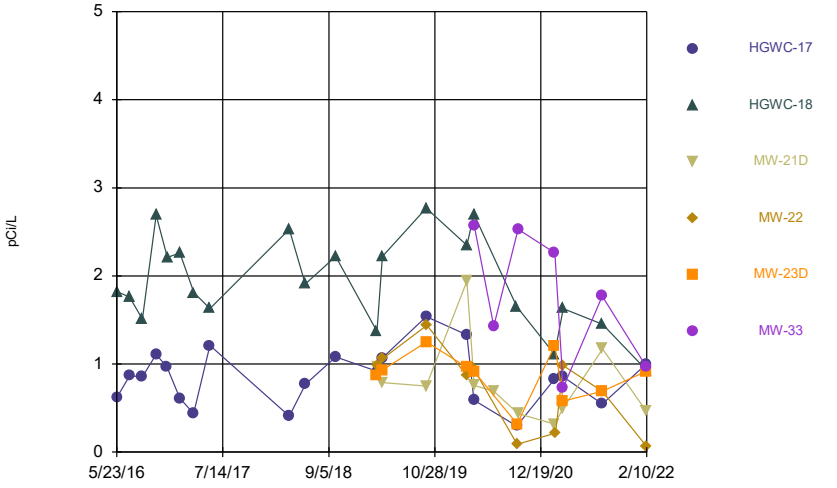
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

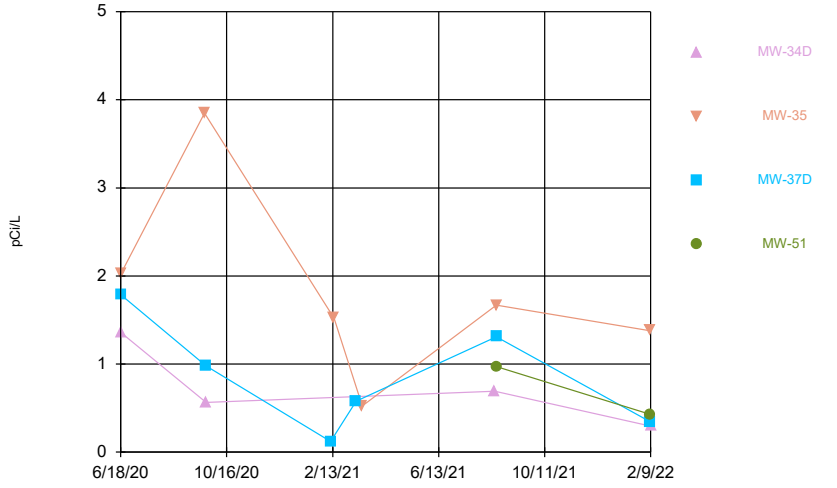
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

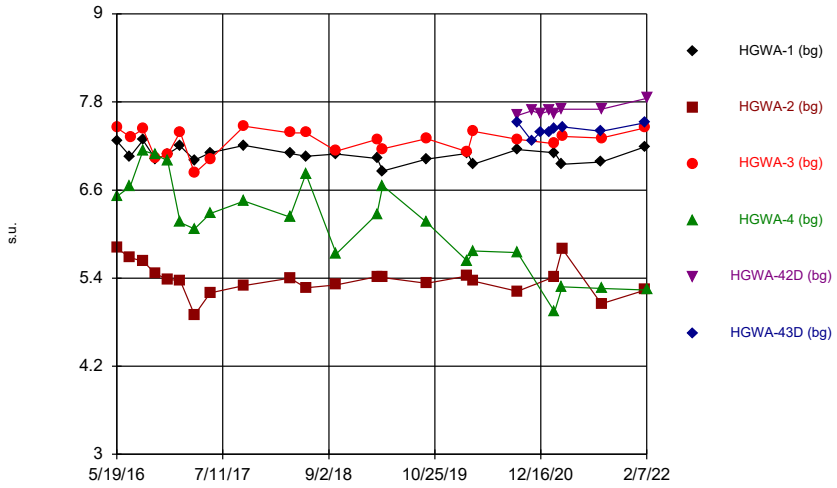
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series

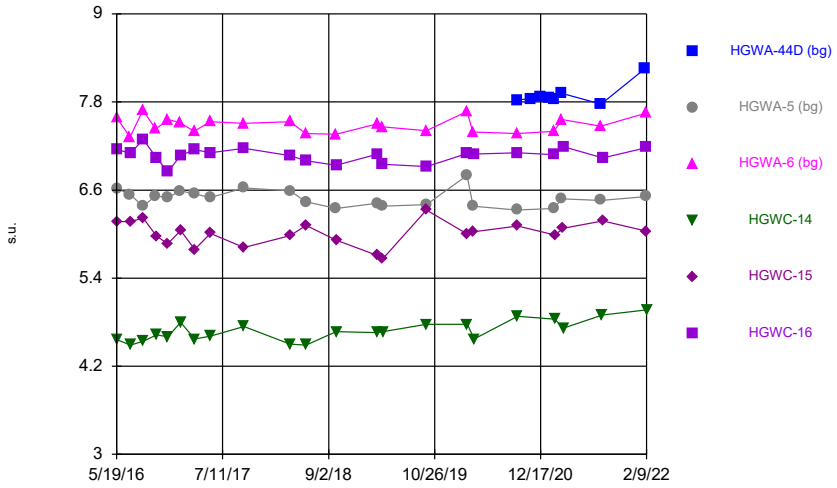


Constituent: Field pH Analysis Run 4/26/2022 4:28 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series

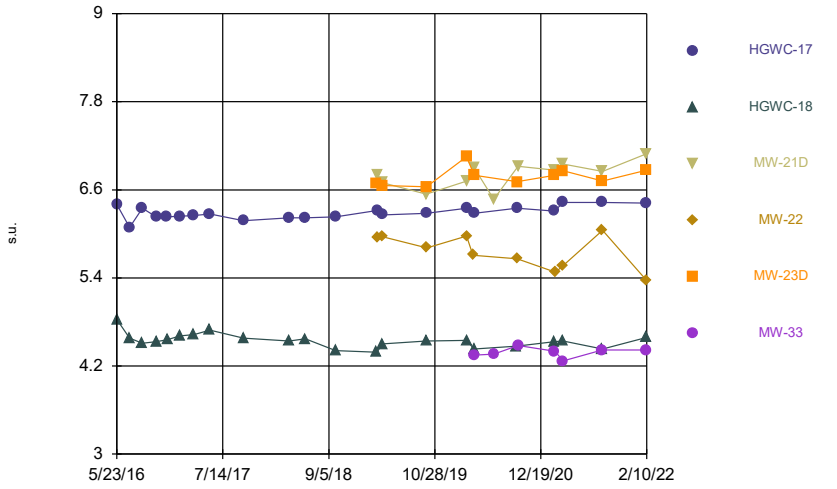


Constituent: Field pH Analysis Run 4/26/2022 4:28 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series

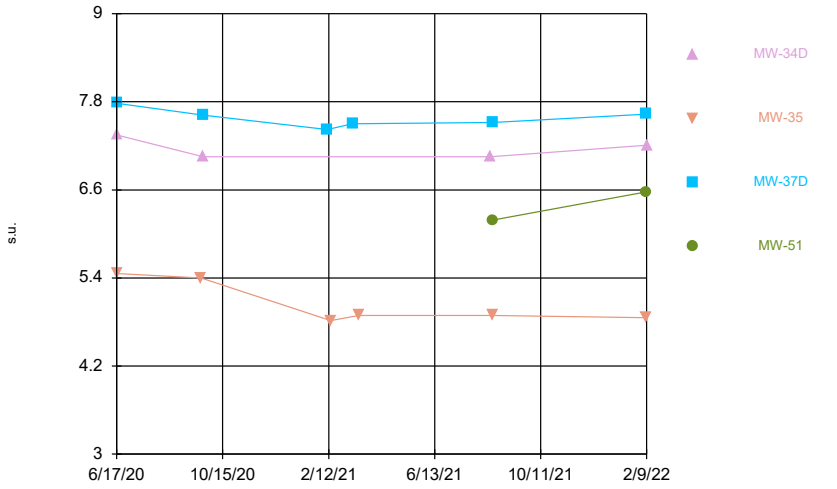


Constituent: Field pH Analysis Run 4/26/2022 4:28 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series

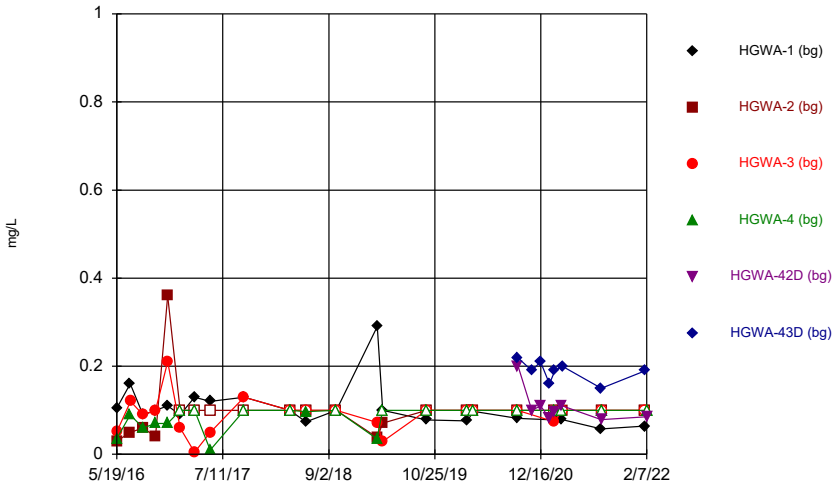


Constituent: Field pH Analysis Run 4/26/2022 4:28 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

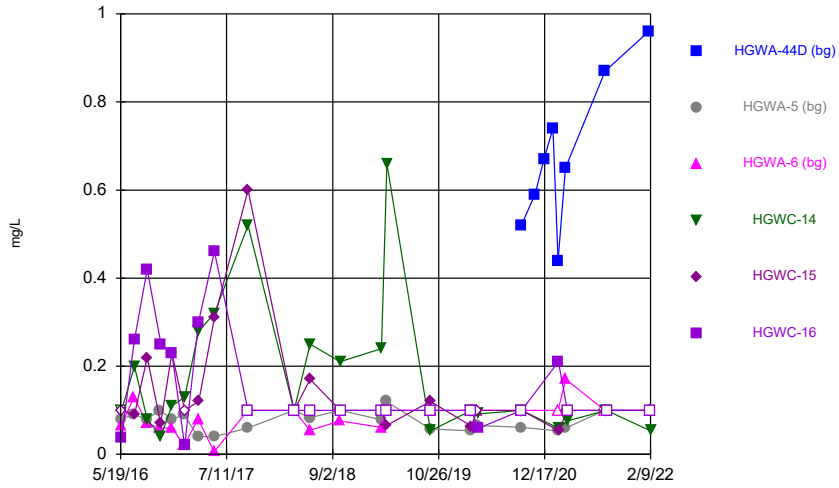
Time Series



Constituent: Fluoride Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

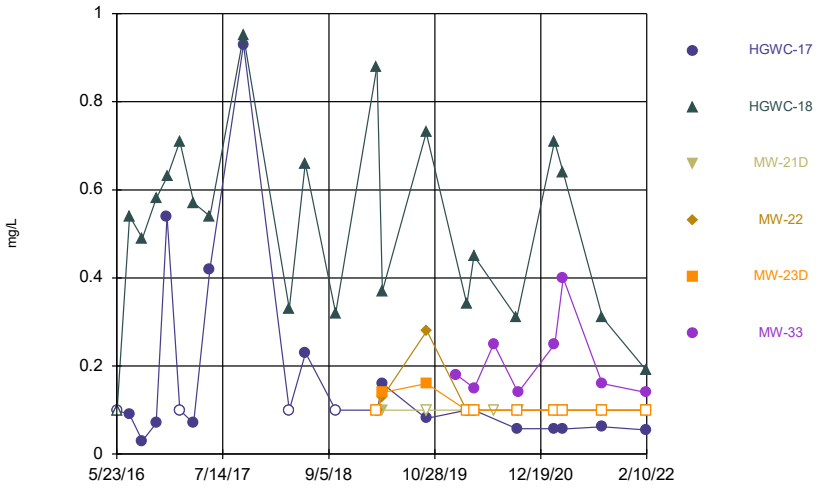
Time Series



Constituent: Fluoride Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

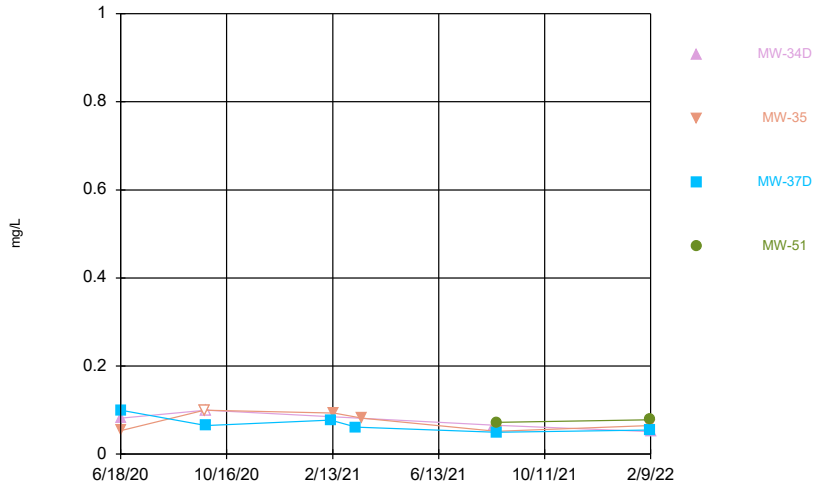
Time Series



Constituent: Fluoride Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

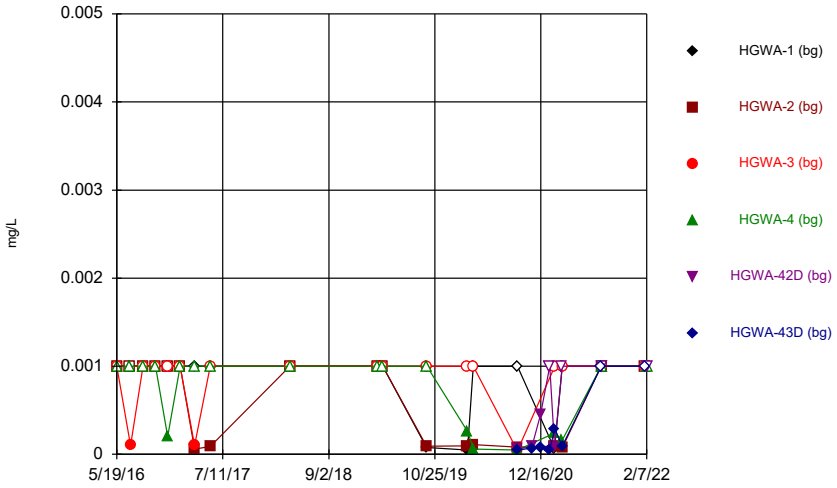
Time Series



Constituent: Fluoride Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

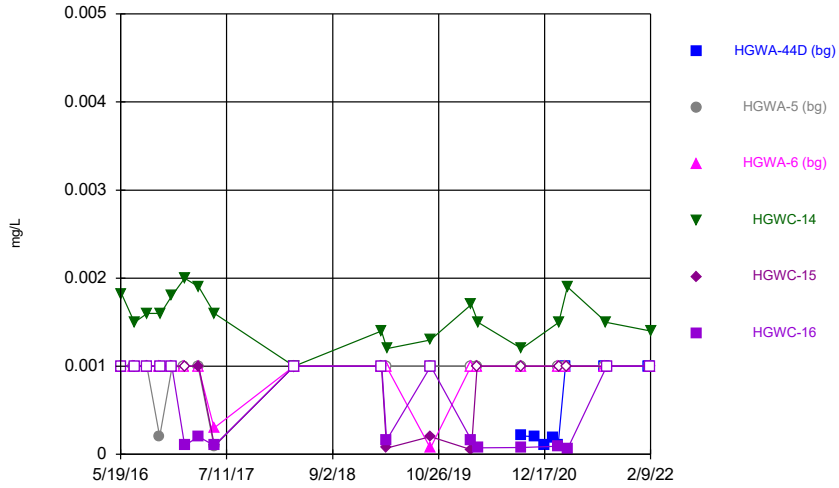
Time Series



Constituent: Lead Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

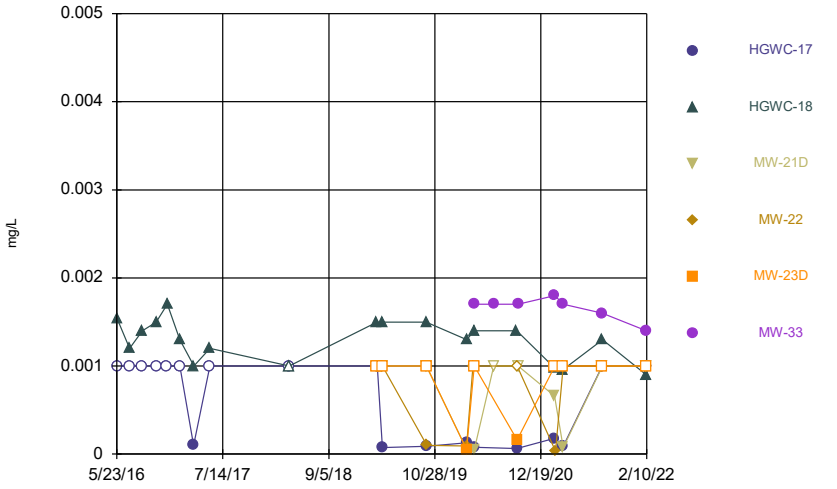
Time Series



Constituent: Lead Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

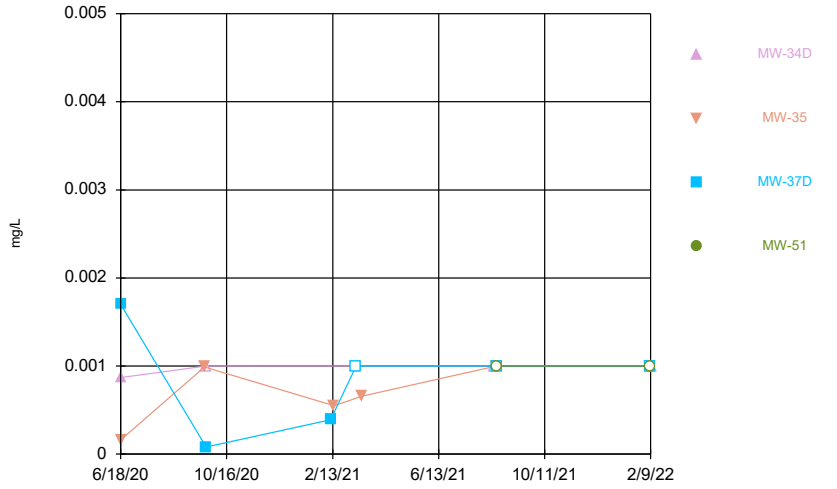
Time Series



Constituent: Lead Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

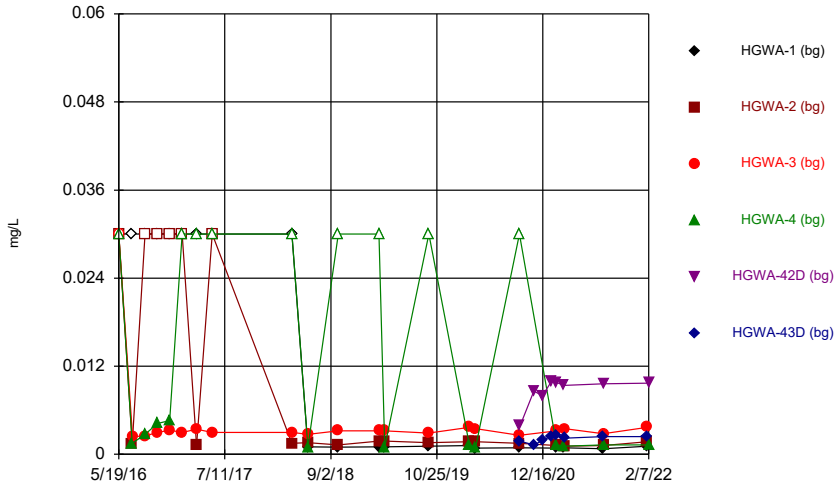
Time Series



Constituent: Lead Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

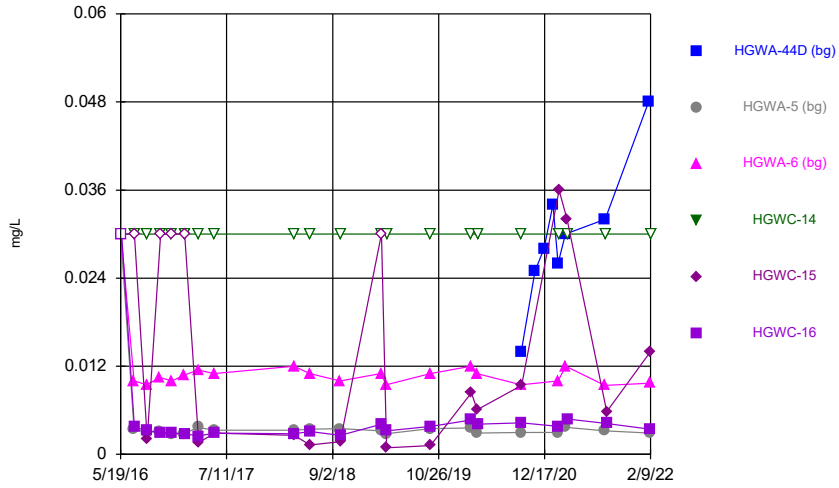
Time Series



Constituent: Lithium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

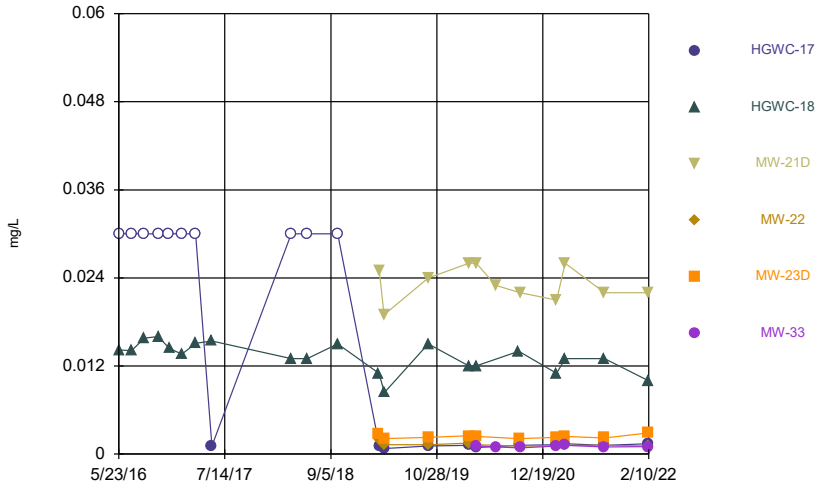
Time Series



Constituent: Lithium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

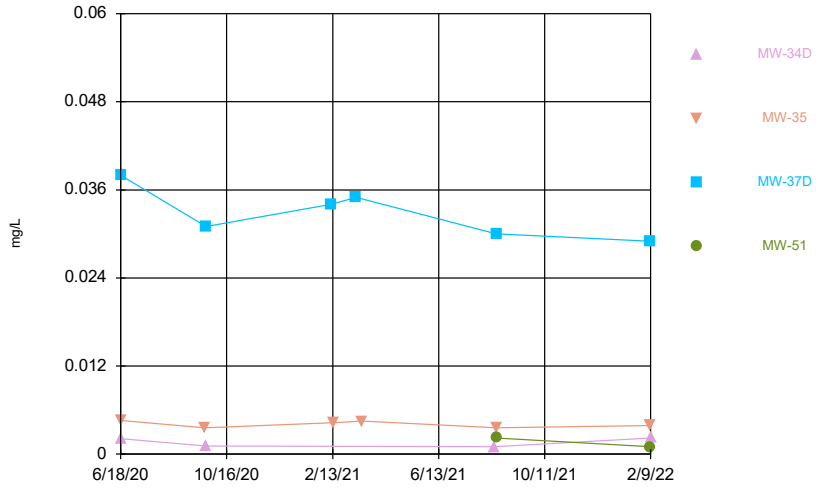
Time Series



Constituent: Lithium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

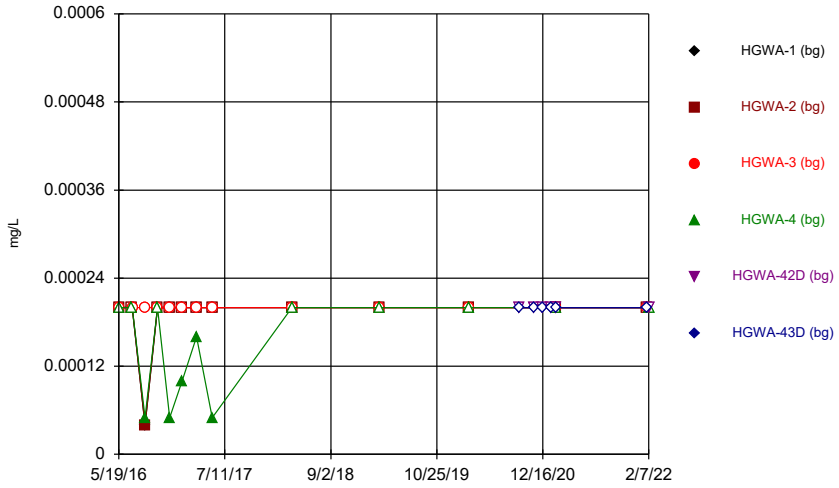
Time Series



Constituent: Lithium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

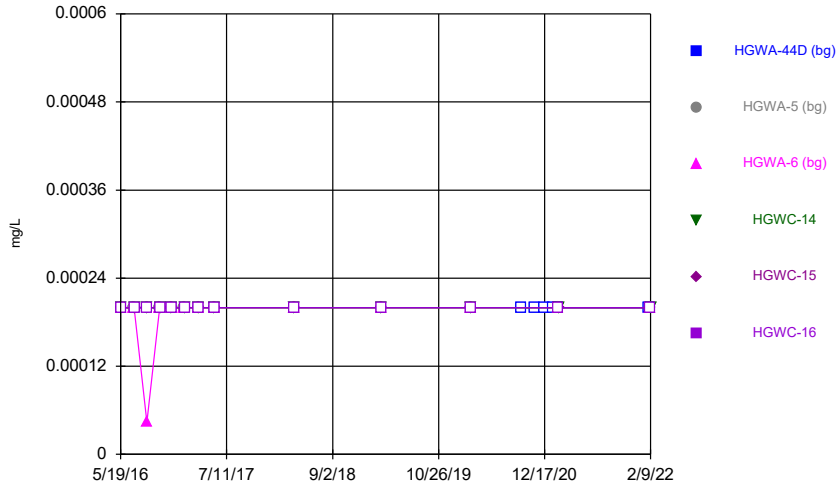
Time Series



Constituent: Mercury Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

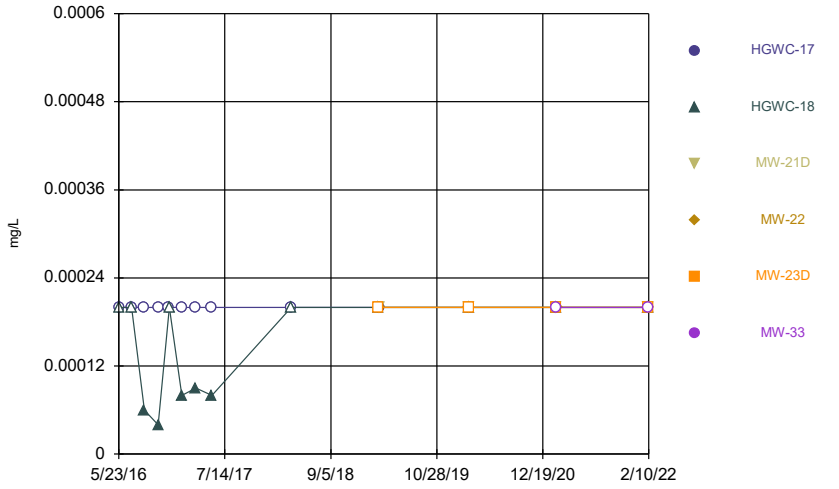
Time Series



Constituent: Mercury Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

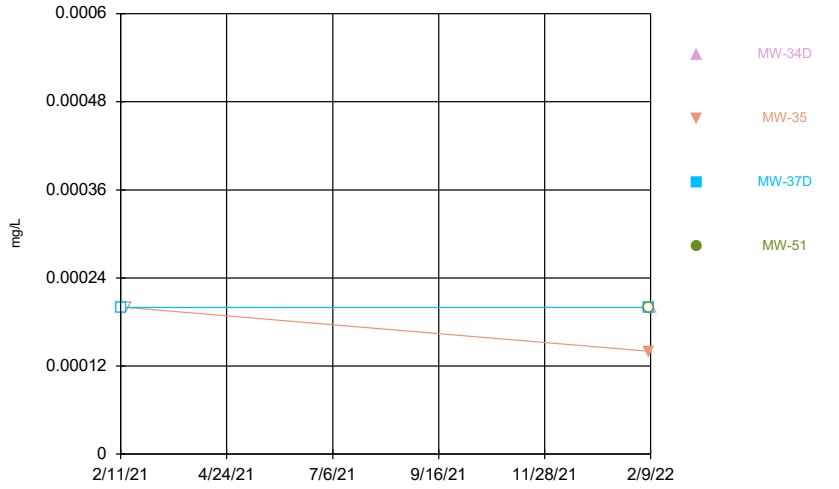
Time Series



Constituent: Mercury Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

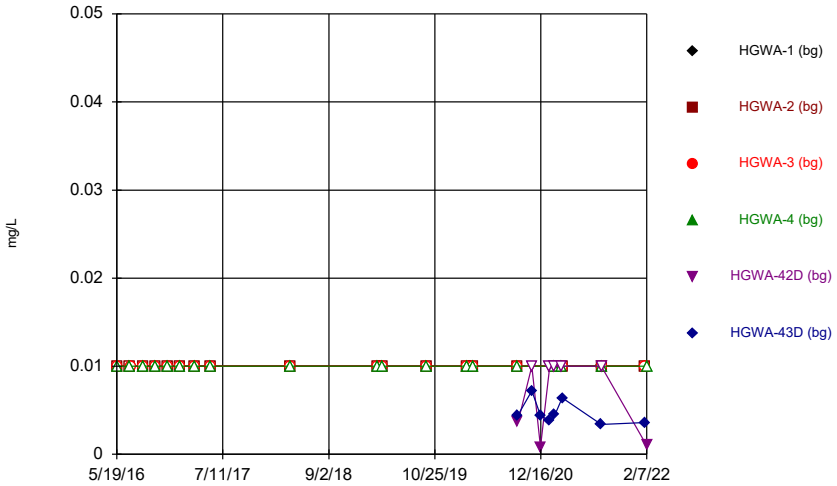
Time Series



Constituent: Mercury Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

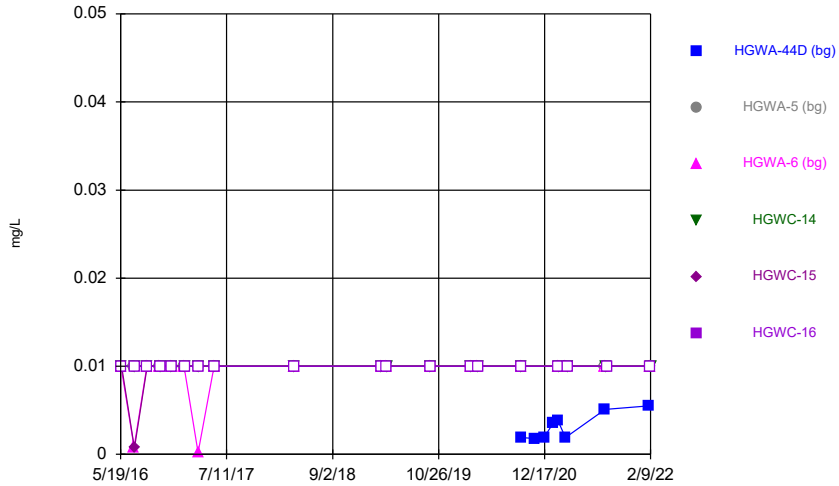
Time Series



Constituent: Molybdenum Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

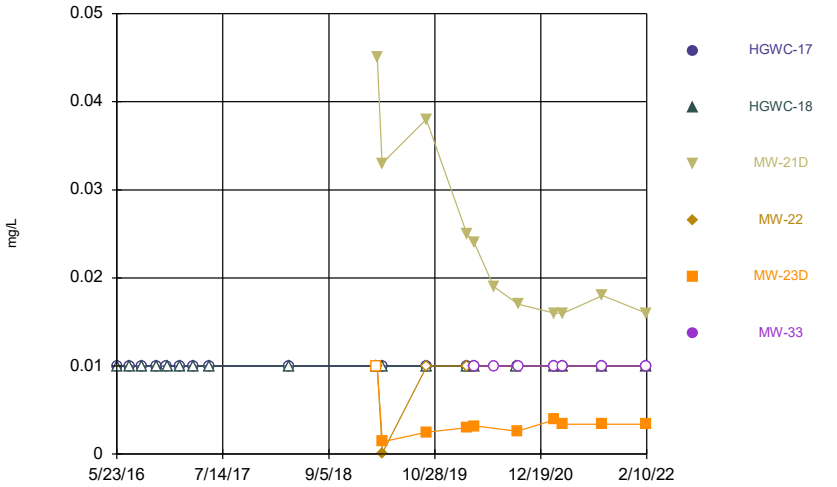
Time Series



Constituent: Molybdenum Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

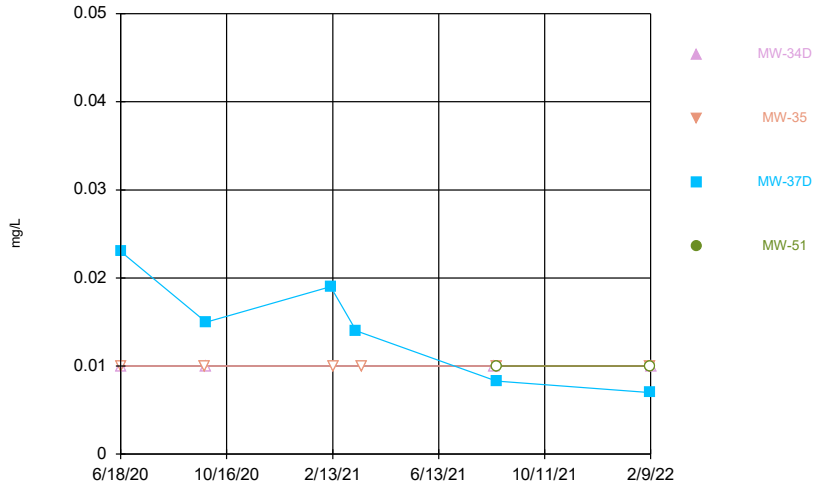
Time Series



Constituent: Molybdenum Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

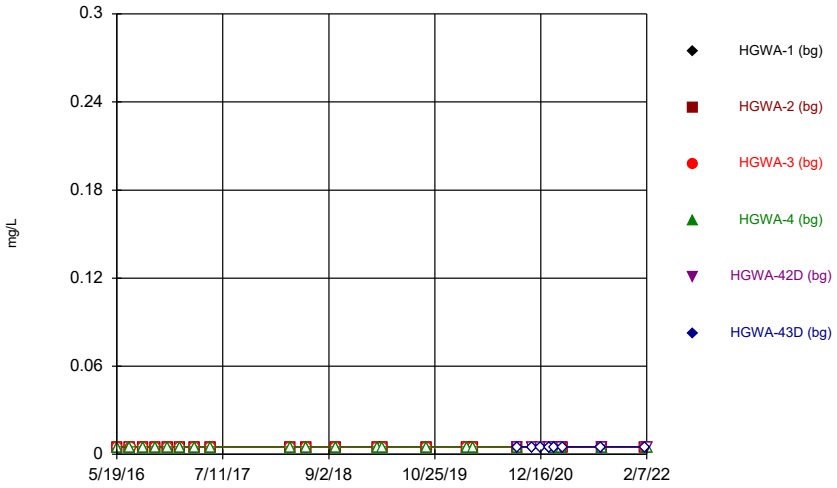
Time Series



Constituent: Molybdenum Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

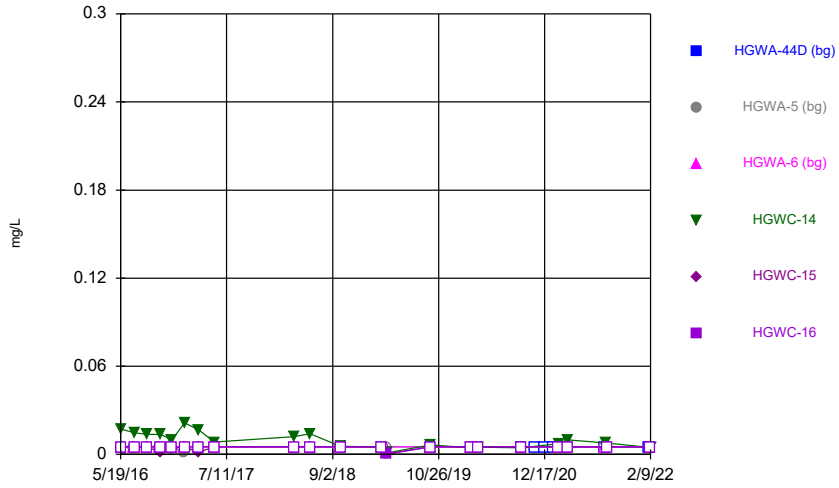
Time Series



Constituent: Selenium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

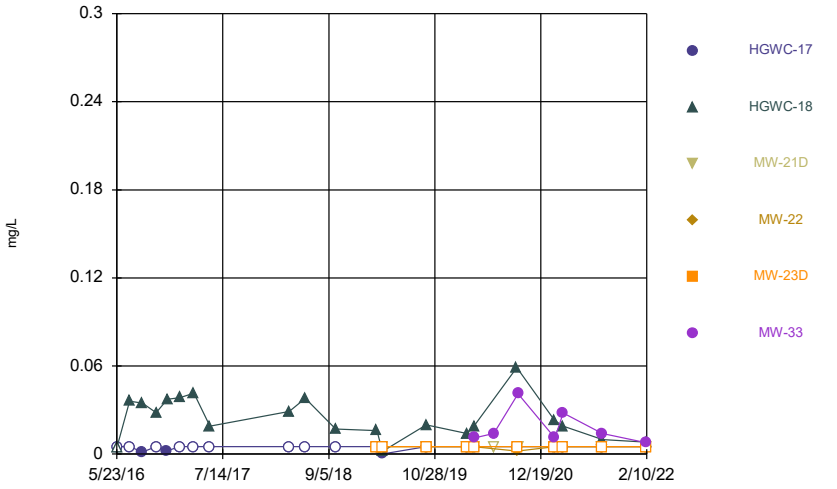
Time Series



Constituent: Selenium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

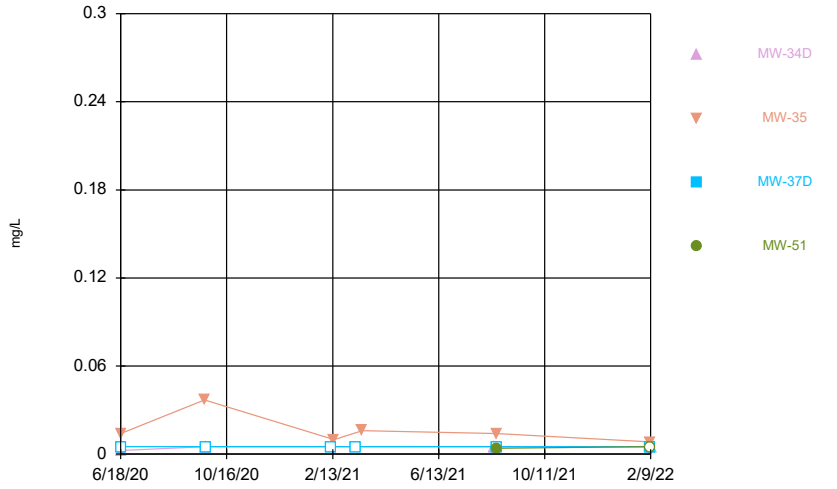
Time Series



Constituent: Selenium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

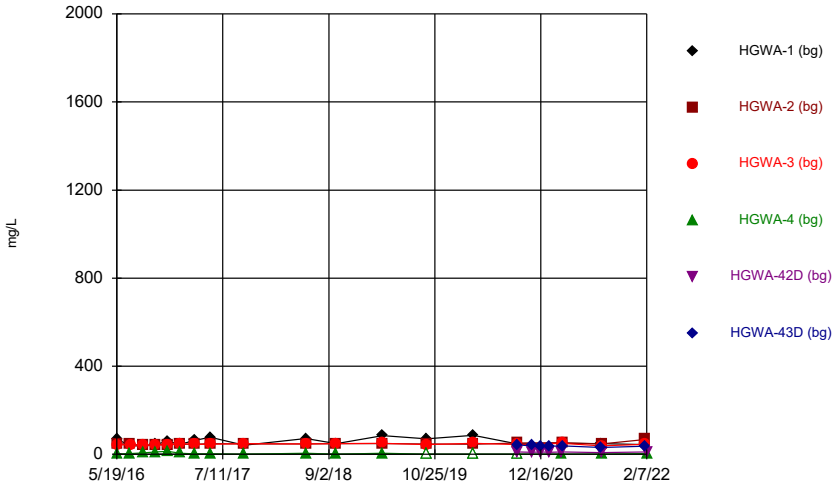
Time Series



Constituent: Selenium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

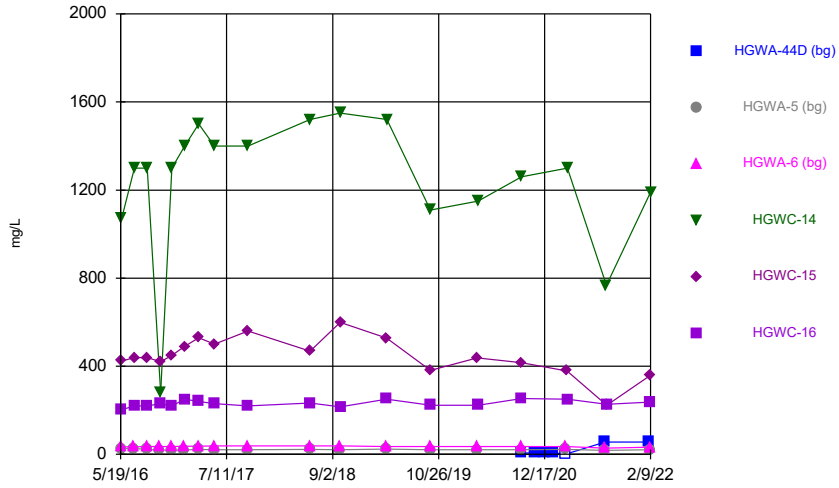
Time Series



Constituent: Sulfate Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

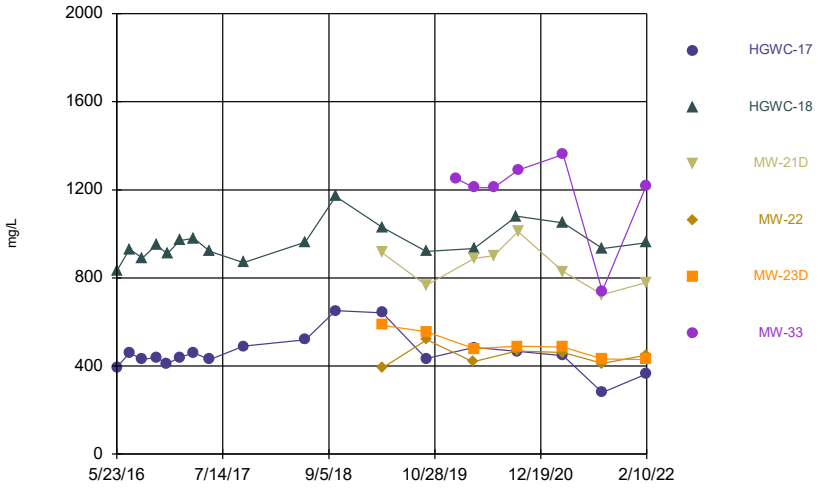
Time Series



Constituent: Sulfate Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

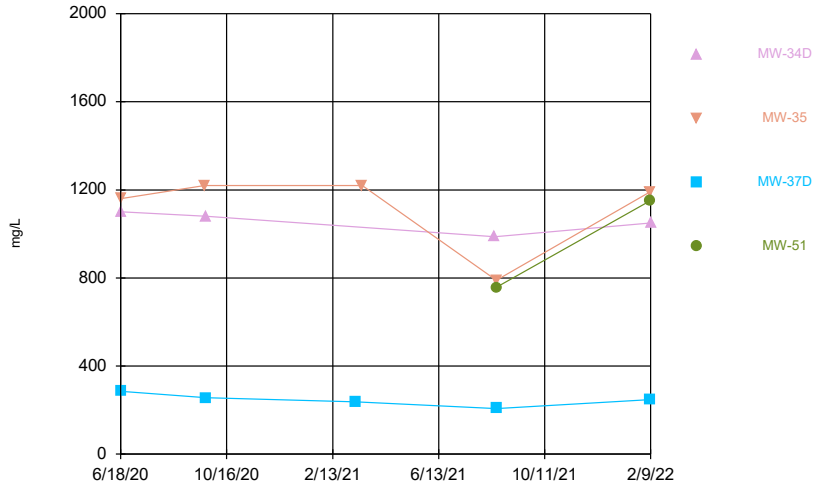
Time Series



Constituent: Sulfate Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

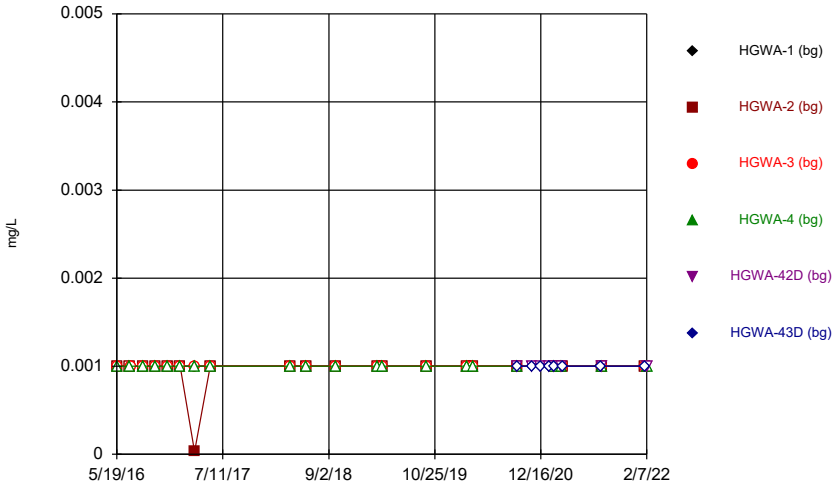
Time Series



Constituent: Sulfate Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

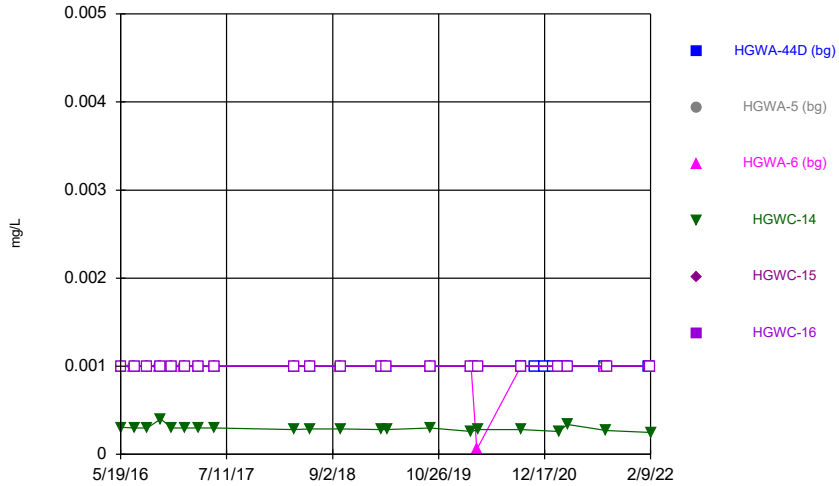
Time Series



Constituent: Thallium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

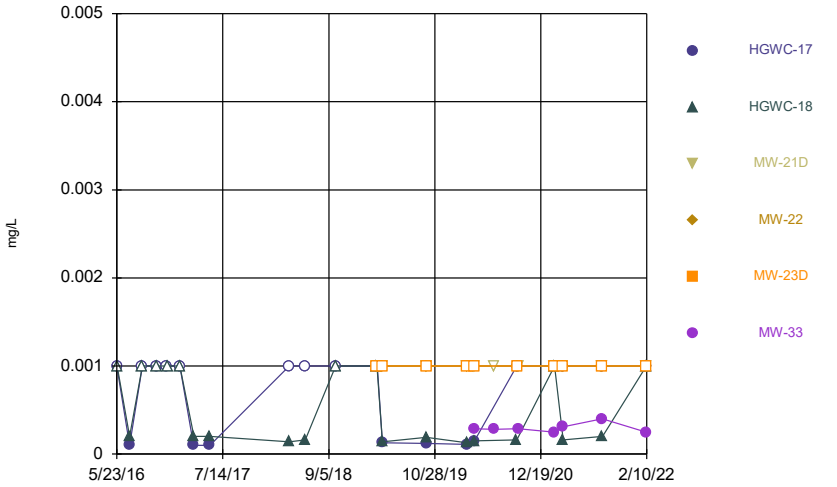
Time Series



Constituent: Thallium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

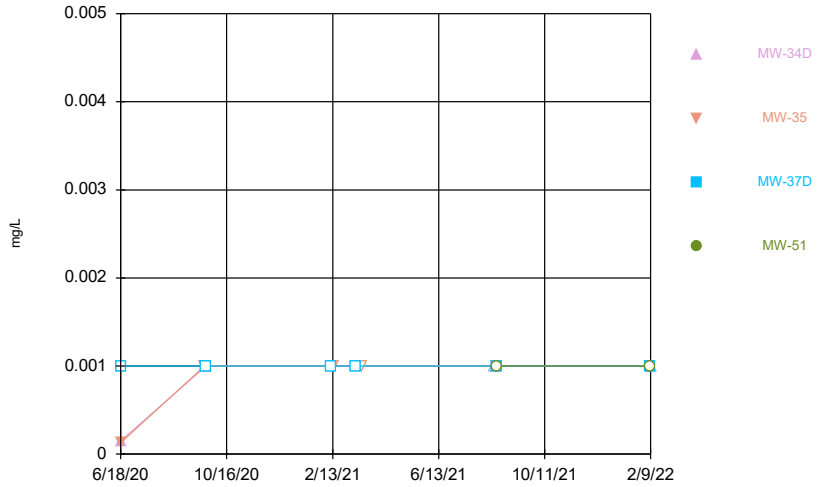
Time Series



Constituent: Thallium Analysis Run 4/26/2022 4:28 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

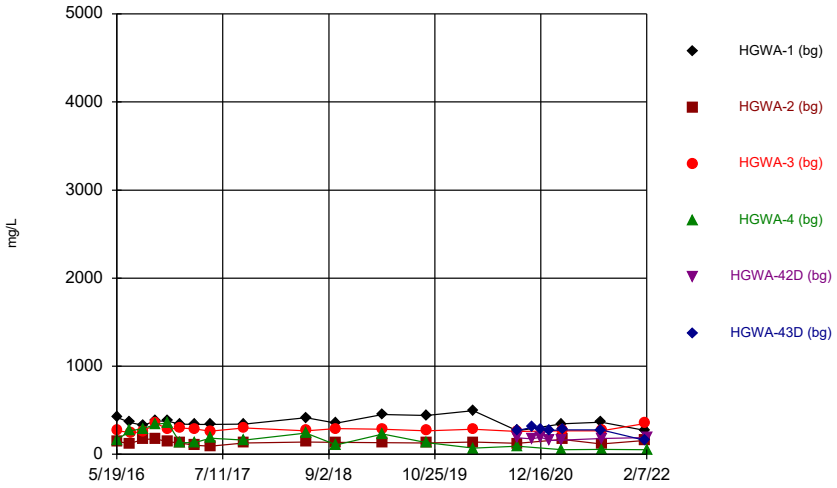
Time Series



Constituent: Thallium Analysis Run 4/26/2022 4:29 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series

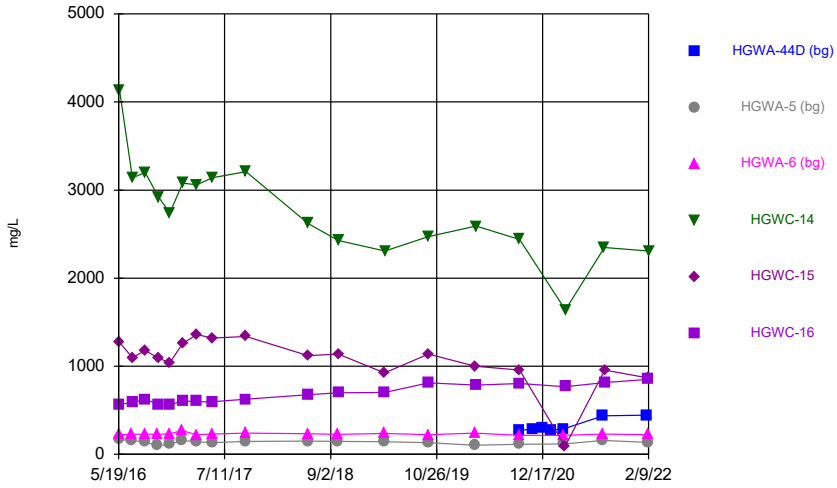


Constituent: Total Dissolved Solids Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



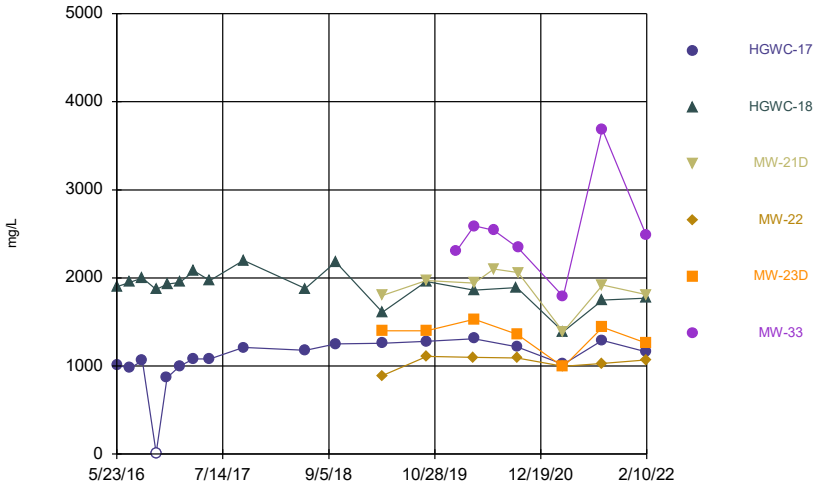
Constituent: Total Dissolved Solids Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

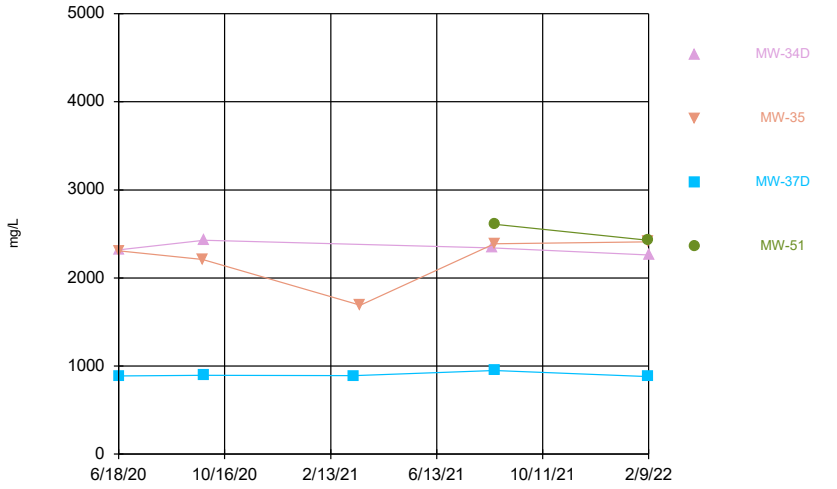


Constituent: Total Dissolved Solids Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.003	<0.003	<0.003	<0.003		
7/11/2016	<0.003	<0.003		<0.003		
7/12/2016			0.0003 (J)			
8/30/2016	<0.003	<0.003	<0.003	<0.003		
10/19/2016	0.0014 (J)	<0.003	<0.003	<0.003		
12/6/2016	<0.003	<0.003	<0.003	<0.003		
1/24/2017	<0.003	<0.003	<0.003	<0.003		
3/21/2017	<0.003	<0.003	<0.003	<0.003		
5/22/2017	<0.003	<0.003	<0.003			
5/23/2017				<0.003		
4/2/2018	<0.003	<0.003		<0.003		
4/3/2018			<0.003			
3/11/2019				<0.003		
3/12/2019	<0.003	<0.003	<0.003			
9/23/2019	<0.003	<0.003	<0.003			
3/2/2020	<0.003	<0.003	<0.003	<0.003		
9/16/2020						0.00051 (J)
9/17/2020					0.00055 (J)	
11/10/2020						0.00043 (J)
11/11/2020					<0.003	
12/15/2020					0.00035 (J)	0.00031 (J)
1/19/2021						0.00029 (J)
1/20/2021					<0.003	
2/8/2021	<0.003			<0.003	0.0019 (J)	
2/9/2021		0.00062 (J)	0.00031 (J)			0.00037 (J)
3/10/2021	<0.003			<0.003	<0.003	
3/11/2021		<0.003	<0.003			0.00057 (J)
8/11/2021	<0.003					<0.003
8/12/2021		<0.003	<0.003	<0.003	<0.003	
2/1/2022	<0.003	<0.003	<0.003			<0.003
2/7/2022				<0.003	<0.003	

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.003				
5/20/2016			<0.003			
5/23/2016				<0.003	<0.003	<0.003
7/11/2016		<0.003	0.001 (J)			
7/12/2016				0.0003 (J)	<0.003	<0.003
8/30/2016		<0.003	<0.003			
9/1/2016				<0.003	<0.003	<0.003
10/20/2016		0.0023 (J)	<0.003			
10/24/2016				<0.003	<0.003	
10/25/2016						<0.003
12/7/2016				<0.003	<0.003	<0.003
12/8/2016		<0.003	<0.003			
1/24/2017		<0.003	<0.003			
1/26/2017				<0.003	<0.003	<0.003
3/21/2017		<0.003	<0.003			
3/22/2017						<0.003
3/23/2017				<0.003	<0.003	
5/23/2017		<0.003	<0.003			
5/24/2017				<0.003	<0.003	<0.003
4/3/2018		<0.003	<0.003		<0.003	<0.003
4/4/2018				<0.003		
3/12/2019		<0.003	<0.003			
3/14/2019				<0.003	<0.003	
3/15/2019						<0.003
3/2/2020		<0.003	<0.003			
3/3/2020				<0.003	<0.003	<0.003
9/16/2020	0.00049 (J)					
11/10/2020	<0.003					
12/15/2020	0.00047 (J)					
1/19/2021	0.00067 (J)					
2/9/2021	0.00042 (J)	<0.003	<0.003			
2/10/2021						<0.003
2/11/2021				0.00043 (J)		
2/12/2021					<0.003	
3/10/2021	0.00037 (J)					
3/11/2021		<0.003	<0.003			
3/16/2021					<0.003	
3/17/2021				<0.003		<0.003
8/12/2021		0.0014 (J)	<0.003			
8/13/2021	<0.003					
8/18/2021				<0.003		
8/19/2021					<0.003	<0.003
2/1/2022	0.0013 (J)					
2/7/2022		<0.003	0.0014 (J)			
2/8/2022					0.002 (J)	<0.003
2/9/2022				<0.003		

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.003					
5/24/2016		<0.003				
7/12/2016	<0.003	<0.003				
9/1/2016	<0.003	<0.003				
10/25/2016	<0.003	<0.003				
12/7/2016	<0.003					
12/8/2016		<0.003				
1/26/2017	<0.003	<0.003				
3/22/2017	<0.003					
3/23/2017		<0.003				
5/25/2017	<0.003	<0.003				
4/3/2018	<0.003	<0.003				
3/14/2019		<0.003			<0.003	
3/15/2019	<0.003		<0.003	<0.003		
3/2/2020				<0.003	<0.003	
3/3/2020	<0.003	<0.003	<0.003			
2/11/2021	<0.003	<0.003	<0.003			
2/12/2021					<0.003	0.00046 (J)
2/15/2021				<0.003		
3/17/2021				<0.003	<0.003	
3/18/2021	<0.003	<0.003	<0.003			<0.003
8/18/2021	<0.003					<0.003
8/19/2021		0.0008 (J)	<0.003	0.0016 (J)	<0.003	
2/8/2022	<0.003	<0.003	<0.003	<0.003		<0.003
2/10/2022					<0.003	

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
2/11/2021			0.00079 (J)	
2/15/2021		0.00041 (J)		
3/12/2021			<0.003	
3/19/2021		<0.003		
8/16/2021	<0.003			
8/18/2021		<0.003	<0.003	<0.003
2/8/2022		0.0029 (J)	<0.003	<0.003
2/9/2022	<0.003			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.005	0.00127 (J)	<0.005	<0.005		
7/11/2016	<0.005	0.002 (J)		<0.005		
7/12/2016			0.0008 (J)			
8/30/2016	<0.005	0.0017 (J)	<0.005	<0.005		
10/19/2016	<0.005	<0.005	<0.005	<0.005		
12/6/2016	<0.005	<0.005	<0.005	<0.005		
1/24/2017	<0.005	<0.005	<0.005	<0.005		
3/21/2017	0.0005 (J)	<0.005	0.0007 (J)	<0.005		
5/22/2017	<0.005	0.0006 (J)	0.0006 (J)			
5/23/2017				<0.005		
4/2/2018	<0.005	<0.005		<0.005		
4/3/2018			<0.005			
6/4/2018	<0.005	0.00088 (J)	0.0008 (J)	<0.005		
10/1/2018	<0.005	<0.005	0.0011 (J)	<0.005		
3/11/2019				<0.005		
3/12/2019	<0.005	0.00069 (J)	0.00063 (J)			
4/1/2019			<0.005			
4/2/2019	<0.005	<0.005		<0.005		
9/23/2019	0.00046 (J)	0.00067 (J)	0.0011 (J)			
9/24/2019				<0.005		
3/2/2020	<0.005	0.00043 (J)	0.0004 (J)	<0.005		
3/25/2020	<0.005	<0.005	<0.005			
3/26/2020				<0.005		
9/15/2020	<0.005	<0.005	<0.005	<0.005		
9/16/2020						<0.005
9/17/2020					<0.005	
11/10/2020						0.0021 (J)
11/11/2020					<0.005	
12/15/2020					<0.005	<0.005
1/19/2021						0.0011 (J)
1/20/2021					<0.005	
2/8/2021	<0.005			<0.005	<0.005	
2/9/2021		<0.005	<0.005			0.0017 (J)
3/10/2021	<0.005			<0.005	<0.005	
3/11/2021		<0.005	<0.005			0.0013 (J)
8/11/2021	<0.005					0.0015 (J)
8/12/2021		<0.005	<0.005	<0.005	<0.005	
2/1/2022	0.0016 (J)	0.0023 (J)	0.0024 (J)			0.0036 (J)
2/7/2022				<0.005	<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.005				
5/20/2016			<0.005			
5/23/2016				0.00268 (J)	<0.005	<0.005
7/11/2016		<0.005	<0.005			
7/12/2016				0.0059	<0.005	<0.005
8/30/2016		<0.005	<0.005			
9/1/2016				0.0056	<0.005	<0.005
10/20/2016		<0.005	<0.005			
10/24/2016				0.0058	<0.005	
10/25/2016						<0.005
12/7/2016				<0.005	<0.005	<0.005
12/8/2016		<0.005	<0.005			
1/24/2017		<0.005	<0.005			
1/26/2017				0.0089	<0.005	<0.005
3/21/2017		<0.005	<0.005			
3/22/2017						0.0005 (J)
3/23/2017				0.0069	0.0008 (J)	
5/23/2017		<0.005	<0.005			
5/24/2017				0.0048 (J)	<0.005	<0.005
4/3/2018		<0.005	<0.005		<0.005	<0.005
4/4/2018				0.0052		
6/5/2018		<0.005	<0.005			
6/6/2018				0.0059	<0.005	<0.005
10/2/2018		0.00064 (J)	<0.005			
10/3/2018				0.0032 (J)	<0.005	<0.005
3/12/2019		<0.005	<0.005			
3/14/2019				0.0029 (J)	<0.005	
3/15/2019						<0.005
4/2/2019		<0.005	<0.005			
4/4/2019					0.00017 (J)	0.0001 (J)
4/5/2019				<0.005		
9/24/2019		0.00055 (J)	<0.005	0.0039 (J)	0.00037 (J)	
9/25/2019						<0.005
3/2/2020		<0.005	<0.005			
3/3/2020				0.0035 (J)	<0.005	<0.005
3/25/2020			<0.005			
3/26/2020		<0.005			<0.005	
3/30/2020				0.0051		0.0011 (J)
9/15/2020		<0.005	<0.005			
9/16/2020	<0.005					
9/17/2020					<0.005	<0.005
9/18/2020				0.0029 (J)		
11/10/2020	<0.005					
12/15/2020	<0.005					
1/19/2021	<0.005					
2/9/2021	0.00083 (J)	<0.005	<0.005			
2/10/2021						0.0012 (J)
2/11/2021				0.0062		
2/12/2021					<0.005	
3/10/2021	<0.005					
3/11/2021		<0.005	<0.005			
3/16/2021					<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/17/2021				<0.005		<0.005
8/12/2021		<0.005	<0.005			
8/13/2021	<0.005					
8/18/2021				0.0035 (J)		
8/19/2021					<0.005	<0.005
2/1/2022	0.0025 (J)					
2/7/2022		<0.005	<0.005			
2/8/2022					<0.005	<0.005
2/9/2022				0.0077		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.005					
5/24/2016		0.00294 (J)				
7/12/2016	<0.005	0.0074				
9/1/2016	<0.005	0.0073				
10/25/2016	<0.005	0.006				
12/7/2016	<0.005					
12/8/2016		0.007				
1/26/2017	<0.005	0.0068				
3/22/2017	0.0007 (J)					
3/23/2017		0.0082				
5/25/2017	0.0007 (J)	0.006				
4/3/2018	<0.005	0.0062				
6/5/2018		0.008				
6/6/2018	0.00097 (J)					
10/3/2018	<0.005	0.0039 (J)				
3/14/2019		0.0036 (J)			<0.005	
3/15/2019	<0.005		<0.005	<0.005		
4/4/2019			0.00019 (J)			
4/5/2019	<0.005	0.0015 (J)		<0.005	<0.005	
9/25/2019	<0.005	0.0044 (J)	<0.005			
9/26/2019					<0.005	
9/27/2019				0.00045 (J)		
3/2/2020				<0.005	<0.005	
3/3/2020	<0.005	0.0057	<0.005			
3/27/2020				<0.005		
3/31/2020	0.0008 (J)	0.0056				
4/1/2020			0.0013 (J)		0.00082 (J)	0.0061
6/17/2020			<0.005			0.0031 (J)
9/15/2020		0.0074				
9/16/2020	<0.005					
9/17/2020				<0.005	<0.005	
9/21/2020			<0.005			0.0083
2/11/2021	0.0012 (J)	0.0069 (B)	0.001 (J)			
2/12/2021					0.001 (J)	0.0059
2/15/2021				<0.005		
3/17/2021				<0.005	<0.005	
3/18/2021	<0.005	0.0083 (J)	<0.005			0.0054 (J)
8/18/2021	<0.005					0.0058
8/19/2021		0.0045 (J)	<0.005	<0.005	<0.005	
2/8/2022	0.0017 (J)	0.005 (J)	<0.005	<0.005		0.0069
2/10/2022					<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.0032 (J)	0.005 (J)	0.0021 (J)	
9/21/2020		0.0059		
9/23/2020	0.001 (J)		0.00095 (J)	
2/11/2021			0.0023 (J)	
2/15/2021		0.005		
3/12/2021			<0.005	
3/19/2021		<0.005		
8/16/2021	0.0024 (J)			
8/18/2021		0.0043 (J)	<0.005	0.002 (J)
2/8/2022		0.0072	<0.005	0.0046 (J)
2/9/2022	0.0054			

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	0.0346	0.114	0.111	0.0266		
7/11/2016	0.0311	0.112		0.0309		
7/12/2016			0.115			
8/30/2016	0.0293	0.131	0.113	0.031		
10/19/2016	0.0293	0.111	0.123	0.0332		
12/6/2016	0.0304	0.108	0.127	0.0334		
1/24/2017	0.028	0.102	0.126	0.0192		
3/21/2017	0.0275	0.095	0.12	0.0175		
5/22/2017	0.0281	0.103	0.117			
5/23/2017				0.0227		
4/2/2018	0.026	0.099		0.022		
4/3/2018			0.11			
6/4/2018	0.035	0.11	0.12	0.027		
10/1/2018	0.029	0.11	0.14	0.018		
3/11/2019				0.029		
3/12/2019	0.042	0.12	0.13			
4/1/2019			0.13			
4/2/2019	0.04	0.13		0.03		
9/23/2019	0.042	0.13	0.13			
9/24/2019				0.03		
3/2/2020	0.034	0.11	0.14	0.023		
3/25/2020	0.043	0.12	0.13			
3/26/2020				0.026		
9/15/2020	0.035	0.12	0.12	0.024		
9/16/2020						0.26
9/17/2020					0.13	
11/10/2020						0.25
11/11/2020					0.18	
12/15/2020					0.19	0.29
1/19/2021						0.32
1/20/2021					0.2	
2/8/2021	0.032			0.04	0.19	
2/9/2021		0.12	0.13			0.34
3/10/2021	0.03			0.036	0.18	
3/11/2021		0.07	0.13			0.32
8/11/2021	0.03					0.28
8/12/2021		0.12	0.11	0.034	0.18	
2/1/2022	0.031	0.13	0.12			0.29
2/7/2022				0.028	0.18	

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		0.0519				
5/20/2016			0.174			
5/23/2016				<0.2	0.0315 (J)	0.0841
7/11/2016		0.0565	0.134			
7/12/2016				0.0214	0.0372	0.0886
8/30/2016		0.0548	0.212			
9/1/2016				0.0208	0.0364	0.0934
10/20/2016		0.0539	0.157			
10/24/2016				0.0208	0.0326	
10/25/2016						0.0991
12/7/2016				0.022	0.0301	0.101
12/8/2016		0.0496	0.162			
1/24/2017		0.0478	0.168			
1/26/2017				0.0238	0.0287	0.105
3/21/2017		0.0453	0.186			
3/22/2017						0.11
3/23/2017				0.0244	0.0329	
5/23/2017		0.0496	0.187			
5/24/2017				0.0228	0.0283	0.106
4/3/2018		0.038	0.14		0.019	0.099
4/4/2018				0.021		
6/5/2018		0.046	0.21			
6/6/2018				0.022	0.022	0.11
10/2/2018		0.047	0.19			
10/3/2018				0.02	0.025	0.11
3/12/2019		0.05	0.2			
3/14/2019				0.019	0.021	
3/15/2019						0.13
4/2/2019		0.044	0.19			
4/4/2019					0.018	0.11
4/5/2019				0.016		
9/24/2019		0.053	0.22	0.021	0.019	
9/25/2019						0.11
3/2/2020		0.053	0.19			
3/3/2020				0.018	0.018	0.12
3/25/2020			0.19			
3/26/2020		0.045			0.016	
3/30/2020				0.02		0.11
9/15/2020		0.045	0.19			
9/16/2020	0.24					
9/17/2020					0.017	0.11
9/18/2020				0.019		
11/10/2020	0.38					
12/15/2020	0.39					
1/19/2021	0.41					
2/9/2021	0.46	0.046	0.21			
2/10/2021						0.11
2/11/2021				0.02		
2/12/2021					0.014	
3/10/2021	0.26					
3/11/2021		0.044	0.21			
3/16/2021					0.012	

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/17/2021				0.023		0.12
8/12/2021		0.044	0.18			
8/13/2021	0.22					
8/18/2021				0.018		
8/19/2021					0.01	0.1
2/1/2022	0.23					
2/7/2022		0.038	0.18			
2/8/2022					0.0098	0.1
2/9/2022				0.017		

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	0.0222 (J)					
5/24/2016		<0.2				
7/12/2016	0.0221	0.0346				
9/1/2016	0.0227	0.0336				
10/25/2016	0.0225	0.0349				
12/7/2016	0.0227					
12/8/2016		0.0339				
1/26/2017	0.0229	0.0293				
3/22/2017	0.0248					
3/23/2017		0.0313				
5/25/2017	0.0255	0.0336				
4/3/2018	0.025	0.028				
6/5/2018		0.03				
6/6/2018	0.028					
10/3/2018	0.028	0.032				
3/14/2019		0.029			0.082	
3/15/2019	0.029		0.09	0.044		
4/4/2019			0.075			
4/5/2019	0.022	0.021		0.036	0.061	
9/25/2019	0.025	0.03	0.066			
9/26/2019					0.064	
9/27/2019				0.028		
3/2/2020				0.027	0.06	
3/3/2020	0.026	0.026	0.058			
3/27/2020				0.025		
3/31/2020	0.029	0.029				
4/1/2020			0.066		0.065	0.027
6/17/2020			0.054			0.024
9/15/2020		0.03				
9/16/2020	0.025					
9/17/2020				0.02	0.057	
9/21/2020			0.049			0.024
2/11/2021	0.025	0.03	0.044			
2/12/2021					0.056	0.025
2/15/2021				0.017		
3/17/2021				0.018	0.058	
3/18/2021	0.027	0.031	0.047			0.029
8/18/2021	0.022					0.025
8/19/2021		0.031	0.042	0.018	0.05	
2/8/2022	0.021	0.02	0.033	0.014		0.02
2/10/2022					0.05	

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.044	0.029	0.19	
9/21/2020		0.028		
9/23/2020	0.038		0.14	
2/11/2021			0.14	
2/15/2021		0.026		
3/12/2021			0.12	
3/19/2021		0.032		
8/16/2021	0.035			
8/18/2021		0.025	0.12	0.032
2/8/2022		0.023	0.11	0.046
2/9/2022	0.04			

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.0005	<0.0005	<0.0005	<0.0005		
7/11/2016	<0.0005	0.0001 (J)		<0.0005		
7/12/2016			<0.0005			
8/30/2016	<0.0005	<0.0005	<0.0005	<0.0005		
10/19/2016	<0.0005	0.0001 (J)	<0.0005	<0.0005		
12/6/2016	<0.0005	0.0002 (J)	<0.0005	<0.0005		
1/24/2017	<0.0005	0.0001 (J)	<0.0005	<0.0005		
3/21/2017	<0.0005	0.0001 (J)	<0.0005	<0.0005		
5/22/2017	<0.0005	0.0001 (J)	<0.0005			
5/23/2017				<0.0005		
4/2/2018	<0.0005	<0.0005		<0.0005		
4/3/2018			<0.0005			
3/11/2019				5E-05 (J)		
3/12/2019	<0.0005	0.00017 (J)	<0.0005			
4/1/2019			<0.0005			
4/2/2019	<0.0005	0.00015 (J)		<0.0005		
9/23/2019	<0.0005	0.00011 (J)	<0.0005			
9/24/2019				<0.0005		
3/2/2020	<0.0005	0.00014 (J)	<0.0005	0.00019 (J)		
3/25/2020	<0.0005	0.00016 (J)	<0.0005			
3/26/2020				7.6E-05 (J)		
9/15/2020	<0.0005	0.00013 (J)	<0.0005	<0.0005		
9/16/2020						<0.0005
9/17/2020					<0.0005	
11/10/2020						<0.0005
11/11/2020					<0.0005	
12/15/2020					<0.0005	<0.0005
1/19/2021						<0.0005
1/20/2021					<0.0005	
2/8/2021	<0.0005			0.00023 (J)	<0.0005	
2/9/2021		0.00014 (J)	<0.0005			<0.0005
3/10/2021	<0.0005			0.00017 (J)	<0.0005	
3/11/2021		8.6E-05 (J)	<0.0005			<0.0005
8/11/2021	<0.0005					<0.0005
8/12/2021		0.00014 (J)	<0.0005	0.00021 (J)	<0.0005	
2/1/2022	<0.0005	0.0002 (J)	<0.0005			<0.0005
2/7/2022				0.00017 (J)	<0.0005	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.0005				
5/20/2016			<0.0005			
5/23/2016				<0.0005	<0.0005	<0.0005
7/11/2016		<0.0005	<0.0005			
7/12/2016				0.0005 (J)	<0.0005	<0.0005
8/30/2016		<0.0005	<0.0005			
9/1/2016				0.0005 (J)	<0.0005	<0.0005
10/20/2016		<0.0005	<0.0005			
10/24/2016				0.0005 (J)	<0.0005	
10/25/2016						<0.0005
12/7/2016				0.0006 (J)	<0.0005	<0.0005
12/8/2016		<0.0005	<0.0005			
1/24/2017		<0.0005	<0.0005			
1/26/2017				0.0005 (J)	<0.0005	<0.0005
3/21/2017		<0.0005	<0.0005			
3/22/2017						<0.0005
3/23/2017				0.0006 (J)	<0.0005	
5/23/2017		<0.0005	<0.0005			
5/24/2017				0.0005 (J)	<0.0005	<0.0005
4/3/2018		<0.0005	<0.0005		<0.0005	<0.0005
4/4/2018				<0.0005		
3/12/2019		<0.0005	<0.0005			
3/14/2019				0.00043 (J)	<0.0005	
3/15/2019						<0.0005
4/2/2019		<0.0005	<0.0005			
4/4/2019					<0.0005	<0.0005
4/5/2019				0.00027 (J)		
9/24/2019		<0.0005	<0.0005	0.00044 (J)	<0.0005	
9/25/2019						<0.0005
3/2/2020		<0.0005	<0.0005			
3/3/2020				0.00043 (J)	<0.0005	<0.0005
3/25/2020			<0.0005			
3/26/2020		<0.0005			<0.0005	
3/30/2020				0.00043 (J)		<0.0005
9/15/2020		<0.0005	<0.0005			
9/16/2020	<0.0005					
9/17/2020					<0.0005	<0.0005
9/18/2020				0.00043 (J)		
11/10/2020	<0.0005					
12/15/2020	<0.0005					
1/19/2021	<0.0005					
2/9/2021	<0.0005	<0.0005	<0.0005			
2/10/2021						<0.0005
2/11/2021				0.00044 (J)		
2/12/2021					<0.0005	
3/10/2021	<0.0005					
3/11/2021		<0.0005	<0.0005			
3/16/2021					<0.0005	
3/17/2021				0.00058		<0.0005
8/12/2021		<0.0005	<0.0005			
8/13/2021	<0.0005					
8/18/2021				0.00039 (J)		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
8/19/2021					<0.0005	<0.0005
2/1/2022	<0.0005					
2/7/2022		<0.0005	<0.0005			
2/8/2022					<0.0005	<0.0005
2/9/2022				0.00056		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.0005					
5/24/2016		0.00278 (J)				
7/12/2016	<0.0005	0.0032				
9/1/2016	<0.0005	0.0034				
10/25/2016	<0.0005	0.0034				
12/7/2016	<0.0005					
12/8/2016		0.0033				
1/26/2017	<0.0005	0.0034				
3/22/2017	<0.0005					
3/23/2017		0.0036				
5/25/2017	<0.0005	0.0036				
4/3/2018	<0.0005	<0.0005				
3/14/2019		0.0026 (J)			<0.0005	
3/15/2019	<0.0005		<0.0005	<0.0005		
4/4/2019			<0.0005			
4/5/2019	<0.0005	0.0022 (J)		<0.0005	<0.0005	
9/25/2019	<0.0005	0.0031	<0.0005			
9/26/2019					<0.0005	
9/27/2019				<0.0005		
3/2/2020				<0.0005	<0.0005	
3/3/2020	<0.0005	0.0029 (J)	<0.0005			
3/27/2020				<0.0005		
3/31/2020	<0.0005	0.003				
4/1/2020			<0.0005		<0.0005	0.0011 (J)
6/17/2020			<0.0005			0.00099 (J)
9/15/2020		0.0033				
9/16/2020	<0.0005					
9/17/2020				4.7E-05 (J)	<0.0005	
9/21/2020			<0.0005			0.0009 (J)
2/11/2021	6.7E-05 (J)	0.0036	<0.0005			
2/12/2021					<0.0005	0.001 (J)
2/15/2021				6.2E-05 (J)		
3/17/2021				8.2E-05 (J)	<0.0005	
3/18/2021	4.8E-05 (J)	0.0038	<0.0005			0.0011
8/18/2021	<0.0005					0.00097
8/19/2021		0.0034	<0.0005	7E-05 (J)	<0.0005	
2/8/2022	<0.0005	0.0026	<0.0005	7.9E-05 (J)		0.00087 (J)
2/10/2022					<0.0005	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.00015 (J)	0.00032 (J)	0.00012 (J)	
9/21/2020		0.0004 (J)		
9/23/2020	<0.0005		<0.0005	
2/11/2021			<0.0005	
2/15/2021		0.0006 (J)		
3/12/2021			<0.0005	
3/19/2021		0.00061		
8/16/2021	<0.0005			
8/18/2021		0.00061	<0.0005	0.00042 (J)
2/8/2022		0.0007 (J)	<0.0005	0.00011 (J)
2/9/2022	6.5E-05 (J)			

Time Series

Constituent: Boron (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	0.0214 (J)	0.0321 (J)	<0.04	<0.04		
7/11/2016	0.0142 (J)	0.0337 (J)		0.0175 (J)		
7/12/2016			0.0074 (J)			
8/30/2016	0.0074 (J)	0.0173 (J)	<0.04	0.0072 (J)		
10/19/2016	0.0224 (J)	0.0341 (J)	0.0085 (J)	0.018 (J)		
12/6/2016	0.0211 (J)	0.0326 (J)	0.0085 (J)	0.0158 (J)		
1/24/2017	0.0165 (J)	0.0365 (J)	0.01 (J)	0.0145 (J)		
3/21/2017	0.0187 (J)	0.0349 (J)	0.0079 (J)	0.0101 (J)		
5/22/2017	0.0782	0.0475	0.0131 (J)			
5/23/2017				0.0159 (J)		
10/3/2017	0.0198 (J)	0.0386 (J)	0.0097 (J)	0.0162 (J)		
6/4/2018	0.02 (J)	0.036 (J)	0.017 (J)	0.014 (J)		
10/1/2018	0.013 (J)	0.035 (J)	0.0061 (J)	0.0093 (J)		
4/1/2019			0.0066 (J)			
4/2/2019	0.016 (J)	0.034 (J)		0.01 (J)		
9/23/2019	0.021 (J)	0.04 (J)	0.0081 (J)			
9/24/2019				0.013 (J)		
3/25/2020	0.025 (J)	0.039 (J)	0.0096 (J)			
3/26/2020				0.012 (J)		
9/15/2020	0.017 (J)	0.044 (J)	0.0071 (J)	0.013 (J)		
9/16/2020						0.061 (J)
9/17/2020					0.098 (J)	
11/10/2020						0.057 (J)
11/11/2020					0.058 (J)	
12/15/2020					0.043 (J)	0.052 (J)
1/19/2021						0.049 (J)
1/20/2021					0.045 (J)	
3/10/2021	0.015 (J)			0.012 (J)	0.048	
3/11/2021		0.056	0.015 (J)			0.06
8/11/2021	0.02 (J)					0.042
8/12/2021		0.044	<0.04	0.014 (J)	0.044	
2/1/2022	0.016 (J)	0.056	0.011 (J)			0.05
2/7/2022				0.017 (J)	0.047	

Time Series

Constituent: Boron (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.04				
5/20/2016			0.0363 (J)			
5/23/2016				15.4	2.02	1.36
7/11/2016		0.0052 (J)	0.0179 (J)			
7/12/2016				16	1.65	1.62
8/30/2016		0.0068 (J)	0.014 (J)			
9/1/2016				12.3	1.93	1.31
10/20/2016		0.0135 (J)	0.0197 (J)			
10/24/2016				13.7	1.93	
10/25/2016						1.27
12/7/2016				16.5	2.23	1.42
12/8/2016		0.0083 (J)	0.0159 (J)			
1/24/2017		0.0072 (J)	<0.04			
1/26/2017				19.2	2.31	1.19
3/21/2017		<0.04	0.0166 (J)			
3/22/2017						1.32
3/23/2017				23.1	2.72	
5/23/2017		0.0095 (J)	0.0167 (J)			
5/24/2017				25.8	2.26	1.67
10/3/2017		0.0071 (J)	0.017 (J)			
10/4/2017				20.5	2	1.43
6/5/2018		0.0066 (J)	0.016 (J)			
6/6/2018				16.7	2.4	1.9
10/2/2018		0.0081 (J)	0.014 (J)			
10/3/2018				16.4	2.4	1.7
4/2/2019		0.0052 (J)	0.013 (J)			
4/4/2019					2.3	2.1
4/5/2019				12.5		
9/24/2019		0.0088 (J)	0.016 (J)	14.7	2.9	
9/25/2019						2.7
3/25/2020			0.021 (J)			
3/26/2020		0.0072 (J)			2.1	
3/30/2020				11.7		2.4
9/15/2020		0.012 (J)	0.016 (J)			
9/16/2020	0.23					
9/17/2020					2.2	2.4
9/18/2020				11		
11/10/2020	0.29					
12/15/2020	0.31					
1/19/2021	0.4					
3/10/2021	0.39					
3/11/2021		0.0075 (J)	0.018 (J)			
3/16/2021					2.4	
3/17/2021				11.8		2.7
8/12/2021		0.0092 (J)	0.014 (J)			
8/13/2021	0.31					
8/18/2021				8.6		
8/19/2021					2.1	2.5
2/1/2022	0.44					
2/7/2022		<0.04	0.019 (J)			
2/8/2022					1.9	2.6
2/9/2022				9.9		

Time Series

Constituent: Boron (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	5.7					
5/24/2016		9.33				
7/12/2016	9.58	11.9				
9/1/2016	5.76	8.8				
10/25/2016	5.38	8.5				
12/7/2016	5.74					
12/8/2016		7.15				
1/26/2017	5.78	9.17				
3/22/2017	5.52					
3/23/2017		10.6				
5/25/2017	8.58	13.2				
10/4/2017	6.8	10				
6/5/2018		8.4				
6/6/2018	6.3					
10/3/2018	6.9	9.3				
4/4/2019			5.2			
4/5/2019	5.9	6.4		2.1	3	
9/25/2019	8.1	11.7	6.4			
9/26/2019					3.8	
9/27/2019				2.9		
1/22/2020						11.2
3/27/2020				2.4		
3/31/2020	6.9	9.4				
4/1/2020			6.3		3.5	11.6
6/17/2020			5.8			10.3
9/15/2020		9.4				
9/16/2020	6.7					
9/17/2020				2.3	2.7	
9/21/2020			5.6			9
3/17/2021				2.7	3.4	
3/18/2021	6.8	8.9	5.7			10.2
8/18/2021	5.3					9.1
8/19/2021		8.6	5.4	2.5	3.4	
2/8/2022	7.8	8.1	5.9	3.2		8.4
2/10/2022					3.2	

Time Series

Constituent: Boron (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	9.4	11.9	0.14	
9/21/2020		12.3		
9/23/2020	10.2		0.12	
3/12/2021			0.15	
3/19/2021		11.9		
8/16/2021	8.2			
8/18/2021		11.2	0.2	9.7
2/8/2022		10.8	0.14	10.5
2/9/2022	9.6			

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.0005	<0.0005	<0.0005	<0.0005		
7/11/2016	<0.0005	<0.0005		<0.0005		
7/12/2016			<0.0005			
8/30/2016	<0.0005	<0.0005	<0.0005	<0.0005		
10/19/2016	<0.0005	<0.0005	<0.0005	<0.0005		
12/6/2016	<0.0005	<0.0005	<0.0005	<0.0005		
1/24/2017	<0.0005	0.0001 (J)	<0.0005	<0.0005		
3/21/2017	<0.0005	7E-05 (J)	<0.0005	<0.0005		
5/22/2017	<0.0005	0.0001 (J)	<0.0005			
5/23/2017				<0.0005		
4/2/2018	<0.0005	<0.0005		<0.0005		
4/3/2018			<0.0005			
6/4/2018	<0.0005	0.00014 (J)	<0.0005	<0.0005		
10/1/2018	<0.0005	<0.0005	<0.0005	<0.0005		
3/11/2019				<0.0005		
3/12/2019	<0.0005	0.00013 (J)	<0.0005			
4/1/2019			<0.0005			
4/2/2019	<0.0005	0.00015 (J)		<0.0005		
9/23/2019	<0.0005	<0.0005	<0.0005			
9/24/2019				<0.0005		
3/2/2020	<0.0005	<0.0005	<0.0005	<0.0005		
3/25/2020	<0.0005	0.00014 (J)	<0.0005			
3/26/2020				<0.0005		
9/15/2020	<0.0005	0.00012 (J)	<0.0005	<0.0005		
9/16/2020						<0.0005
9/17/2020					<0.0005	
11/10/2020						<0.0005
11/11/2020					<0.0005	
12/15/2020					<0.0005	<0.0005
1/19/2021						<0.0005
1/20/2021					<0.0005	
2/8/2021	<0.0005			<0.0005	<0.0005	
2/9/2021		0.00016 (J)	<0.0005			<0.0005
3/10/2021	<0.0005			<0.0005	<0.0005	
3/11/2021		<0.0005	<0.0005			<0.0005
8/11/2021	<0.0005					<0.0005
8/12/2021		0.00014 (J)	<0.0005	<0.0005	<0.0005	
2/1/2022	<0.0005	0.00017 (J)	<0.0005			<0.0005
2/7/2022				<0.0005	<0.0005	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.0005				
5/20/2016			<0.0005			
5/23/2016				0.000139 (J)	0.00271 (J)	<0.0005
7/11/2016		<0.0005	<0.0005			
7/12/2016				<0.0005	0.0019	<0.0005
8/30/2016		<0.0005	<0.0005			
9/1/2016				0.0001 (J)	0.0017	<0.0005
10/20/2016		<0.0005	<0.0005			
10/24/2016				0.0002 (J)	0.0018	
10/25/2016						<0.0005
12/7/2016				0.0001 (J)	0.0018	<0.0005
12/8/2016		<0.0005	<0.0005			
1/24/2017		<0.0005	<0.0005			
1/26/2017				0.0001 (J)	0.0013	<0.0005
3/21/2017		<0.0005	<0.0005			
3/22/2017						<0.0005
3/23/2017				0.0002 (J)	0.002	
5/23/2017		<0.0005	<0.0005			
5/24/2017				0.0001 (J)	0.0041	<0.0005
4/3/2018		<0.0005	<0.0005		0.0022	<0.0005
4/4/2018				<0.0005		
6/5/2018		<0.0005	<0.0005			
6/6/2018				0.00012 (J)	0.0021	<0.0005
10/2/2018		<0.0005	<0.0005			
10/3/2018				0.0001 (J)	0.0026	<0.0005
3/12/2019		<0.0005	<0.0005			
3/14/2019				<0.0005	0.0024	
3/15/2019						<0.0005
4/2/2019		<0.0005	<0.0005			
4/4/2019					0.0018	<0.0005
4/5/2019				7.9E-05 (J)		
9/24/2019		<0.0005	<0.0005	<0.0005	0.0014 (J)	
9/25/2019						<0.0005
3/2/2020		<0.0005	<0.0005			
3/3/2020				<0.0005	0.0015 (J)	<0.0005
3/25/2020			<0.0005			
3/26/2020		<0.0005			0.0016 (J)	
3/30/2020				<0.0005		<0.0005
9/15/2020		<0.0005	<0.0005			
9/16/2020	<0.0005					
9/17/2020					0.0016 (J)	<0.0005
9/18/2020				<0.0005		
11/10/2020	<0.0005					
12/15/2020	<0.0005					
1/19/2021	<0.0005					
2/9/2021	<0.0005	<0.0005	<0.0005			
2/10/2021						<0.0005
2/11/2021				<0.0005		
2/12/2021					0.0014 (J)	
3/10/2021	<0.0005					
3/11/2021		<0.0005	<0.0005			
3/16/2021					0.0011	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/17/2021				<0.0005		<0.0005
8/12/2021		<0.0005	<0.0005			
8/13/2021	<0.0005					
8/18/2021				0.00013 (J)		
8/19/2021					0.0012	<0.0005
2/1/2022	<0.0005					
2/7/2022		<0.0005	<0.0005			
2/8/2022					0.0011	<0.0005
2/9/2022				<0.0005		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.0005					
5/24/2016		<0.0005				
7/12/2016	<0.0005	0.0022				
9/1/2016	<0.0005	0.0024				
10/25/2016	<0.0005	0.0022				
12/7/2016	<0.0005					
12/8/2016		0.0024				
1/26/2017	<0.0005	0.0025				
3/22/2017	7E-05 (J)					
3/23/2017		0.0025				
5/25/2017	<0.0005	0.0027				
4/3/2018	<0.0005	0.0022				
6/5/2018		0.0022				
6/6/2018	<0.0005					
10/3/2018	<0.0005	0.0027				
3/14/2019		0.0019			<0.0005	
3/15/2019	<0.0005		<0.0005	0.00082 (J)		
4/4/2019			<0.0005			
4/5/2019	<0.0005	0.0017		0.00064 (J)	<0.0005	
9/25/2019	<0.0005	0.0023 (J)	<0.0005			
9/26/2019					<0.0005	
9/27/2019				0.0014 (J)		
3/2/2020				0.0021 (J)	<0.0005	
3/3/2020	<0.0005	0.0021 (J)	<0.0005			
3/27/2020				0.0019 (J)		
3/31/2020	<0.0005	0.0017 (J)				
4/1/2020			<0.0005		<0.0005	0.00022 (J)
6/17/2020			<0.0005			0.00021 (J)
9/15/2020		0.0019 (J)				
9/16/2020	<0.0005					
9/17/2020				0.0021 (J)	0.0006 (J)	
9/21/2020			<0.0005			0.00016 (J)
2/11/2021	<0.0005	0.0016 (J)	<0.0005			
2/12/2021					0.00045 (J)	0.00017 (J)
2/15/2021				0.002 (J)		
3/17/2021				0.0022	0.00057	
3/18/2021	<0.0005	0.0015	<0.0005			0.00019 (J)
8/18/2021	<0.0005					0.00017 (J)
8/19/2021		0.0014	<0.0005	0.0021	0.00012 (J)	
2/8/2022	<0.0005	0.00076	<0.0005	0.002		0.00013 (J)
2/10/2022					0.00024 (J)	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	<0.0005	0.00053 (J)	<0.0005	
9/21/2020		0.001 (J)		
9/23/2020	<0.0005		<0.0005	
2/11/2021			<0.0005	
2/15/2021		0.0017 (J)		
3/12/2021			<0.0005	
3/19/2021		0.0018		
8/16/2021	0.00023 (J)			
8/18/2021		0.0015	<0.0005	0.00094
2/8/2022		0.0015	<0.0005	0.00024 (J)
2/9/2022	0.00072			

Time Series

Constituent: Calcium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	138	22.9	76.2	48.4		
7/11/2016	97.2	22.3		73		
7/12/2016			61.5			
8/30/2016	97.5	26.4	65.1	85.7		
10/19/2016	99.2	21.7	73.2	89.7		
12/6/2016	105	18.2	74.9	80		
1/24/2017	95.7	18.5	69.6	30.8		
3/21/2017	106	18.6	75.7	34		
5/22/2017	107	17.8	71.5			
5/23/2017				43		
10/3/2017	102	20.2	76.3	46.9		
6/4/2018	124	19.1	73.4	81.9		
10/1/2018	108	20.5 (J)	80.9	22 (J)		
4/1/2019			80.5			
4/2/2019	132	22.5 (J)		76		
9/23/2019	118	19.5	71			
9/24/2019				36.6		
3/25/2020	127	23	89.8			
3/26/2020				14.9		
9/15/2020	103	21.1	73.1	20.4		
9/16/2020						56
9/17/2020					43.8	
11/10/2020						63.3
11/11/2020					44.4	
12/15/2020					47.3	62.6
1/19/2021						60.1
1/20/2021					41.8	
3/10/2021	111			5.9	43.4	
3/11/2021		43.8	83.8			59.6
8/11/2021	113					61
8/12/2021		21.9	84	5.4	43.6	
2/1/2022	106	27.2	85.1			55.9
2/7/2022				5.9	48.7	

Time Series

Constituent: Calcium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		35.5				
5/20/2016			56.1			
5/23/2016				664	184	146
7/11/2016		35.4	49.3			
7/12/2016				528	186	142
8/30/2016		28	53.9			
9/1/2016				586	189	141
10/20/2016		26.7	50.7			
10/24/2016				564	200	
10/25/2016						138
12/7/2016				590	203	146
12/8/2016		23.5	49.2			
1/24/2017		24.5	48.3			
1/26/2017				558	212	139
3/21/2017		30.8	51.3			
3/22/2017						150
3/23/2017				652	229	
5/23/2017		24.2	49.1			
5/24/2017				617	265	153
10/3/2017		29	55.1			
10/4/2017				644	230	156
6/5/2018		27.8	54.5			
6/6/2018				606	250	177
10/2/2018		28.9	54.7			
10/3/2018				558	234	160
4/2/2019		26.3	49.7			
4/4/2019					214	196
4/5/2019				606		
9/24/2019		29.3	52.5	507	202	
9/25/2019						185
3/25/2020			58.1			
3/26/2020		27.8			240	
3/30/2020				600		208
9/15/2020		27.9	49.9			
9/16/2020	30					
9/17/2020					188	190
9/18/2020				623		
11/10/2020	33.6					
12/15/2020	28.7					
1/19/2021	33					
3/10/2021	18.3					
3/11/2021		28.3	53.1			
3/16/2021					196	
3/17/2021				572		198
8/12/2021		32	54.7			
8/13/2021	28.9					
8/18/2021				583		
8/19/2021					203	207
2/1/2022	24.8					
2/7/2022		30	53.4			
2/8/2022					186	218
2/9/2022				571		

Time Series

Constituent: Calcium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	225					
5/24/2016		403				
7/12/2016	199	328				
9/1/2016	213	379				
10/25/2016	206	362				
12/7/2016	212					
12/8/2016		366				
1/26/2017	198	394				
3/22/2017	239					
3/23/2017		440				
5/25/2017	292	492				
10/4/2017	305	470				
6/5/2018		425				
6/6/2018	299					
10/3/2018	286	421				
4/4/2019			427			
4/5/2019	340	400		178	352	
9/25/2019	305	437	420			
9/26/2019					306	
9/27/2019				202		
1/22/2020						638
3/27/2020				212		
3/31/2020	328	418				
4/1/2020			438		342	567
6/17/2020			434			561
9/15/2020		430				
9/16/2020	277					
9/17/2020				203	361	
9/21/2020			428			562
3/17/2021				200	341	
3/18/2021	266	407	382			574
8/18/2021	281					549
8/19/2021		416	365	203	307	
2/8/2022	280	418	366	221		548
2/10/2022					288	

Time Series

Constituent: Calcium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	584	517	165	
9/21/2020		503		
9/23/2020	556		158	
3/12/2021			170	
3/19/2021		552		
8/16/2021	554			
8/18/2021		546	180	532
2/8/2022		519	167	537
2/9/2022	557			

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	9.94	6.14	5.93	4.56		
7/11/2016	6.3	5.9		5		
7/12/2016			6.2			
8/30/2016	6	6.2	6.4	4.9		
10/19/2016	5.8	6.1	6.5	4.6		
12/6/2016	5.4	6	7.2	4.5		
1/24/2017	5.2	6.1	6.4	4.7		
3/21/2017	4.6	5.9	7.5	4.3		
5/22/2017	4.6	5.9	6.5			
5/23/2017				4.5		
10/3/2017	5.6	6.3	6.5	4.8		
6/4/2018	13.1	6.1	6.3	4.5		
10/1/2018	6.6	6.4	6.4	3.8		
4/1/2019			6.5			
4/2/2019	20.3	5.8		4.4		
9/23/2019	17.7	5.1	5.9			
9/24/2019				3.6		
3/25/2020	20.4	5.2	6.1			
3/26/2020				3.4		
9/15/2020	13.4	5	6	3.3		
9/16/2020						4.1
9/17/2020					5.8	
11/10/2020						4.4
11/11/2020					3.1	
12/15/2020					3.2	4.7
1/19/2021						4.1
1/20/2021					2.8	
3/10/2021	7.4			2.9	3	
3/11/2021		5.1	5.9			4.5
8/11/2021	9.6					3.5
8/12/2021		5.2	4.8	2.4	2.6	
2/1/2022	7.5	7	5.7			4.1
2/7/2022				2.4	3.1	

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		1.57				
5/20/2016			1.35			
5/23/2016				659	209	25.8
7/11/2016		2	1.7			
7/12/2016				620	190	34
8/30/2016		2	1.6			
9/1/2016				510	200	34
10/20/2016		2.2	1.6			
10/24/2016				110	200	
10/25/2016						35
12/7/2016				510	240	38
12/8/2016		2	1.6			
1/24/2017		1.6	1.9			
1/26/2017				640	260	41
3/21/2017		2	1.3			
3/22/2017						41
3/23/2017				600	280	
5/23/2017		1.7	1.2			
5/24/2017				510	240	44
10/3/2017		1.7	2.1			
10/4/2017				420	210	50
6/5/2018		1.6	1.2			
6/6/2018				357	196	50.6
10/2/2018		2.4	1.7			
10/3/2018				368	200	49.9
4/2/2019		1.7	1.6			
4/4/2019					138	76.8
4/5/2019				227		
9/24/2019		1.7	1.3	188	120	
9/25/2019						84.4
3/25/2020			1.2			
3/26/2020		1.4			142	
3/30/2020				236		80.2
9/15/2020		1.7	1.2			
9/16/2020	7.2					
9/17/2020					108	99.3
9/18/2020				288		
11/10/2020	7.8					
12/15/2020	9.4					
1/19/2021	9.5					
3/10/2021	12.3					
3/11/2021		1.4	1.2			
3/16/2021					103	
3/17/2021				233		93.8
8/12/2021		1.4	0.94 (J)			
8/13/2021	39.9					
8/18/2021				141		
8/19/2021					89.9	90.1
2/1/2022	44.8					
2/7/2022		1.4	1.1			
2/8/2022					76.6	96.4
2/9/2022				174		

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	94					
5/24/2016		280				
7/12/2016	100	300				
9/1/2016	95	270				
10/25/2016	98	290				
12/7/2016	89					
12/8/2016		300				
1/26/2017	99	340				
3/22/2017	100					
3/23/2017		350				
5/25/2017	99	290				
10/4/2017	130	260				
6/5/2018		261				
6/6/2018	166					
10/3/2018	193	302				
4/4/2019			299			
4/5/2019	195	217		131	195	
9/25/2019	139	181	245			
9/26/2019					204	
9/27/2019				176		
1/22/2020						231
3/27/2020				141		
3/31/2020	161	126				
4/1/2020			236		166	242
6/17/2020			223			250
9/15/2020		150				
9/16/2020	156					
9/17/2020				153	171	
9/21/2020			236			273
3/17/2021				127	151	
3/18/2021	138	90.2	208			199
8/18/2021	90.7					118
8/19/2021		95.8	173	118	137	
2/8/2022	117	105	196	110		166
2/10/2022					138	

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	259	229	151	
9/21/2020		257		
9/23/2020	294		166	
3/12/2021			124	
3/19/2021		250		
8/16/2021	264			
8/18/2021		149	122	123
2/8/2022		202	151	194
2/9/2022	251			

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.005	<0.005	<0.005	<0.005		
7/11/2016	<0.005	<0.005		<0.005		
7/12/2016			<0.005			
8/30/2016	<0.005	<0.005	<0.005	<0.005		
10/19/2016	<0.005	<0.005	<0.005	<0.005		
12/6/2016	<0.005	<0.005	<0.005	<0.005		
1/24/2017	<0.005	<0.005	<0.005	<0.005		
3/21/2017	0.0005 (J)	<0.005	<0.005	0.0004 (J)		
5/22/2017	<0.005	<0.005	0.0007 (J)			
5/23/2017				<0.005		
4/2/2018	<0.005	<0.005		<0.005		
4/3/2018			<0.005			
3/11/2019				<0.005		
3/12/2019	<0.005	<0.005	<0.005			
4/1/2019			<0.005			
4/2/2019	<0.005	0.0079 (J)		0.019		
9/23/2019	<0.005	0.00058 (J)	<0.005			
9/24/2019				<0.005		
3/2/2020	<0.005	0.00041 (J)	<0.005	0.0004 (J)		
3/25/2020	0.00072 (J)	<0.005	<0.005			
3/26/2020				<0.005		
9/15/2020	<0.005	<0.005	<0.005	<0.005		
9/16/2020						<0.005
9/17/2020					<0.005	
11/10/2020						<0.005
11/11/2020					0.00063 (J)	
12/15/2020					0.0025 (J)	<0.005
1/19/2021						<0.005
1/20/2021					<0.005	
2/8/2021	<0.005			<0.005	0.00078 (J)	
2/9/2021		<0.005	<0.005			0.00095 (J)
3/10/2021	<0.005			<0.005	<0.005	
3/11/2021		<0.005	<0.005			<0.005
8/11/2021	<0.005					<0.005
8/12/2021		<0.005	<0.005	<0.005	<0.005	
2/1/2022	<0.005	<0.005	<0.005			<0.005
2/7/2022				<0.005	<0.005	

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.005				
5/20/2016			<0.005			
5/23/2016				<0.005	<0.005	<0.005
7/11/2016		<0.005	<0.005			
7/12/2016				<0.005	<0.005	<0.005
8/30/2016		<0.005	<0.005			
9/1/2016				<0.005	<0.005	<0.005
10/20/2016		<0.005	<0.005			
10/24/2016				<0.005	<0.005	
10/25/2016						<0.005
12/7/2016				<0.005	<0.005	<0.005
12/8/2016		<0.005	<0.005			
1/24/2017		<0.005	<0.005			
1/26/2017				<0.005	<0.005	<0.005
3/21/2017		<0.005	0.0007 (J)			
3/22/2017						0.0021 (J)
3/23/2017				<0.005	0.0005 (J)	
5/23/2017		<0.005	<0.005			
5/24/2017				<0.005	<0.005	<0.005
4/3/2018		<0.005	<0.005		<0.005	<0.005
4/4/2018				<0.005		
3/12/2019		<0.005	<0.005			
3/14/2019				<0.005	<0.005	
3/15/2019						<0.005
4/2/2019		<0.005	<0.005			
4/4/2019					<0.005	<0.005
4/5/2019				<0.005		
9/24/2019		<0.005	<0.005	<0.005	0.00041 (J)	
9/25/2019						<0.005
3/2/2020		0.0005 (J)	<0.005			
3/3/2020				0.00042 (J)	<0.005	0.00071 (J)
3/25/2020			<0.005			
3/26/2020		<0.005			<0.005	
3/30/2020				0.00066 (J)		0.0004 (J)
9/15/2020		<0.005	<0.005			
9/16/2020	0.0012 (J)					
9/17/2020					<0.005	<0.005
9/18/2020				<0.005		
11/10/2020	0.00089 (J)					
12/15/2020	0.00072 (J)					
1/19/2021	0.0011 (J)					
2/9/2021	0.00066 (J)	<0.005	<0.005			
2/10/2021						<0.005
2/11/2021				<0.005		
2/12/2021					<0.005	
3/10/2021	<0.005					
3/11/2021		0.0011 (J)	<0.005			
3/16/2021					0.0012 (J)	
3/17/2021				<0.005		<0.005
8/12/2021		<0.005	<0.005			
8/13/2021	0.0016 (J)					
8/18/2021				<0.005		

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
8/19/2021					<0.005	<0.005
2/1/2022	0.0013 (J)					
2/7/2022		<0.005	<0.005			
2/8/2022					<0.005	<0.005
2/9/2022				<0.005		

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.005					
5/24/2016		<0.005				
7/12/2016	<0.005	<0.005				
9/1/2016	<0.005	<0.005				
10/25/2016	<0.005	<0.005				
12/7/2016	<0.005					
12/8/2016		<0.005				
1/26/2017	<0.005	<0.005				
3/22/2017	<0.005					
3/23/2017		0.0005 (J)				
5/25/2017	<0.005	<0.005				
4/3/2018	<0.005	<0.005				
3/14/2019		<0.005			<0.005	
3/15/2019	<0.005		<0.005	<0.005		
4/4/2019			<0.005			
4/5/2019	<0.005	<0.005		<0.005	<0.005	
9/25/2019	<0.005	<0.005	<0.005			
9/26/2019					<0.005	
9/27/2019				0.0004 (J)		
3/2/2020				<0.005	<0.005	
3/3/2020	0.0018 (J)	0.0004 (J)	<0.005			
3/27/2020				<0.005		
3/31/2020	<0.005	<0.005				
4/1/2020			<0.005		0.00086 (J)	0.00069 (J)
6/17/2020			0.00057 (J)			<0.005
9/15/2020		0.00063 (J)				
9/16/2020	<0.005					
9/17/2020				<0.005	<0.005	
9/21/2020			<0.005			<0.005
2/11/2021	0.00074 (J)	<0.005	<0.005			
2/12/2021					<0.005	<0.005
2/15/2021				<0.005		
3/17/2021				0.00075 (J)	0.00083 (J)	
3/18/2021	0.00069 (J)	<0.005	0.00074 (J)			<0.005
8/18/2021	<0.005					<0.005
8/19/2021		<0.005	<0.005	<0.005	<0.005	
2/8/2022	<0.005	<0.005	<0.005	<0.005		<0.005
2/10/2022					<0.005	

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.0059 (J)	<0.005	0.0048 (J)	
9/21/2020		0.00079 (J)		
9/23/2020	<0.005		<0.005	
2/11/2021			0.0014 (J)	
2/15/2021		<0.005		
3/12/2021			<0.005	
3/19/2021		0.00083 (J)		
8/16/2021	<0.005			
8/18/2021		<0.005	<0.005	<0.005
2/8/2022		<0.005	<0.005	<0.005
2/9/2022	<0.005			

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.005	0.0293	<0.005	<0.005		
7/11/2016	0.0004 (J)	0.0267		<0.005		
7/12/2016			<0.005			
8/30/2016	<0.005	0.028	<0.005	<0.005		
10/19/2016	<0.005	0.0201	<0.005	<0.005		
12/6/2016	<0.005	0.0184	<0.005	<0.005		
1/24/2017	<0.005	0.0206	<0.005	<0.005		
3/21/2017	<0.005	0.0251	<0.005	<0.005		
5/22/2017	<0.005	0.0263	<0.005			
5/23/2017				<0.005		
4/2/2018	<0.005	0.019		<0.005		
4/3/2018			<0.005			
6/4/2018	<0.005	0.025	<0.005	<0.005		
10/1/2018	<0.005	0.026	<0.005	<0.005		
3/11/2019				<0.005		
3/12/2019	<0.005	0.017	<0.005			
4/1/2019			<0.005			
4/2/2019	<0.005	0.019		<0.005		
9/23/2019	<0.005	0.038	<0.005			
9/24/2019				<0.005		
3/2/2020	<0.005	0.019	<0.005	0.00063 (J)		
3/25/2020	<0.005	0.02	<0.005			
3/26/2020				0.00058 (J)		
9/15/2020	<0.005	0.021	<0.005	<0.005		
9/16/2020						<0.005
9/17/2020					<0.005	
11/10/2020						<0.005
11/11/2020					<0.005	
12/15/2020					0.00049 (J)	<0.005
1/19/2021						<0.005
1/20/2021					<0.005	
2/8/2021	<0.005			0.00074 (J)	<0.005	
2/9/2021		0.02	<0.005			<0.005
3/10/2021	<0.005			0.00065 (J)	<0.005	
3/11/2021		0.013	<0.005			<0.005
8/11/2021	<0.005					<0.005
8/12/2021		0.022	<0.005	0.0007 (J)	<0.005	
2/1/2022	<0.005	0.025	<0.005			<0.005
2/7/2022				0.00068 (J)	<0.005	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.005				
5/20/2016			<0.005			
5/23/2016				<0.005	0.0419 (J)	<0.005
7/11/2016		0.001 (J)	<0.005			
7/12/2016				0.0232	0.0393	<0.005
8/30/2016		0.001 (J)	<0.005			
9/1/2016				0.0248	0.045	<0.005
10/20/2016		0.0008 (J)	<0.005			
10/24/2016				0.0253	0.0557	
10/25/2016						<0.005
12/7/2016				0.0269	0.0536	<0.005
12/8/2016		0.0006 (J)	<0.005			
1/24/2017		0.0006 (J)	<0.005			
1/26/2017				0.0294	0.055	<0.005
3/21/2017		0.0008 (J)	<0.005			
3/22/2017						<0.005
3/23/2017				0.0311	0.0715	
5/23/2017		0.0006 (J)	<0.005			
5/24/2017				0.0279	0.0446	<0.005
4/3/2018		<0.005	<0.005		0.032	<0.005
4/4/2018				0.025		
6/5/2018		<0.005	<0.005			
6/6/2018				0.027	0.032	<0.005
10/2/2018		<0.005	<0.005			
10/3/2018				0.023	0.051	<0.005
3/12/2019		0.00099 (J)	<0.005			
3/14/2019				0.025	0.038	
3/15/2019						<0.005
4/2/2019		0.0012 (J)	<0.005			
4/4/2019					0.035	0.00028 (J)
4/5/2019				0.021		
9/24/2019		0.00063 (J)	<0.005	0.026	0.022	
9/25/2019						<0.005
3/2/2020		0.00093 (J)	<0.005			
3/3/2020				0.029	0.03	0.00037 (J)
3/25/2020			<0.005			
3/26/2020		0.0013 (J)			0.022	
3/30/2020				0.028		<0.005
9/15/2020		0.00047 (J)	<0.005			
9/16/2020	<0.005					
9/17/2020					0.026	<0.005
9/18/2020				0.027		
11/10/2020	<0.005					
12/15/2020	<0.005					
1/19/2021	<0.005					
2/9/2021	<0.005	0.00071 (J)	<0.005			
2/10/2021						<0.005
2/11/2021				0.033		
2/12/2021					0.019	
3/10/2021	<0.005					
3/11/2021		0.0013 (J)	<0.005			
3/16/2021					0.018	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/17/2021				0.034		<0.005
8/12/2021		<0.005	<0.005			
8/13/2021	<0.005					
8/18/2021				0.033		
8/19/2021					0.011	<0.005
2/1/2022	<0.005					
2/7/2022		0.00055 (J)	<0.005			
2/8/2022					0.0081	<0.005
2/9/2022				0.038		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	0.0167					
5/24/2016		0.17 (J)				
7/12/2016	0.0148	0.168				
9/1/2016	0.0151	0.18				
10/25/2016	0.0141	0.188				
12/7/2016	0.0141					
12/8/2016		0.206				
1/26/2017	0.0154	0.195				
3/22/2017	0.0169					
3/23/2017		0.223				
5/25/2017	0.0154	0.209				
4/3/2018	0.016	0.19				
6/5/2018		0.19				
6/6/2018	0.018					
10/3/2018	0.016	0.19				
3/14/2019		0.16			0.0013 (J)	
3/15/2019	0.017		<0.005	0.028		
4/4/2019			0.00034 (J)			
4/5/2019	0.016	0.14		0.022	0.0012 (J)	
9/25/2019	0.015	0.18	<0.005			
9/26/2019					0.00098 (J)	
9/27/2019				0.035		
1/22/2020						0.052
3/2/2020				0.043	0.0011 (J)	
3/3/2020	0.016	0.15	<0.005			
3/27/2020				0.025		
3/31/2020	0.016	0.16				
4/1/2020			<0.005		0.0011 (J)	0.058
6/17/2020			<0.005			0.053
9/15/2020		0.16				
9/16/2020	0.013					
9/17/2020				0.029	0.00096 (J)	
9/21/2020			<0.005			0.047
2/11/2021	0.012	0.14	<0.005			
2/12/2021					0.001 (J)	0.055
2/15/2021				0.038		
3/17/2021				0.039	0.0011 (J)	
3/18/2021	0.012	0.14	<0.005			0.057
8/18/2021	0.009					0.054
8/19/2021		0.15	<0.005	0.022	0.00089 (J)	
2/8/2022	0.0066	0.16	<0.005	0.034		0.048
2/10/2022					0.001 (J)	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.011	0.091	0.0015 (J)	
9/21/2020		0.084		
9/23/2020	0.0056		<0.005	
2/11/2021			0.00048 (J)	
2/15/2021		0.095		
3/12/2021			<0.005	
3/19/2021		0.1		
8/16/2021	0.0093			
8/18/2021		0.085	<0.005	0.03
2/8/2022		0.09	<0.005	0.031
2/9/2022	0.0065			

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	0.397 (U)	0.627 (U)	0.342 (U)	0.662 (U)		
7/11/2016	0.738 (U)	1.38		1.19		
7/12/2016			0.499 (U)			
8/30/2016	0.581 (U)	1.05 (U)	0.976 (U)	0.847 (U)		
10/19/2016	0.213 (U)	1.11 (U)	0.626 (U)	2.34		
12/6/2016	0.444 (U)	0.741 (U)	0.805 (U)	0.925 (U)		
1/24/2017	0.373 (U)	0.908 (U)	0.336 (U)	0.607 (U)		
3/21/2017	0.816 (U)	0.567 (U)	0.358 (U)	0.074 (U)		
5/22/2017	0.554 (U)	0.638 (U)	0.744 (U)			
5/23/2017				0.55 (U)		
4/2/2018	0.405 (U)	0.761 (U)		0.371 (U)		
4/3/2018			0.684 (U)			
6/4/2018	1.13 (U)	0.975 (U)	0.0291 (U)	0.622 (U)		
10/1/2018	0.132 (U)	0.434 (U)	0.781 (U)	0.132 (U)		
3/11/2019				0.781 (U)		
3/12/2019	0.327 (U)	0.454 (U)	1.01 (U)			
4/1/2019			0.76 (U)			
4/2/2019	0.739 (U)	0.651 (U)		0.494 (U)		
9/24/2019				0.455 (U)		
9/30/2019	0.306 (U)	1.04 (U)	0.384 (U)			
3/2/2020	0.61 (U)	1.58	0.249 (U)	0.937 (U)		
3/25/2020	4.36	0.621 (U)	0.833 (U)			
3/26/2020				0.578 (U)		
9/15/2020	0.748 (U)	0.124 (U)	0.161 (U)	0.179 (U)		
9/16/2020						0.531 (U)
9/17/2020					0.665 (U)	
11/10/2020						0.788 (U)
11/11/2020					1.28	
12/15/2020					0.261 (U)	1.04 (U)
1/19/2021						0.685 (U)
1/20/2021					0.845 (U)	
2/8/2021	0.223 (U)			0.558 (U)	0.429 (U)	
2/9/2021		0.721 (U)	0.447 (U)			0.138 (U)
3/10/2021	0 (U)			0.281 (U)	1.21	
3/11/2021		0.737 (U)	0.128 (U)			1.51 (U)
8/11/2021	0.115 (U)					0.394 (U)
8/12/2021		0.746 (U)	0.389 (U)	0.359 (U)	0.11 (U)	
2/1/2022	0.143 (U)	0.588 (U)	0.266 (U)			1.12
2/7/2022				0.0978 (U)	0.066 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		0.685 (U)				
5/20/2016			0.843 (U)			
5/23/2016				0.568 (U)	0.171 (U)	
7/1/2016						0 (U)
7/11/2016		1.68	0.494 (U)			
7/12/2016				1.31	0.611 (U)	0.182 (U)
8/30/2016		2.42	0.946 (U)			
9/1/2016				1.64	0.766 (U)	1.23
10/20/2016		0.351 (U)	0.664 (U)			
10/24/2016				1.88	0.969	
10/25/2016						1.05 (U)
12/7/2016				1.35	0.302 (U)	1.11 (U)
12/8/2016		0.905 (U)	0.421 (U)			
1/24/2017		0.0774 (U)	0.965 (U)			
1/26/2017				2.1	0.626 (U)	1.29 (U)
3/21/2017		0.0599 (U)	0.139 (U)			
3/22/2017						0.453 (U)
3/23/2017				1.17	0.662 (U)	
5/23/2017		0.477 (U)	0.308 (U)			
5/24/2017				1 (U)	0.202 (U)	1.05 (U)
4/3/2018		0.858 (U)	0.828 (U)		0.384 (U)	0.783 (U)
4/4/2018				1.72		
6/5/2018		0.767 (U)	0.424 (U)			
6/6/2018				1.31 (U)	1.32 (U)	0.595 (U)
10/2/2018		0.489 (U)	0.643 (U)			
10/3/2018				1.48	0.858 (U)	1.03 (U)
3/12/2019		0.833 (U)	0.982 (U)			
3/14/2019				1.5	0.462 (U)	
3/15/2019						0.591 (U)
4/2/2019		1.07 (U)	0.621 (U)			
4/4/2019					0.512 (U)	0.96 (U)
4/5/2019				1.43 (U)		
9/24/2019		0.201 (U)	0.874 (U)	1.17	0.582 (U)	
9/25/2019						0.643 (U)
3/2/2020		0.547 (U)	0.676 (U)			
3/3/2020				1.84	1.43	1.32 (U)
3/25/2020			0.509 (U)			
3/26/2020		0.907 (U)			0.855 (U)	
3/30/2020				1.08 (U)		0.288 (U)
9/15/2020		0.601 (U)	1.36 (U)			
9/16/2020	0.422 (U)					
9/17/2020					0.395 (U)	1.1 (U)
9/18/2020				1.8 (U)		
11/10/2020	0.293 (U)					
12/15/2020	0.7 (U)					
1/19/2021	0.79 (U)					
2/9/2021	0.486 (U)	0.37 (U)	0.324 (U)			
2/10/2021						0.773 (U)
2/11/2021				0.73 (U)		
2/12/2021					1.65	
3/10/2021	0.811 (U)					
3/11/2021		1.07 (U)	0.601 (U)			

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/16/2021					0.801 (U)	
3/17/2021				1.84		0.228 (U)
8/12/2021		0.922 (U)	0.0804 (U)			
8/13/2021	1.2					
8/18/2021				0.858 (U)		
8/19/2021					0.527 (U)	0.668 (U)
2/1/2022	0.665 (U)					
2/7/2022		0.106 (U)	0.346 (U)			
2/8/2022					0.0242 (U)	0.168 (U)
2/9/2022				0.346 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	0.618 (U)					
5/24/2016		1.82				
7/12/2016	0.867	1.76				
9/1/2016	0.857 (U)	1.51				
10/25/2016	1.11 (U)	2.69				
12/7/2016	0.964 (U)					
12/8/2016		2.21				
1/26/2017	0.612 (U)	2.26				
3/22/2017	0.437 (U)					
3/23/2017		1.81				
5/25/2017	1.21 (U)	1.63				
4/3/2018	0.409 (U)	2.53				
6/5/2018		1.91				
6/6/2018	0.772 (U)					
10/3/2018	1.08 (U)	2.22				
3/14/2019		1.37 (U)			0.872 (U)	
3/15/2019	0.917 (U)		0.972 (U)	0.977		
4/4/2019			0.791 (U)			
4/5/2019	1.07 (U)	2.22		1.06 (U)	0.932 (U)	
9/25/2019	1.54	2.77	0.751 (U)			
9/26/2019					1.25	
9/27/2019				1.44 (U)		
3/2/2020				0.872 (U)	0.964 (U)	
3/3/2020	1.33	2.35	1.94			
3/27/2020				0.96 (U)		
3/31/2020	0.591 (U)	2.7				
4/1/2020			0.758 (U)		0.914 (U)	2.57
6/17/2020			0.691 (U)			1.43 (U)
9/15/2020		1.65				
9/16/2020	0.295 (U)					
9/17/2020				0.0879 (U)	0.32 (U)	
9/21/2020			0.436 (U)			2.53
2/11/2021	0.831 (U)	1.11	0.317 (U)			
2/12/2021					1.21 (U)	2.26
2/15/2021				0.215 (U)		
3/17/2021				0.981 (U)	0.579 (U)	
3/18/2021	0.856 (U)	1.63	0.5 (U)			0.733 (U)
8/18/2021	0.548 (U)					1.77
8/19/2021		1.45	1.17	0.689 (U)	0.69 (U)	
2/8/2022	1 (U)	0.93 (U)	0.463 (U)	0.0657 (U)		0.967 (U)
2/10/2022					0.919 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	1.36	2.02	1.79	
9/21/2020		3.85		
9/23/2020	0.563 (U)		0.98 (U)	
2/11/2021			0.12 (U)	
2/15/2021		1.52		
3/12/2021			0.578 (U)	
3/19/2021		0.524 (U)		
8/16/2021	0.693 (U)			
8/18/2021		1.67	1.31	0.973 (U)
2/8/2022		1.38	0.345 (U)	0.431 (U)
2/9/2022	0.297 (U)			

Time Series

Constituent: Field pH (s.u.) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	7.27	5.81	7.45	6.51		
7/11/2016	7.06	5.68		6.65		
7/12/2016			7.32			
8/30/2016	7.28	5.63	7.43	7.14		
10/19/2016	7.02	5.46	7.03	7.08		
12/6/2016	7.09	5.38	7.08	7		
1/24/2017	7.2	5.37	7.39	6.16		
3/21/2017	7.01	4.9	6.83	6.07		
5/22/2017	7.11	5.2	7.02			
5/23/2017				6.28		
10/3/2017	7.21	5.3	7.47	6.45		
4/2/2018	7.1	5.4		6.23		
4/3/2018			7.38			
6/4/2018	7.06	5.27	7.38	6.82		
10/1/2018	7.09	5.31	7.13	5.73		
3/11/2019				6.27		
3/12/2019	7.03	5.42	7.29			
4/1/2019			7.16			
4/2/2019	6.86	5.41		6.66		
9/23/2019	7.02	5.33	7.3			
9/24/2019				6.16		
3/2/2020	7.1	5.43	7.12	5.63		
3/25/2020	6.95	5.36	7.4			
3/26/2020				5.77		
9/15/2020	7.15	5.22	7.29	5.75		
9/16/2020						7.52
9/17/2020					7.62	
11/10/2020						7.27
11/11/2020					7.68	
12/15/2020					7.64	7.39
1/19/2021						7.39
1/20/2021					7.68	
2/8/2021	7.11			4.94	7.64	
2/9/2021		5.42	7.23			7.44
3/10/2021	6.95			5.28	7.7	
3/11/2021		5.8	7.33			7.46
8/11/2021	6.98					7.4
8/12/2021		5.05	7.31	5.26	7.7	
2/1/2022	7.19	5.24	7.45			7.52
2/7/2022				5.24	7.85	

Time Series

Constituent: Field pH (s.u.) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		6.62				
5/20/2016			7.58			
5/23/2016				4.56	6.17	7.15
7/11/2016		6.54	7.32			
7/12/2016				4.49	6.17	7.1
8/30/2016		6.38	7.69			
9/1/2016				4.54	6.22	7.29
10/20/2016		6.52	7.43			
10/24/2016				4.63	5.97	
10/25/2016						7.03
12/7/2016				4.6	5.87	6.85
12/8/2016		6.5	7.56			
1/24/2017		6.59	7.52			
1/26/2017				4.8	6.05	7.07
3/21/2017		6.55	7.4			
3/22/2017						7.15
3/23/2017				4.57	5.79	
5/23/2017		6.5	7.53			
5/24/2017				4.61	6.01	7.11
10/3/2017		6.63	7.51			
10/4/2017				4.74	5.82	7.17
4/3/2018		6.59	7.53		5.98	7.07
4/4/2018				4.5		
6/5/2018		6.44	7.37			
6/6/2018				4.49	6.12	7
10/2/2018		6.35	7.36			
10/3/2018				4.67	5.92	6.94
3/12/2019		6.42	7.5			
3/14/2019				4.66	5.71	
3/15/2019						7.09
4/2/2019		6.38	7.46			
4/4/2019					5.66	6.95
4/5/2019				4.67		
9/24/2019		6.4	7.41	4.77	6.33	
9/25/2019						6.92
3/2/2020		6.8	7.67			
3/3/2020				4.77	6	7.1
3/25/2020			7.39			
3/26/2020		6.38			6.03	
3/30/2020				4.57		7.09
9/15/2020		6.33	7.37			
9/16/2020	7.83					
9/17/2020					6.11	7.11
9/18/2020				4.88		
11/10/2020	7.84					
12/15/2020	7.87					
1/19/2021	7.86					
2/9/2021	7.84	6.35	7.4			
2/10/2021						7.08
2/11/2021				4.84		
2/12/2021					5.99	
3/10/2021	7.92					

Time Series

Constituent: Field pH (s.u.) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/11/2021		6.48	7.56			
3/16/2021					6.08	
3/17/2021				4.72		7.19
8/12/2021		6.46	7.47			
8/13/2021	7.77					
8/18/2021				4.9		
8/19/2021					6.18	7.04
2/1/2022	8.25					
2/7/2022		6.51	7.65			
2/8/2022					6.04	7.18
2/9/2022				4.97		

Time Series

Constituent: Field pH (s.u.) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	6.4					
5/24/2016		4.83				
7/12/2016	6.09	4.58				
9/1/2016	6.35	4.51				
10/25/2016	6.23	4.53				
12/7/2016	6.23					
12/8/2016		4.56				
1/26/2017	6.24	4.61				
3/22/2017	6.25					
3/23/2017		4.63				
5/25/2017	6.27	4.69				
10/4/2017	6.18	4.58				
4/3/2018	6.22	4.54				
6/5/2018		4.57				
6/6/2018	6.22					
10/3/2018	6.23	4.41				
3/14/2019		4.39			6.68	
3/15/2019	6.32		6.81	5.95		
4/4/2019			6.7			
4/5/2019	6.26	4.5		5.96	6.66	
9/25/2019	6.28	4.54	6.54			
9/26/2019					6.64	
9/27/2019				5.81		
3/2/2020				5.97	7.05	
3/3/2020	6.35	4.55	6.72			
3/27/2020				5.71		
3/31/2020	6.28	4.43				
4/1/2020			6.9		6.8	4.35
6/17/2020			6.47			4.36
9/15/2020		4.47				
9/16/2020	6.35					
9/17/2020				5.66	6.71	
9/21/2020			6.92			4.48
2/11/2021	6.31	4.53	6.87			
2/12/2021					6.8	4.4
2/15/2021				5.48		
3/17/2021				5.57	6.86	
3/18/2021	6.43	4.54	6.95			4.27
8/18/2021	6.43					4.42
8/19/2021		4.43	6.85	6.05	6.72	
2/8/2022	6.42	4.59	7.09	5.37		4.42
2/10/2022					6.87	

Time Series

Constituent: Field pH (s.u.) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/17/2020	7.35	5.46	7.78	
9/21/2020		5.4		
9/23/2020	7.05		7.62	
2/11/2021			7.42	
2/15/2021		4.82		
3/12/2021			7.5	
3/19/2021		4.89		
8/16/2021	7.05			
8/18/2021		4.89	7.52	6.19
2/8/2022		4.86	7.63	6.57
2/9/2022	7.21			

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	0.105 (J)	0.0303 (J)	0.0513 (J)	0.036 (J)		
7/11/2016	0.16 (J)	0.05 (J)		0.09 (J)		
7/12/2016			0.12 (J)			
8/30/2016	0.09 (J)	0.06 (J)	0.09 (J)	0.06 (J)		
10/19/2016	0.1 (J)	0.04 (J)	0.1 (J)	0.07 (J)		
12/6/2016	0.11 (J)	0.36	0.21 (J)	0.07 (J)		
1/24/2017	0.09 (J)	<0.1	0.06 (J)	<0.1		
3/21/2017	0.13 (J)	<0.1	0.005 (J)	<0.1		
5/22/2017	0.12 (J)	<0.1	0.05 (J)			
5/23/2017				0.01 (J)		
10/3/2017	0.13 (J)	<0.1	0.13 (J)	<0.1		
4/2/2018	<0.1	<0.1		<0.1		
4/3/2018			<0.1			
6/4/2018	0.074 (J)	<0.1	<0.1	0.097 (J)		
10/1/2018	<0.1	<0.1	<0.1	<0.1		
3/11/2019				0.035 (J)		
3/12/2019	0.29 (J)	0.038 (J)	0.072 (J)			
4/1/2019			0.029 (J)			
4/2/2019	0.1 (J)	0.071 (J)		<0.1		
9/23/2019	0.078 (J)	<0.1	<0.1			
9/24/2019				<0.1		
3/2/2020	0.076 (J)	<0.1	<0.1	<0.1		
3/25/2020	0.098 (J)	<0.1	<0.1			
3/26/2020				<0.1		
9/15/2020	0.082 (J)	<0.1	<0.1	<0.1		
9/16/2020						0.22
9/17/2020					0.2	
11/10/2020						0.19
11/11/2020					0.1	
12/15/2020					0.11	0.21
1/19/2021						0.16
1/20/2021					0.082 (J)	
2/8/2021	0.078 (J)			<0.1	0.096 (J)	
2/9/2021		<0.1	0.074 (J)			0.19
3/10/2021	0.079 (J)			<0.1	0.11	
3/11/2021		0.1	<0.1			0.2
8/11/2021	0.058 (J)					0.15
8/12/2021		<0.1	<0.1	<0.1	0.079 (J)	
2/1/2022	0.064 (J)	<0.1	<0.1			0.19
2/7/2022				<0.1	0.085 (J)	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		0.08 (J)				
5/20/2016			0.065 (J)			
5/23/2016				<0.1	<0.1	0.038 (J)
7/11/2016		0.09 (J)	0.13 (J)			
7/12/2016				0.2 (J)	0.09 (J)	0.26 (J)
8/30/2016		0.08 (J)	0.07 (J)			
9/1/2016				0.08 (J)	0.22 (J)	0.42
10/20/2016		0.1 (J)	0.06 (J)			
10/24/2016				0.04 (J)	0.07 (J)	
10/25/2016						0.25 (J)
12/7/2016				0.11 (J)	0.23 (J)	0.23 (J)
12/8/2016		0.08 (J)	0.06 (J)			
1/24/2017		0.09 (J)	0.02 (J)			
1/26/2017				0.13 (J)	<0.1	0.02 (J)
3/21/2017		0.04 (J)	0.08 (J)			
3/22/2017						0.3
3/23/2017				0.28 (J)	0.12 (J)	
5/23/2017		0.04 (J)	0.006 (J)			
5/24/2017				0.32	0.31	0.46
10/3/2017		0.06 (J)	<0.1			
10/4/2017				0.52	0.6	<0.1
4/3/2018		<0.1	<0.1		<0.1	<0.1
4/4/2018				<0.1		
6/5/2018		0.083 (J)	0.055 (J)			
6/6/2018				0.25 (J)	0.17 (J)	<0.1
10/2/2018		<0.1	0.076 (J)			
10/3/2018				0.21 (J)	<0.1	<0.1
3/12/2019		0.079 (J)	0.061 (J)			
3/14/2019				0.24 (J)	<0.1	
3/15/2019						<0.1
4/2/2019		0.12 (J)	<0.1			
4/4/2019					0.066 (J)	<0.1
4/5/2019				0.66		
9/24/2019		0.058 (J)	<0.1	0.053 (J)	0.12 (J)	
9/25/2019						<0.1
3/2/2020		0.053 (J)	<0.1			
3/3/2020				<0.1	0.064 (J)	<0.1
3/25/2020			<0.1			
3/26/2020		0.066 (J)			<0.1	
3/30/2020				0.092 (J)		0.059 (J)
9/15/2020		0.061 (J)	<0.1			
9/16/2020	0.52					
9/17/2020					<0.1	<0.1
9/18/2020				<0.1		
11/10/2020	0.59					
12/15/2020	0.67					
1/19/2021	0.74					
2/9/2021	0.44	0.053 (J)	<0.1			
2/10/2021						0.21
2/11/2021				0.059 (J)		
2/12/2021					0.053 (J)	
3/10/2021	0.65					

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/11/2021		0.06 (J)	0.17			
3/16/2021					<0.1	
3/17/2021				0.076 (J)		<0.1
8/12/2021		<0.1	<0.1			
8/13/2021	0.87					
8/18/2021				<0.1		
8/19/2021					<0.1	<0.1
2/1/2022	0.96					
2/7/2022		<0.1	<0.1			
2/8/2022					<0.1	<0.1
2/9/2022				0.053 (J)		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.1					
5/24/2016		<0.1				
7/12/2016	0.09 (J)	0.54				
9/1/2016	0.03 (J)	0.49				
10/25/2016	0.07 (J)	0.58				
12/7/2016	0.54					
12/8/2016		0.63				
1/26/2017	<0.1	0.71				
3/22/2017	0.07 (J)					
3/23/2017		0.57				
5/25/2017	0.42	0.54				
10/4/2017	0.93	0.95				
4/3/2018	<0.1	0.33				
6/5/2018		0.66				
6/6/2018	0.23 (J)					
10/3/2018	<0.1	0.32				
3/14/2019		0.88			<0.1	
3/15/2019	<0.1		<0.1	<0.1		
4/4/2019			0.1 (J)			
4/5/2019	0.16 (J)	0.37		0.13 (J)	0.14 (J)	
9/25/2019	0.081 (J)	0.73	<0.1			
9/26/2019					0.16 (J)	
9/27/2019				0.28 (J)		
1/22/2020						0.18 (J)
3/2/2020				<0.1	<0.1	
3/3/2020	<0.1	0.34	<0.1			
3/27/2020				<0.1		
3/31/2020	<0.1	0.45				
4/1/2020			<0.1		<0.1	0.15 (J)
6/17/2020			<0.1			0.25
9/15/2020		0.31				
9/16/2020	0.058 (J)					
9/17/2020				<0.1	<0.1	
9/21/2020			<0.1			0.14
2/11/2021	0.058 (J)	0.71	<0.1			
2/12/2021					<0.1	0.25
2/15/2021				<0.1		
3/17/2021				<0.1	<0.1	
3/18/2021	0.057 (J)	0.64	<0.1			0.4
8/18/2021	0.062 (J)					0.16
8/19/2021		0.31	<0.1	<0.1	<0.1	
2/8/2022	0.055 (J)	0.19	<0.1	<0.1		0.14
2/10/2022					<0.1	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.082 (J)	0.053 (J)	0.1	
9/21/2020		<0.1		
9/23/2020	<0.1		0.065 (J)	
2/11/2021			0.077 (J)	
2/15/2021		0.093 (J)		
3/12/2021			0.061 (J)	
3/19/2021		0.082 (J)		
8/16/2021	0.066 (J)			
8/18/2021		0.052 (J)	0.05 (J)	0.072 (J)
2/8/2022		0.065 (J)	0.055 (J)	0.078 (J)
2/9/2022	0.051 (J)			

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.001	<0.001	<0.001	<0.001		
7/11/2016	<0.001	<0.001		<0.001		
7/12/2016			0.0001 (J)			
8/30/2016	<0.001	<0.001	<0.001	<0.001		
10/19/2016	<0.001	<0.001	<0.001	<0.001		
12/6/2016	<0.001	<0.001	<0.001	0.0002 (J)		
1/24/2017	<0.001	<0.001	<0.001	<0.001		
3/21/2017	<0.001	6E-05 (J)	0.0001 (J)	<0.001		
5/22/2017	<0.001	9E-05 (J)	<0.001			
5/23/2017				<0.001		
4/2/2018	<0.001	<0.001		<0.001		
4/3/2018			<0.001			
3/11/2019				<0.001		
3/12/2019	<0.001	<0.001	<0.001			
4/1/2019			<0.001			
4/2/2019	<0.001	<0.001		<0.001		
9/23/2019	7.8E-05 (J)	9.2E-05 (J)	<0.001			
9/24/2019				<0.001		
3/2/2020	4.8E-05 (J)	9.5E-05 (J)	<0.001	0.00026 (J)		
3/25/2020	<0.001	0.00011 (J)	<0.001			
3/26/2020				5.9E-05 (J)		
9/15/2020	<0.001	8E-05 (J)	4.2E-05 (J)	4.9E-05 (J)		
9/16/2020						5E-05 (J)
9/17/2020					6.2E-05 (J)	
11/10/2020						6.9E-05 (J)
11/11/2020					8.4E-05 (J)	
12/15/2020					0.00045 (J)	8.2E-05 (J)
1/19/2021						4.4E-05 (J)
1/20/2021					<0.001	
2/8/2021	5.8E-05 (J)			0.00024 (J)	8.1E-05 (J)	
2/9/2021		9.4E-05 (J)	<0.001			0.00029 (J)
3/10/2021	<0.001			0.00016 (J)	<0.001	
3/11/2021		7.6E-05 (J)	<0.001			9.4E-05 (J)
8/11/2021	<0.001					<0.001
8/12/2021		<0.001	<0.001	<0.001	<0.001	
2/1/2022	<0.001	<0.001	<0.001			<0.001
2/7/2022				<0.001	<0.001	

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.001				
5/20/2016			<0.001			
5/23/2016				0.00182 (J)	<0.001	<0.001
7/11/2016		<0.001	<0.001			
7/12/2016				0.0015 (J)	<0.001	<0.001
8/30/2016		<0.001	<0.001			
9/1/2016				0.0016 (J)	<0.001	<0.001
10/20/2016		0.0002 (J)	<0.001			
10/24/2016				0.0016 (J)	<0.001	
10/25/2016						<0.001
12/7/2016				0.0018 (J)	<0.001	<0.001
12/8/2016		<0.001	<0.001			
1/24/2017		<0.001	<0.001			
1/26/2017				0.002 (J)	<0.001	0.0001 (J)
3/21/2017		<0.001	<0.001			
3/22/2017						0.0002 (J)
3/23/2017				0.0019 (J)	0.001 (J)	
5/23/2017		9E-05 (J)	0.0003 (J)			
5/24/2017				0.0016 (J)	0.0001 (J)	0.0001 (J)
4/3/2018		<0.001	<0.001		<0.001	<0.001
4/4/2018				<0.001		
3/12/2019		<0.001	<0.001			
3/14/2019				0.0014 (J)	<0.001	
3/15/2019						<0.001
4/2/2019		<0.001	<0.001			
4/4/2019					7.2E-05 (J)	0.00016 (J)
4/5/2019				0.0012 (J)		
9/24/2019		<0.001	7.1E-05 (J)	0.0013 (J)	0.0002 (J)	
9/25/2019						<0.001
3/2/2020		<0.001	<0.001			
3/3/2020				0.0017 (J)	5.3E-05 (J)	0.00016 (J)
3/25/2020			<0.001			
3/26/2020		<0.001			<0.001	
3/30/2020				0.0015 (J)		7.3E-05 (J)
9/15/2020		<0.001	<0.001			
9/16/2020	0.00021 (J)					
9/17/2020					<0.001	7.8E-05 (J)
9/18/2020				0.0012 (J)		
11/10/2020	0.0002 (J)					
12/15/2020	0.00011 (J)					
1/19/2021	0.00019 (J)					
2/9/2021	0.0001 (J)	<0.001	<0.001			
2/10/2021						9.4E-05 (J)
2/11/2021				0.0015 (J)		
2/12/2021					<0.001	
3/10/2021	<0.001					
3/11/2021		<0.001	<0.001			
3/16/2021					<0.001	
3/17/2021				0.0019		5.8E-05 (J)
8/12/2021		<0.001	<0.001			
8/13/2021	<0.001					
8/18/2021				0.0015		

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
8/19/2021					<0.001	<0.001
2/1/2022	<0.001					
2/7/2022		<0.001	<0.001			
2/8/2022					<0.001	<0.001
2/9/2022				0.0014		

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.001					
5/24/2016		0.00154 (J)				
7/12/2016	<0.001	0.0012 (J)				
9/1/2016	<0.001	0.0014 (J)				
10/25/2016	<0.001	0.0015 (J)				
12/7/2016	<0.001					
12/8/2016		0.0017 (J)				
1/26/2017	<0.001	0.0013 (J)				
3/22/2017	0.0001 (J)					
3/23/2017		0.001 (J)				
5/25/2017	<0.001	0.0012 (J)				
4/3/2018	<0.001	<0.001				
3/14/2019		0.0015 (J)			<0.001	
3/15/2019	<0.001		<0.001	<0.001		
4/4/2019			<0.001			
4/5/2019	7.6E-05 (J)	0.0015 (J)		<0.001	<0.001	
9/25/2019	8.9E-05 (J)	0.0015 (J)	<0.001			
9/26/2019					<0.001	
9/27/2019				0.0001 (J)		
3/2/2020				9.4E-05 (J)	5.1E-05 (J)	
3/3/2020	0.00013 (J)	0.0013 (J)	4.7E-05 (J)			
3/27/2020				<0.001		
3/31/2020	7.7E-05 (J)	0.0014 (J)				
4/1/2020			4.8E-05 (J)		<0.001	0.0017 (J)
6/17/2020			<0.001			0.0017 (J)
9/15/2020		0.0014 (J)				
9/16/2020	6.5E-05 (J)					
9/17/2020				<0.001	0.00016 (J)	
9/21/2020			<0.001			0.0017 (J)
2/11/2021	0.00018 (J)	0.00098 (J)	0.00066 (J)			
2/12/2021					<0.001	0.0018 (J)
2/15/2021				3.6E-05 (J)		
3/17/2021				<0.001	<0.001	
3/18/2021	8.8E-05 (J)	0.00096 (J)	7.3E-05 (J)			0.0017
8/18/2021	<0.001					0.0016
8/19/2021		0.0013	<0.001	<0.001	<0.001	
2/8/2022	<0.001	0.0009 (J)	<0.001	<0.001		0.0014
2/10/2022					<0.001	

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.00087 (J)	0.00016 (J)	0.0017 (J)	
9/21/2020		0.00099 (J)		
9/23/2020	<0.001		8.2E-05 (J)	
2/11/2021			0.00039 (J)	
2/15/2021		0.00055 (J)		
3/12/2021			<0.001	
3/19/2021		0.00066 (J)		
8/16/2021	<0.001			
8/18/2021		<0.001	<0.001	<0.001
2/8/2022		<0.001	<0.001	<0.001
2/9/2022	<0.001			

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.03	<0.03	<0.03	<0.03		
7/11/2016	<0.03	0.0014 (J)		0.0015 (J)		
7/12/2016			0.0024 (J)			
8/30/2016	<0.03	<0.03	0.0025 (J)	0.0027 (J)		
10/19/2016	<0.03	<0.03	0.003 (J)	0.0042 (J)		
12/6/2016	<0.03	<0.03	0.0033 (J)	0.0046 (J)		
1/24/2017	<0.03	<0.03	0.003 (J)	<0.03		
3/21/2017	<0.03	0.0012 (J)	0.0034 (J)	<0.03		
5/22/2017	<0.03	<0.03	0.003 (J)			
5/23/2017				<0.03		
4/2/2018	<0.03	0.0015 (J)		<0.03		
4/3/2018			0.003 (J)			
6/4/2018	0.001 (J)	0.0016 (J)	0.0027 (J)	0.00097 (J)		
10/1/2018	0.00099 (J)	0.0013 (J)	0.0032 (J)	<0.03		
3/11/2019				<0.03		
3/12/2019	0.001 (J)	0.0018 (J)	0.0032 (J)			
4/1/2019			0.0032 (J)			
4/2/2019	0.001 (J)	0.0018 (J)		0.00098 (J)		
9/23/2019	0.0011 (J)	0.0016 (J)	0.0029 (J)			
9/24/2019				<0.03		
3/2/2020	0.0012 (J)	0.0017 (J)	0.0037 (J)	0.0012 (J)		
3/25/2020	0.00083 (J)	0.0017 (J)	0.0035 (J)			
3/26/2020				0.00095 (J)		
9/15/2020	0.00087 (J)	0.0015 (J)	0.0026 (J)	<0.03		
9/16/2020						0.0018 (J)
9/17/2020					0.0039 (J)	
11/10/2020						0.0013 (J)
11/11/2020					0.0086 (J)	
12/15/2020					0.008 (J)	0.0019 (J)
1/19/2021						0.0025 (J)
1/20/2021					0.01 (J)	
2/8/2021	0.00086 (J)			0.0013 (J)	0.0098 (J)	
2/9/2021		0.0012 (J)	0.0032 (J)			0.0026 (J)
3/10/2021	0.0009 (J)			0.0011 (J)	0.0094 (J)	
3/11/2021		0.0011 (J)	0.0035 (J)			0.0022 (J)
8/11/2021	0.00078 (J)					0.0024 (J)
8/12/2021		0.0012 (J)	0.0028 (J)	0.0013 (J)	0.0096 (J)	
2/1/2022	0.0011 (J)	0.0017 (J)	0.0037 (J)			0.0024 (J)
2/7/2022				0.0013 (J)	0.0097 (J)	

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.03				
5/20/2016			<0.03			
5/23/2016				<0.03	<0.03	<0.03
7/11/2016		0.0034 (J)	0.01 (J)			
7/12/2016				<0.03	<0.03	0.0037 (J)
8/30/2016		0.003 (J)	0.0095 (J)			
9/1/2016				<0.03	0.0021 (J)	0.0033 (J)
10/20/2016		0.0031 (J)	0.0105 (J)			
10/24/2016				<0.03	<0.03	
10/25/2016						0.0029 (J)
12/7/2016				<0.03	<0.03	0.0029 (J)
12/8/2016		0.0027 (J)	0.01 (J)			
1/24/2017		0.0028 (J)	0.0108 (J)			
1/26/2017				<0.03	<0.03	0.0028 (J)
3/21/2017		0.0037 (J)	0.0115 (J)			
3/22/2017						0.0025 (J)
3/23/2017				<0.03	0.0016 (J)	
5/23/2017		0.0033 (J)	0.011 (J)			
5/24/2017				<0.03	0.0029 (J)	0.0029 (J)
4/3/2018		0.0033 (J)	0.012 (J)		0.0026 (J)	0.0028 (J)
4/4/2018				<0.03		
6/5/2018		0.0034 (J)	0.011 (J)			
6/6/2018				<0.03	0.0013 (J)	0.0031 (J)
10/2/2018		0.0035 (J)	0.01 (J)			
10/3/2018				<0.03	0.0017 (J)	0.0026 (J)
3/12/2019		0.0032 (J)	0.011 (J)			
3/14/2019				<0.03	<0.03	
3/15/2019						0.0041 (J)
4/2/2019		0.0028 (J)	0.0095 (J)			
4/4/2019					0.0009 (J)	0.0032 (J)
4/5/2019				<0.03		
9/24/2019		0.0035 (J)	0.011 (J)	<0.03	0.0012 (J)	
9/25/2019						0.0038 (J)
3/2/2020		0.0036 (J)	0.012			
3/3/2020				<0.03	0.0084 (J)	0.0047 (J)
3/25/2020			0.011 (J)			
3/26/2020		0.0029 (J)			0.0061 (J)	
3/30/2020				<0.03		0.0041 (J)
9/15/2020		0.003 (J)	0.0095 (J)			
9/16/2020	0.014 (J)					
9/17/2020					0.0094 (J)	0.0043 (J)
9/18/2020				<0.03		
11/10/2020	0.025 (J)					
12/15/2020	0.028 (J)					
1/19/2021	0.034					
2/9/2021	0.026 (J)	0.003 (J)	0.01 (J)			
2/10/2021						0.0038 (J)
2/11/2021				<0.03		
2/12/2021					0.036	
3/10/2021	0.03					
3/11/2021		0.0037 (J)	0.012 (J)			
3/16/2021					0.032	

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/17/2021				<0.03		0.0048 (J)
8/12/2021		0.0032 (J)	0.0094 (J)			
8/13/2021	0.032					
8/18/2021				<0.03		
8/19/2021					0.0058 (J)	0.0042 (J)
2/1/2022	0.048					
2/7/2022		0.0029 (J)	0.0097 (J)			
2/8/2022					0.014 (J)	0.0034 (J)
2/9/2022				<0.03		

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.03					
5/24/2016		0.0142 (J)				
7/12/2016	<0.03	0.0141 (J)				
9/1/2016	<0.03	0.0158 (J)				
10/25/2016	<0.03	0.016 (J)				
12/7/2016	<0.03					
12/8/2016		0.0144 (J)				
1/26/2017	<0.03	0.0136 (J)				
3/22/2017	<0.03					
3/23/2017		0.0151 (J)				
5/25/2017	0.0011 (J)	0.0154 (J)				
4/3/2018	<0.03	0.013 (J)				
6/5/2018		0.013 (J)				
6/6/2018	<0.03					
10/3/2018	<0.03	0.015 (J)				
3/14/2019		0.011 (J)			0.0028 (J)	
3/15/2019	0.0011 (J)		0.025 (J)	0.002 (J)		
4/4/2019			0.019 (J)			
4/5/2019	0.00074 (J)	0.0084 (J)		0.0013 (J)	0.0021 (J)	
9/25/2019	0.0011 (J)	0.015 (J)	0.024 (J)			
9/26/2019					0.0023 (J)	
9/27/2019				0.0013 (J)		
3/2/2020				0.0015 (J)	0.0025 (J)	
3/3/2020	0.0012 (J)	0.012 (J)	0.026 (J)			
3/27/2020				0.0013 (J)		
3/31/2020	0.0009 (J)	0.012 (J)				
4/1/2020			0.026 (J)		0.0024 (J)	0.0011 (J)
6/17/2020			0.023 (J)			0.00097 (J)
9/15/2020		0.014 (J)				
9/16/2020	0.0012 (J)					
9/17/2020				0.0011 (J)	0.0021 (J)	
9/21/2020			0.022 (J)			0.00086 (J)
2/11/2021	0.0013 (J)	0.011 (J)	0.021 (J)			
2/12/2021					0.0023 (J)	0.0011 (J)
2/15/2021				0.0011 (J)		
3/17/2021				0.0012 (J)	0.0024 (J)	
3/18/2021	0.0014 (J)	0.013 (J)	0.026 (J)			0.0012 (J)
8/18/2021	0.0012 (J)					0.00097 (J)
8/19/2021		0.013 (J)	0.022 (J)	0.0012 (J)	0.0022 (J)	
2/8/2022	0.0014 (J)	0.01 (J)	0.022 (J)	0.0011 (J)		0.001 (J)
2/10/2022					0.0029 (J)	

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.0021 (J)	0.0046 (J)	0.038 (J)	
9/21/2020		0.0036 (J)		
9/23/2020	0.0011 (J)		0.031	
2/11/2021			0.034	
2/15/2021		0.0043 (J)		
3/12/2021			0.035	
3/19/2021		0.0045 (J)		
8/16/2021	0.001 (J)			
8/18/2021		0.0036 (J)	0.03	0.0022 (J)
2/8/2022		0.0039 (J)	0.029 (J)	0.001 (J)
2/9/2022	0.0022 (J)			

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.0002	<0.0002	<0.0002	<0.0002		
7/11/2016	<0.0002	<0.0002		<0.0002		
7/12/2016			<0.0002			
8/30/2016	4E-05 (J)	4E-05 (J)	<0.0002	5E-05 (J)		
10/19/2016	<0.0002	<0.0002	<0.0002	<0.0002		
12/6/2016	<0.0002	<0.0002	<0.0002	5E-05 (J)		
1/24/2017	<0.0002	<0.0002	<0.0002	0.0001 (J)		
3/21/2017	<0.0002	<0.0002	<0.0002	0.00016 (J)		
5/22/2017	<0.0002	<0.0002	<0.0002			
5/23/2017				5E-05 (J)		
4/2/2018	<0.0002	<0.0002		<0.0002		
4/3/2018			<0.0002			
3/11/2019				<0.0002		
3/12/2019	<0.0002	<0.0002	<0.0002			
3/2/2020	<0.0002	<0.0002	<0.0002	<0.0002		
9/16/2020						<0.0002
9/17/2020					<0.0002	
11/10/2020						<0.0002
11/11/2020					<0.0002	
12/15/2020					<0.0002	<0.0002
1/19/2021						<0.0002
1/20/2021					<0.0002	
2/8/2021	<0.0002			<0.0002	<0.0002	
2/9/2021		<0.0002	<0.0002			<0.0002
2/1/2022	<0.0002	<0.0002	<0.0002			<0.0002
2/7/2022				<0.0002	<0.0002	

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.0002				
5/20/2016			<0.0002			
5/23/2016				<0.0002	<0.0002	<0.0002
7/11/2016		<0.0002	<0.0002			
7/12/2016				<0.0002	<0.0002	<0.0002
8/30/2016		<0.0002	4.4E-05 (J)			
9/1/2016				<0.0002	<0.0002	<0.0002
10/20/2016		<0.0002	<0.0002			
10/24/2016				<0.0002	<0.0002	
10/25/2016						<0.0002
12/7/2016				<0.0002	<0.0002	<0.0002
12/8/2016		<0.0002	<0.0002			
1/24/2017		<0.0002	<0.0002			
1/26/2017				<0.0002	<0.0002	<0.0002
3/21/2017		<0.0002	<0.0002			
3/22/2017						<0.0002
3/23/2017				<0.0002	<0.0002	
5/23/2017		<0.0002	<0.0002			
5/24/2017				<0.0002	<0.0002	<0.0002
4/3/2018		<0.0002	<0.0002		<0.0002	<0.0002
4/4/2018				<0.0002		
3/12/2019		<0.0002	<0.0002			
3/14/2019				<0.0002	<0.0002	
3/15/2019						<0.0002
3/2/2020		<0.0002	<0.0002			
3/3/2020				<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002					
11/10/2020	<0.0002					
12/15/2020	<0.0002					
1/19/2021	<0.0002					
2/9/2021	<0.0002	<0.0002	<0.0002			
2/10/2021						<0.0002
2/11/2021				<0.0002		
2/12/2021					<0.0002	
2/1/2022	<0.0002					
2/7/2022		<0.0002	<0.0002			
2/8/2022					<0.0002	<0.0002
2/9/2022				<0.0002		

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.0002					
5/24/2016		<0.0002				
7/12/2016	<0.0002	<0.0002				
9/1/2016	<0.0002	6E-05 (J)				
10/25/2016	<0.0002	4E-05 (J)				
12/7/2016	<0.0002					
12/8/2016		<0.0002				
1/26/2017	<0.0002	8E-05 (J)				
3/22/2017	<0.0002					
3/23/2017		9E-05 (J)				
5/25/2017	<0.0002	8E-05 (J)				
4/3/2018	<0.0002	<0.0002				
3/14/2019		<0.0002			<0.0002	
3/15/2019	<0.0002		<0.0002	<0.0002		
3/2/2020				<0.0002	<0.0002	
3/3/2020	<0.0002	<0.0002	<0.0002			
2/11/2021	<0.0002	<0.0002	<0.0002			
2/12/2021					<0.0002	<0.0002
2/15/2021				<0.0002		
2/8/2022	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
2/10/2022					<0.0002	

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
2/11/2021			<0.0002	
2/15/2021		<0.0002		
2/8/2022		0.00014 (J)	<0.0002	<0.0002
2/9/2022	<0.0002			

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.01	<0.01	<0.01	<0.01		
7/11/2016	<0.01	<0.01		<0.01		
7/12/2016			<0.01			
8/30/2016	<0.01	<0.01	<0.01	<0.01		
10/19/2016	<0.01	<0.01	<0.01	<0.01		
12/6/2016	<0.01	<0.01	<0.01	<0.01		
1/24/2017	<0.01	<0.01	<0.01	<0.01		
3/21/2017	<0.01	<0.01	<0.01	<0.01		
5/22/2017	<0.01	<0.01	<0.01			
5/23/2017				<0.01		
4/2/2018	<0.01	<0.01		<0.01		
4/3/2018			<0.01			
3/11/2019				<0.01		
3/12/2019	<0.01	<0.01	<0.01			
4/1/2019			<0.01			
4/2/2019	<0.01	<0.01		<0.01		
9/23/2019	<0.01	<0.01	<0.01			
9/24/2019				<0.01		
3/2/2020	<0.01	<0.01	<0.01	<0.01		
3/25/2020	<0.01	<0.01	<0.01			
3/26/2020				<0.01		
9/15/2020	<0.01	<0.01	<0.01	<0.01		
9/16/2020						0.0044 (J)
9/17/2020					0.0037 (J)	
11/10/2020						0.0072 (J)
11/11/2020					<0.01	
12/15/2020					0.00082 (J)	0.0044 (J)
1/19/2021						0.0038 (J)
1/20/2021					<0.01	
2/8/2021	<0.01			<0.01	<0.01	
2/9/2021		<0.01	<0.01			0.0045 (J)
3/10/2021	<0.01			<0.01	<0.01	
3/11/2021		<0.01	<0.01			0.0064 (J)
8/11/2021	<0.01					0.0034 (J)
8/12/2021		<0.01	<0.01	<0.01	<0.01	
2/1/2022	<0.01	<0.01	<0.01			0.0036 (J)
2/7/2022				<0.01	0.00099 (J)	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.01				
5/20/2016			<0.01			
5/23/2016				<0.01	<0.01	<0.01
7/11/2016		<0.01	0.0008 (J)			
7/12/2016				<0.01	0.0007 (J)	<0.01
8/30/2016		<0.01	<0.01			
9/1/2016				<0.01	<0.01	<0.01
10/20/2016		<0.01	<0.01			
10/24/2016				<0.01	<0.01	
10/25/2016						<0.01
12/7/2016				<0.01	<0.01	<0.01
12/8/2016		<0.01	<0.01			
1/24/2017		<0.01	<0.01			
1/26/2017				<0.01	<0.01	<0.01
3/21/2017		<0.01	0.0002 (J)			
3/22/2017						<0.01
3/23/2017				<0.01	<0.01	
5/23/2017		<0.01	<0.01			
5/24/2017				<0.01	<0.01	<0.01
4/3/2018		<0.01	<0.01		<0.01	<0.01
4/4/2018				<0.01		
3/12/2019		<0.01	<0.01			
3/14/2019				<0.01	<0.01	
3/15/2019						<0.01
4/2/2019		<0.01	<0.01			
4/4/2019					<0.01	<0.01
4/5/2019				<0.01		
9/24/2019		<0.01	<0.01	<0.01	<0.01	
9/25/2019						<0.01
3/2/2020		<0.01	<0.01			
3/3/2020				<0.01	<0.01	<0.01
3/25/2020			<0.01			
3/26/2020		<0.01			<0.01	
3/30/2020				<0.01		<0.01
9/15/2020		<0.01	<0.01			
9/16/2020	0.0019 (J)					
9/17/2020					<0.01	<0.01
9/18/2020				<0.01		
11/10/2020	0.0018 (J)					
12/15/2020	0.0019 (J)					
1/19/2021	0.0035 (J)					
2/9/2021	0.0038 (J)	<0.01	<0.01			
2/10/2021						<0.01
2/11/2021				<0.01		
2/12/2021					<0.01	
3/10/2021	0.0019 (J)					
3/11/2021		<0.01	<0.01			
3/16/2021					<0.01	
3/17/2021				<0.01		<0.01
8/12/2021		<0.01	<0.01			
8/13/2021	0.0051 (J)					
8/18/2021				<0.01		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
8/19/2021					<0.01	<0.01
2/1/2022	0.0055 (J)					
2/7/2022		<0.01	<0.01			
2/8/2022					<0.01	<0.01
2/9/2022				<0.01		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.01					
5/24/2016		<0.01				
7/12/2016	<0.01	<0.01				
9/1/2016	<0.01	<0.01				
10/25/2016	<0.01	<0.01				
12/7/2016	<0.01					
12/8/2016		<0.01				
1/26/2017	<0.01	<0.01				
3/22/2017	<0.01					
3/23/2017		<0.01				
5/25/2017	<0.01	<0.01				
4/3/2018	<0.01	<0.01				
3/14/2019		<0.01			<0.01	
3/15/2019	<0.01		0.045	<0.01		
4/4/2019			0.033			
4/5/2019	<0.01	<0.01		0.00013 (J)	0.0014 (J)	
9/25/2019	<0.01	<0.01	0.038			
9/26/2019					0.0025 (J)	
9/27/2019				<0.01		
3/2/2020				<0.01	0.003 (J)	
3/3/2020	<0.01	<0.01	0.025			
3/27/2020				<0.01		
3/31/2020	<0.01	<0.01				
4/1/2020			0.024		0.0032 (J)	<0.01
6/17/2020			0.019			<0.01
9/15/2020		<0.01				
9/16/2020	<0.01					
9/17/2020				<0.01	0.0026 (J)	
9/21/2020			0.017			<0.01
2/11/2021	<0.01	<0.01	0.016			
2/12/2021					0.0039 (J)	<0.01
2/15/2021				<0.01		
3/17/2021				<0.01	0.0034 (J)	
3/18/2021	<0.01	<0.01	0.016			<0.01
8/18/2021	<0.01					<0.01
8/19/2021		<0.01	0.018	<0.01	0.0034 (J)	
2/8/2022	<0.01	<0.01	0.016	<0.01		<0.01
2/10/2022					0.0034 (J)	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	<0.01	<0.01	0.023	
9/21/2020		<0.01		
9/23/2020	<0.01		0.015	
2/11/2021			0.019	
2/15/2021		<0.01		
3/12/2021			0.014	
3/19/2021		<0.01		
8/16/2021	<0.01			
8/18/2021		<0.01	0.0083 (J)	<0.01
2/8/2022		<0.01	0.007 (J)	<0.01
2/9/2022	<0.01			

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.005	<0.005	<0.005	<0.005		
7/11/2016	<0.005	<0.005		<0.005		
7/12/2016			<0.005			
8/30/2016	<0.005	<0.005	<0.005	<0.005		
10/19/2016	<0.005	<0.005	<0.005	<0.005		
12/6/2016	<0.005	<0.005	<0.005	<0.005		
1/24/2017	<0.005	<0.005	<0.005	<0.005		
3/21/2017	<0.005	<0.005	<0.005	<0.005		
5/22/2017	<0.005	<0.005	<0.005			
5/23/2017				<0.005		
4/2/2018	<0.005	<0.005		<0.005		
4/3/2018			<0.005			
6/4/2018	<0.005	<0.005	<0.005	<0.005		
10/1/2018	<0.005	<0.005	<0.005	<0.005		
3/11/2019				<0.005		
3/12/2019	<0.005	<0.005	<0.005			
4/1/2019			<0.005			
4/2/2019	<0.005	<0.005		<0.005		
9/23/2019	<0.005	<0.005	<0.005			
9/24/2019				<0.005		
3/2/2020	<0.005	<0.005	<0.005	<0.005		
3/25/2020	<0.005	<0.005	<0.005			
3/26/2020				<0.005		
9/15/2020	<0.005	<0.005	<0.005	<0.005		
9/16/2020						<0.005
9/17/2020					<0.005	
11/10/2020						<0.005
11/11/2020					<0.005	
12/15/2020					<0.005	<0.005
1/19/2021						<0.005
1/20/2021					<0.005	
2/8/2021	<0.005			<0.005	<0.005	
2/9/2021		<0.005	<0.005			<0.005
3/10/2021	0.0047 (J)			<0.005	<0.005	
3/11/2021		<0.005	<0.005			<0.005
8/11/2021	<0.005					<0.005
8/12/2021		<0.005	<0.005	<0.005	<0.005	
2/1/2022	<0.005	<0.005	<0.005			<0.005
2/7/2022				<0.005	<0.005	

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.005				
5/20/2016			<0.005			
5/23/2016				0.017	<0.005	<0.005
7/11/2016		<0.005	<0.005			
7/12/2016				0.0146	<0.005	<0.005
8/30/2016		<0.005	<0.005			
9/1/2016				0.0137	<0.005	<0.005
10/20/2016		<0.005	<0.005			
10/24/2016				0.0135	0.0012 (J)	
10/25/2016						<0.005
12/7/2016				0.01 (J)	0.0041 (J)	<0.005
12/8/2016		<0.005	<0.005			
1/24/2017		0.0011 (J)	<0.005			
1/26/2017				0.0214	<0.005	<0.005
3/21/2017		<0.005	<0.005			
3/22/2017						<0.005
3/23/2017				0.0167	0.0016 (J)	
5/23/2017		<0.005	<0.005			
5/24/2017				0.0083 (J)	<0.005	<0.005
4/3/2018		<0.005	<0.005		<0.005	<0.005
4/4/2018				0.012		
6/5/2018		<0.005	<0.005			
6/6/2018				0.014	<0.005	<0.005
10/2/2018		<0.005	<0.005			
10/3/2018				0.0056 (J)	<0.005	<0.005
3/12/2019		<0.005	<0.005			
3/14/2019				0.0048 (J)	<0.005	
3/15/2019						<0.005
4/2/2019		<0.005	<0.005			
4/4/2019					0.00021 (J)	8.9E-05 (J)
4/5/2019				0.00091 (J)		
9/24/2019		<0.005	<0.005	0.0064 (J)	<0.005	
9/25/2019						<0.005
3/2/2020		<0.005	<0.005			
3/3/2020				0.0045 (J)	<0.005	<0.005
3/25/2020			<0.005			
3/26/2020		<0.005			<0.005	
3/30/2020				0.0049 (J)		<0.005
9/15/2020		<0.005	<0.005			
9/16/2020	<0.005					
9/17/2020					<0.005	<0.005
9/18/2020				0.0045 (J)		
11/10/2020	<0.005					
12/15/2020	<0.005					
1/19/2021	<0.005					
2/9/2021	<0.005	<0.005	<0.005			
2/10/2021						<0.005
2/11/2021				0.0072 (J)		
2/12/2021					<0.005	
3/10/2021	<0.005					
3/11/2021		<0.005	<0.005			
3/16/2021					<0.005	

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/17/2021				0.01 (J)		<0.005
8/12/2021		<0.005	<0.005			
8/13/2021	<0.005					
8/18/2021				0.0077		
8/19/2021					<0.005	<0.005
2/1/2022	<0.005					
2/7/2022		<0.005	<0.005			
2/8/2022					<0.005	<0.005
2/9/2022				0.0047 (J)		

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.005					
5/24/2016		<0.005				
7/12/2016	<0.005	0.036				
9/1/2016	0.0014 (J)	0.0347				
10/25/2016	<0.005	0.0282				
12/7/2016	0.0023 (J)					
12/8/2016		0.0373				
1/26/2017	<0.005	0.0385				
3/22/2017	<0.005					
3/23/2017		0.0414				
5/25/2017	<0.005	0.019				
4/3/2018	<0.005	0.029				
6/5/2018		0.038				
6/6/2018	<0.005					
10/3/2018	<0.005	0.017				
3/14/2019		0.016			<0.005	
3/15/2019	<0.005		<0.005	<0.005		
4/4/2019			<0.005			
4/5/2019	9.3E-05 (J)	0.0018 (J)		<0.005	<0.005	
9/25/2019	<0.005	0.02	<0.005			
9/26/2019					<0.005	
9/27/2019				<0.005		
3/2/2020				<0.005	<0.005	
3/3/2020	<0.005	0.014	<0.005			
3/27/2020				<0.005		
3/31/2020	<0.005	0.019				
4/1/2020			<0.005		<0.005	0.011
6/17/2020			<0.005			0.014
9/15/2020		0.059				
9/16/2020	<0.005					
9/17/2020				0.002 (J)	<0.005	
9/21/2020			<0.005			0.041
2/11/2021	<0.005	0.023	<0.005			
2/12/2021					<0.005	0.011
2/15/2021				<0.005		
3/17/2021				<0.005	<0.005	
3/18/2021	<0.005	0.019 (J)	<0.005			0.028
8/18/2021	<0.005					0.014
8/19/2021		0.01	<0.005	<0.005	<0.005	
2/8/2022	<0.005	0.0082	<0.005	<0.005		0.0078
2/10/2022					<0.005	

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.0025 (J)	0.014	<0.005	
9/21/2020		0.037		
9/23/2020	<0.005		<0.005	
2/11/2021			<0.005	
2/15/2021		0.01		
3/12/2021			<0.005	
3/19/2021		0.016 (J)		
8/16/2021	<0.005			
8/18/2021		0.014	<0.005	0.004 (J)
2/8/2022		0.0083	<0.005	<0.005
2/9/2022	<0.005			

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	66.9	48.6	42.3	1.22		
7/11/2016	41	45		3.7		
7/12/2016			44			
8/30/2016	36	42	40	6.8		
10/19/2016	46	44	43	11		
12/6/2016	59	44	43	13		
1/24/2017	46	46	48	5.7		
3/21/2017	63	46	45	1.7		
5/22/2017	77	48	46			
5/23/2017				1.5		
10/3/2017	42	47	48	1.3		
6/4/2018	71.8	47.8	46.6	4.9		
10/1/2018	49.1	48.1	48.6	0.59 (J)		
4/1/2019			50.4			
4/2/2019	84.3	48.7		4.9		
9/23/2019	70.2	47.2	43.9			
9/24/2019				<1		
3/25/2020	85.9	46.3	50.5			
3/26/2020				<1		
9/15/2020	47.3	51.5	44.7	<1		
9/16/2020						43
9/17/2020					10.9	
11/10/2020						39
11/11/2020					9.4	
12/15/2020					10.9	38.8
1/19/2021						37.3
1/20/2021					9.8	
3/10/2021	49.6			1.2	10.8	
3/11/2021		52.9	50.4			38.6
8/11/2021	48.9					30.5
8/12/2021		47.4	38.6	1.1	7.8	
2/1/2022	43.7	67.1	46			37.5
2/7/2022				2.9	10.4	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		25				
5/20/2016			34.4			
5/23/2016				1070	424	203
7/11/2016		27	34			
7/12/2016				1300	440	220
8/30/2016		23	36			
9/1/2016				1300	440	220
10/20/2016		19	36			
10/24/2016				280	420	
10/25/2016						230
12/7/2016				1300	450	220
12/8/2016		20	36			
1/24/2017		20	37			
1/26/2017				1400	490	250
3/21/2017		23	37			
3/22/2017						240
3/23/2017				1500	530	
5/23/2017		21	38			
5/24/2017				1400	500	230
10/3/2017		21	38			
10/4/2017				1400	560	220
6/5/2018		22.9	38			
6/6/2018				1520	469	233
10/2/2018		20.3	38.5			
10/3/2018				1550	600	215
4/2/2019		23.8	35.5			
4/4/2019					528	251
4/5/2019				1520		
9/24/2019		20.7	35.4	1110	382	
9/25/2019						223
3/25/2020			35.1			
3/26/2020		21.6			438	
3/30/2020				1150		223
9/15/2020		21.2	35.3			
9/16/2020	6.9					
9/17/2020					416	254
9/18/2020				1260		
11/10/2020	6.3					
12/15/2020	6.7					
1/19/2021	7.4					
3/10/2021	<1					
3/11/2021		22.7	35.5			
3/16/2021					379	
3/17/2021				1300		250
8/12/2021		17.4	28.6			
8/13/2021	56.1					
8/18/2021				768		
8/19/2021					223	228
2/1/2022	56.3					
2/7/2022		20.6	33			
2/8/2022					360	238
2/9/2022				1190		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	395					
5/24/2016		834				
7/12/2016	460	930				
9/1/2016	430	890				
10/25/2016	440	950				
12/7/2016	410					
12/8/2016		910				
1/26/2017	440	970				
3/22/2017	460					
3/23/2017		980				
5/25/2017	430	920				
10/4/2017	490	870				
6/5/2018		962				
6/6/2018	520					
10/3/2018	651	1170				
4/4/2019			915			
4/5/2019	642	1030		392	585	
9/25/2019	434	920	767			
9/26/2019					556	
9/27/2019				520		
1/22/2020						1250
3/27/2020				419		
3/31/2020	484	934				
4/1/2020			889		478	1210
6/17/2020			901			1210
9/15/2020		1080				
9/16/2020	467					
9/17/2020				468	490	
9/21/2020			1010			1290
3/17/2021				461	486	
3/18/2021	447	1050	829			1360
8/18/2021	280					740
8/19/2021		934	724	412 (M1)	432	
2/8/2022	364	960	779	449		1220
2/10/2022					430	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	1100	1160	286	
9/21/2020		1220		
9/23/2020	1080		256	
3/12/2021			237	
3/19/2021		1220		
8/16/2021	987			
8/18/2021		789	207	757
2/8/2022		1190	248	1150
2/9/2022	1050			

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	<0.001	<0.001	<0.001	<0.001		
7/11/2016	<0.001	<0.001		<0.001		
7/12/2016			<0.001			
8/30/2016	<0.001	<0.001	<0.001	<0.001		
10/19/2016	<0.001	<0.001	<0.001	<0.001		
12/6/2016	<0.001	<0.001	<0.001	<0.001		
1/24/2017	<0.001	<0.001	<0.001	<0.001		
3/21/2017	<0.001	3E-05 (J)	<0.001	<0.001		
5/22/2017	<0.001	<0.001	<0.001			
5/23/2017				<0.001		
4/2/2018	<0.001	<0.001		<0.001		
4/3/2018			<0.001			
6/4/2018	<0.001	<0.001	<0.001	<0.001		
10/1/2018	<0.001	<0.001	<0.001	<0.001		
3/11/2019				<0.001		
3/12/2019	<0.001	<0.001	<0.001			
4/1/2019			<0.001			
4/2/2019	<0.001	<0.001		<0.001		
9/23/2019	<0.001	<0.001	<0.001			
9/24/2019				<0.001		
3/2/2020	<0.001	<0.001	<0.001	<0.001		
3/25/2020	<0.001	<0.001	<0.001			
3/26/2020				<0.001		
9/15/2020	<0.001	<0.001	<0.001	<0.001		
9/16/2020						<0.001
9/17/2020					<0.001	
11/10/2020						<0.001
11/11/2020					<0.001	
12/15/2020					<0.001	<0.001
1/19/2021						<0.001
1/20/2021					<0.001	
2/8/2021	<0.001			<0.001	<0.001	
2/9/2021		<0.001	<0.001			<0.001
3/10/2021	<0.001			<0.001	<0.001	
3/11/2021		<0.001	<0.001			<0.001
8/11/2021	<0.001					<0.001
8/12/2021		<0.001	<0.001	<0.001	<0.001	
2/1/2022	<0.001	<0.001	<0.001			<0.001
2/7/2022				<0.001	<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		<0.001				
5/20/2016			<0.001			
5/23/2016				0.000306 (J)	<0.001	<0.001
7/11/2016		<0.001	<0.001			
7/12/2016				0.0003 (J)	<0.001	<0.001
8/30/2016		<0.001	<0.001			
9/1/2016				0.0003 (J)	<0.001	<0.001
10/20/2016		<0.001	<0.001			
10/24/2016				0.0004	<0.001	
10/25/2016						<0.001
12/7/2016				0.0003 (J)	<0.001	<0.001
12/8/2016		<0.001	<0.001			
1/24/2017		<0.001	<0.001			
1/26/2017				0.0003 (J)	<0.001	<0.001
3/21/2017		<0.001	<0.001			
3/22/2017						<0.001
3/23/2017				0.0003 (J)	<0.001	
5/23/2017		<0.001	<0.001			
5/24/2017				0.0003 (J)	<0.001	<0.001
4/3/2018		<0.001	<0.001		<0.001	<0.001
4/4/2018				0.00028 (J)		
6/5/2018		<0.001	<0.001			
6/6/2018				0.00029 (J)	<0.001	<0.001
10/2/2018		<0.001	<0.001			
10/3/2018				0.00029 (J)	<0.001	<0.001
3/12/2019		<0.001	<0.001			
3/14/2019				0.00028 (J)	<0.001	
3/15/2019						<0.001
4/2/2019		<0.001	<0.001			
4/4/2019					<0.001	<0.001
4/5/2019				0.00028 (J)		
9/24/2019		<0.001	<0.001	0.0003 (J)	<0.001	
9/25/2019						<0.001
3/2/2020		<0.001	<0.001			
3/3/2020				0.00026 (J)	<0.001	<0.001
3/25/2020			5.7E-05 (J)			
3/26/2020		<0.001			<0.001	
3/30/2020				0.00028 (J)		<0.001
9/15/2020		<0.001	<0.001			
9/16/2020	<0.001					
9/17/2020					<0.001	<0.001
9/18/2020				0.00028 (J)		
11/10/2020	<0.001					
12/15/2020	<0.001					
1/19/2021	<0.001					
2/9/2021	<0.001	<0.001	<0.001			
2/10/2021						<0.001
2/11/2021				0.00026 (J)		
2/12/2021					<0.001	
3/10/2021	<0.001					
3/11/2021		<0.001	<0.001			
3/16/2021					<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
3/17/2021				0.00034 (J)		<0.001
8/12/2021		<0.001	<0.001			
8/13/2021	<0.001					
8/18/2021				0.00027 (J)		
8/19/2021					<0.001	<0.001
2/1/2022	<0.001					
2/7/2022		<0.001	<0.001			
2/8/2022					<0.001	<0.001
2/9/2022				0.00025 (J)		

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	<0.001					
5/24/2016		<0.001				
7/12/2016	0.0001 (J)	0.0002 (J)				
9/1/2016	<0.001	<0.001				
10/25/2016	<0.001	<0.001				
12/7/2016	<0.001					
12/8/2016		<0.001				
1/26/2017	<0.001	<0.001				
3/22/2017	0.0001 (J)					
3/23/2017		0.0002 (J)				
5/25/2017	0.0001 (J)	0.0002 (J)				
4/3/2018	<0.001	0.00014 (J)				
6/5/2018		0.00016 (J)				
6/6/2018	<0.001					
10/3/2018	<0.001	<0.001				
3/14/2019		<0.001			<0.001	
3/15/2019	<0.001		<0.001	<0.001		
4/4/2019			<0.001			
4/5/2019	0.00013 (J)	0.00014 (J)		<0.001	<0.001	
9/25/2019	0.00012 (J)	0.00019 (J)	<0.001			
9/26/2019					<0.001	
9/27/2019				<0.001		
3/2/2020				<0.001	<0.001	
3/3/2020	0.00011 (J)	0.00013 (J)	<0.001			
3/27/2020				<0.001		
3/31/2020	0.00014 (J)	0.00015 (J)				
4/1/2020			<0.001		<0.001	0.00029 (J)
6/17/2020			<0.001			0.00028 (J)
9/15/2020		0.00016 (J)				
9/16/2020	<0.001					
9/17/2020				<0.001	<0.001	
9/21/2020			<0.001			0.00029 (J)
2/11/2021	<0.001	<0.001	<0.001			
2/12/2021					<0.001	0.00025 (J)
2/15/2021				<0.001		
3/17/2021				<0.001	<0.001	
3/18/2021	<0.001	0.00016 (J)	<0.001			0.00031 (J)
8/18/2021	<0.001					0.0004 (J)
8/19/2021		0.0002 (J)	<0.001	<0.001	<0.001	
2/8/2022	<0.001	<0.001	<0.001	<0.001		0.00025 (J)
2/10/2022					<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	0.00015 (J)	0.00013 (J)	<0.001	
9/21/2020		<0.001		
9/23/2020	<0.001		<0.001	
2/11/2021			<0.001	
2/15/2021		<0.001		
3/12/2021			<0.001	
3/19/2021		<0.001		
8/16/2021	<0.001			
8/18/2021		<0.001	<0.001	<0.001
2/8/2022		<0.001	<0.001	<0.001
2/9/2022	<0.001			

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-4 (bg)	HGWA-42D (bg)	HGWA-43D (bg)
5/19/2016	421	143	267	165		
7/11/2016	363	125		266		
7/12/2016			249			
8/30/2016	330	168	254	292		
10/19/2016	380	176	357	338		
12/6/2016	377	145	285	356		
1/24/2017	342	129	300	131		
3/21/2017	340	103	288	132		
5/22/2017	338	92	263			
5/23/2017				183		
10/3/2017	343	127	300	161		
6/4/2018	415	140	266	240		
10/1/2018	354	135	291	106		
4/1/2019			284			
4/2/2019	452	133		230		
9/23/2019	442	129	268			
9/24/2019				131		
3/25/2020	496	138	284			
3/26/2020				69		
9/15/2020	265	124	258	93		
9/16/2020						272
9/17/2020					188	
11/10/2020						307
11/11/2020					175	
12/15/2020					193	289
1/19/2021						270
1/20/2021					158	
3/10/2021	348			53	163	
3/11/2021		169	267			279
8/11/2021	366					277
8/12/2021		118	265	55	179	
2/1/2022	270	156	350			156
2/7/2022				54	190	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-44D (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-14	HGWC-15	HGWC-16
5/19/2016		168				
5/20/2016			223			
5/23/2016				4130	1270	570
7/11/2016		158	225			
7/12/2016				3140	1100	585
8/30/2016		141	232			
9/1/2016				3200	1180	625
10/20/2016		99	225			
10/24/2016				2920	1090	
10/25/2016						563
12/7/2016				2740	1040	561
12/8/2016		116	235			
1/24/2017		156	272			
1/26/2017				3080	1260	608
3/21/2017		144	222			
3/22/2017						599
3/23/2017				3060	1360	
5/23/2017		134	231			
5/24/2017				3140	1320	598
10/3/2017		147	243			
10/4/2017				3210	1340	626
6/5/2018		152	235			
6/6/2018				2620	1120	678
10/2/2018		146	228			
10/3/2018				2430	1140	700
4/2/2019		144	238			
4/4/2019					926	704
4/5/2019				2310		
9/24/2019		133	222	2470	1140	
9/25/2019						813
3/25/2020			240			
3/26/2020		104			1000	
3/30/2020				2590		787
9/15/2020		116	217			
9/16/2020	270					
9/17/2020					956	804
9/18/2020				2440		
11/10/2020	287					
12/15/2020	295					
1/19/2021	278					
3/10/2021	289					
3/11/2021		118	215			
3/16/2021					92	
3/17/2021				1640		768
8/12/2021		158	229			
8/13/2021	436					
8/18/2021				2350		
8/19/2021					958	816
2/1/2022	444					
2/7/2022		135	224			
2/8/2022					866	852
2/9/2022				2310		

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-17	HGWC-18	MW-21D	MW-22	MW-23D	MW-33
5/23/2016	1010					
5/24/2016		1900				
7/12/2016	976	1950				
9/1/2016	1060	2000				
10/25/2016	<25	1870				
12/7/2016	866					
12/8/2016		1930				
1/26/2017	1000	1950				
3/22/2017	1080					
3/23/2017		2080				
5/25/2017	1080	1970				
10/4/2017	1210	2200				
6/5/2018		1880				
6/6/2018	1180					
10/3/2018	1250	2180				
4/4/2019			1800			
4/5/2019	1260	1610		890	1400	
9/25/2019	1280	1960	1970			
9/26/2019					1400	
9/27/2019				1110		
1/22/2020						2310
3/27/2020				1100		
3/31/2020	1310	1860				
4/1/2020			1940		1530	2590
6/17/2020			2100			2540
9/15/2020		1890				
9/16/2020	1220					
9/17/2020				1090	1360	
9/21/2020			2060			2340
3/17/2021				998	990	
3/18/2021	1020	1390	1390			1790
8/18/2021	1290					3690
8/19/2021		1750	1920	1030	1440	
2/8/2022	1160	1770	1810	1070		2480
2/10/2022					1260	

Time Series

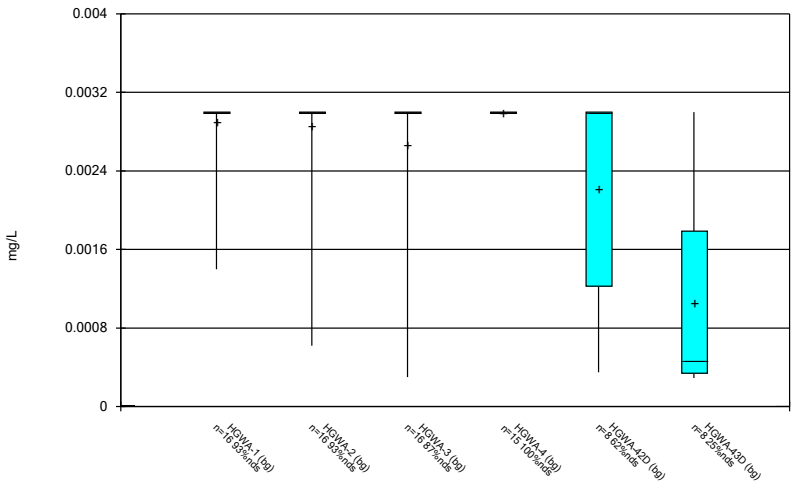
Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/26/2022 4:29 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-34D	MW-35	MW-37D	MW-51
6/18/2020	2320	2310	888	
9/21/2020		2210		
9/23/2020	2430		894	
3/12/2021			890	
3/19/2021		1690		
8/16/2021	2340			
8/18/2021		2390	950	2610
2/8/2022		2410	882	2430
2/9/2022	2260			

FIGURE B.

Box & Whiskers Plot

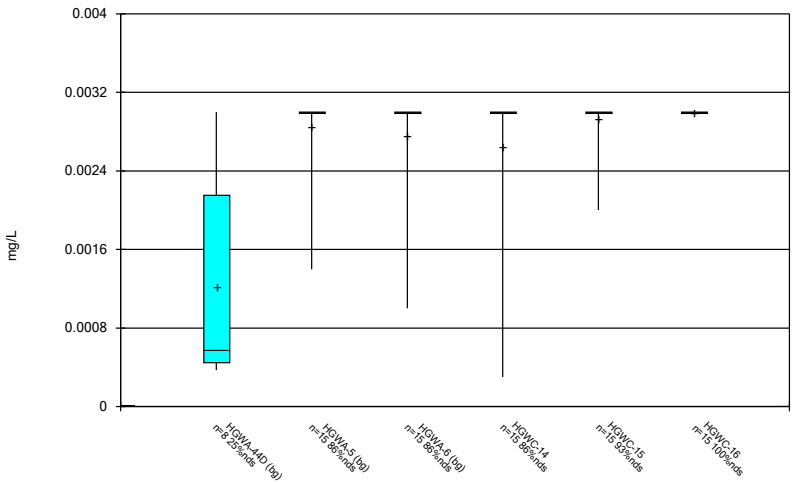


Constituent: Antimony Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

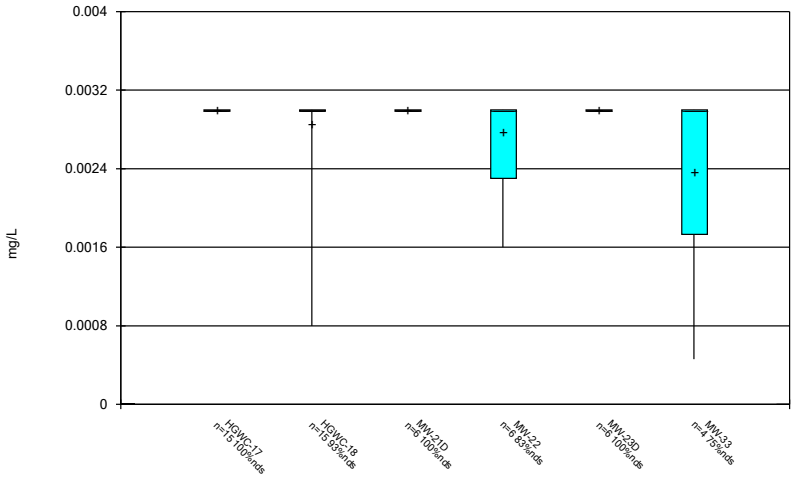


Constituent: Antimony Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

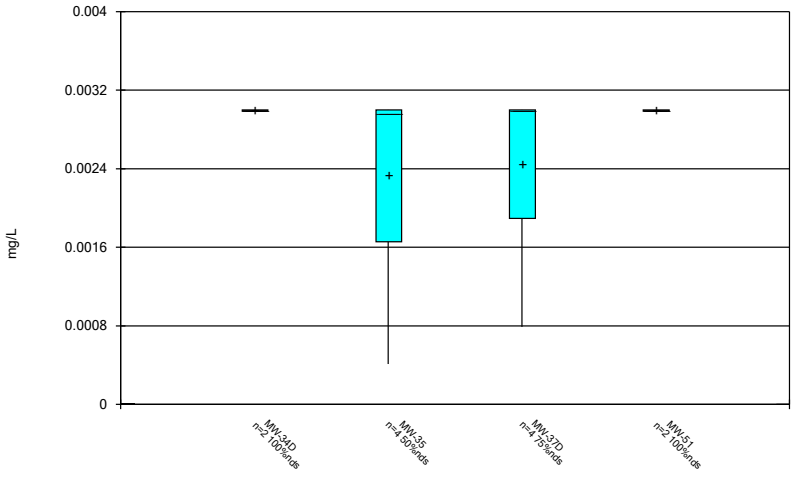


Constituent: Antimony Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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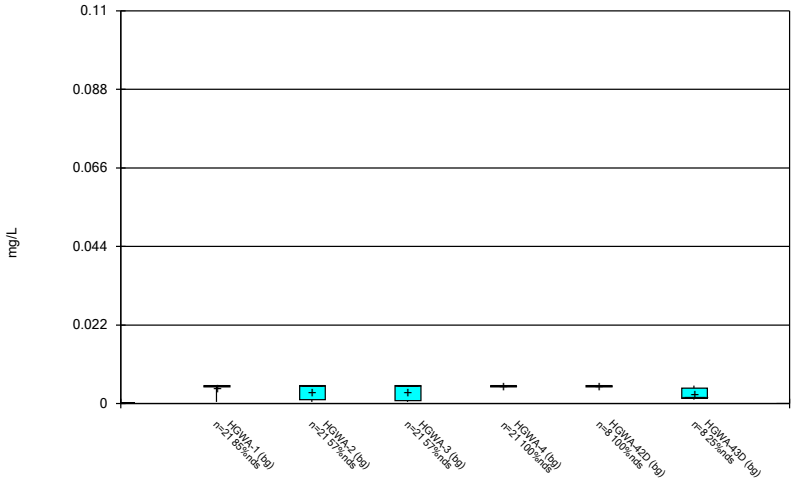
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

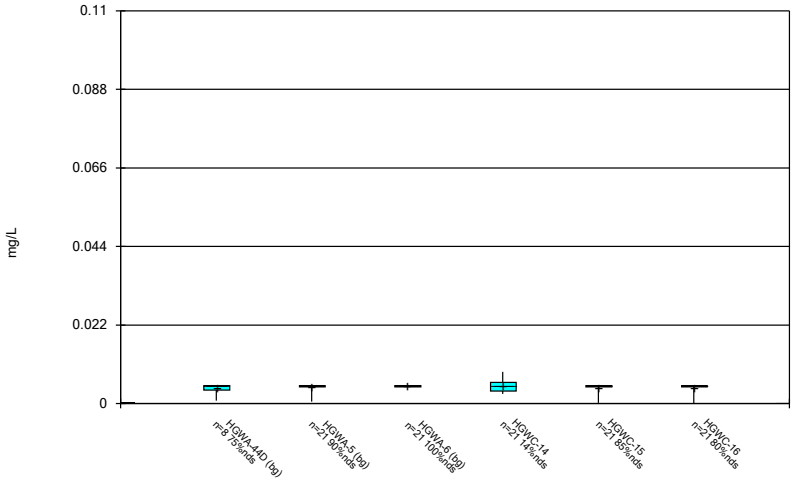


Constituent: Arsenic Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

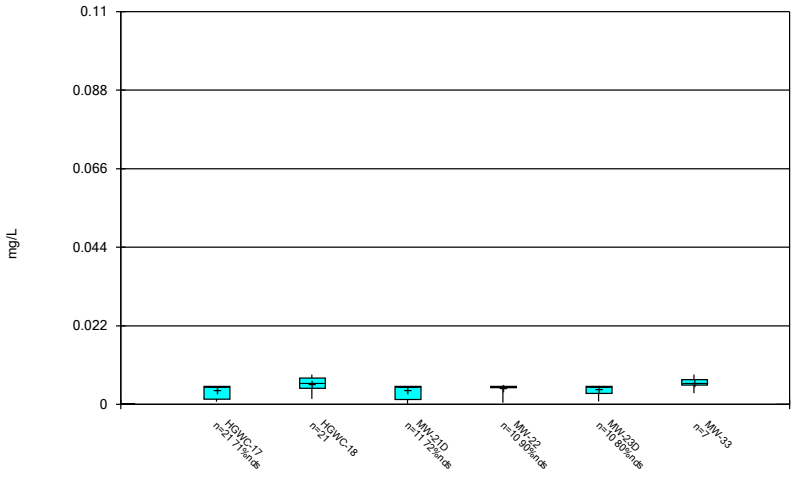


Constituent: Arsenic Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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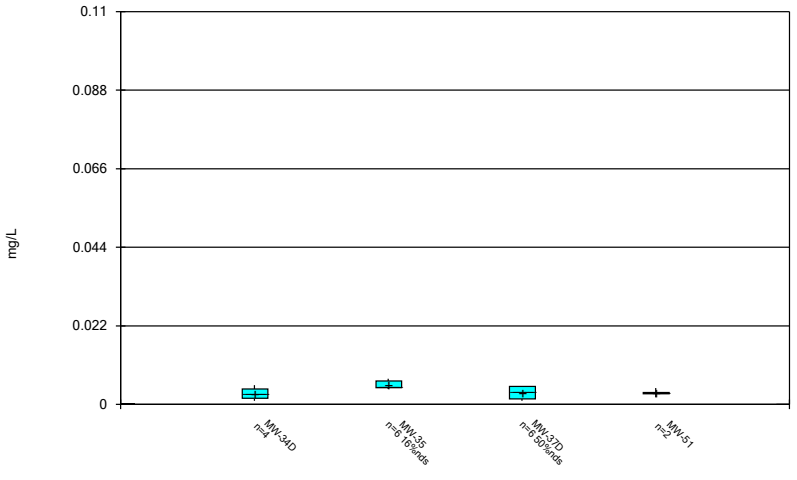
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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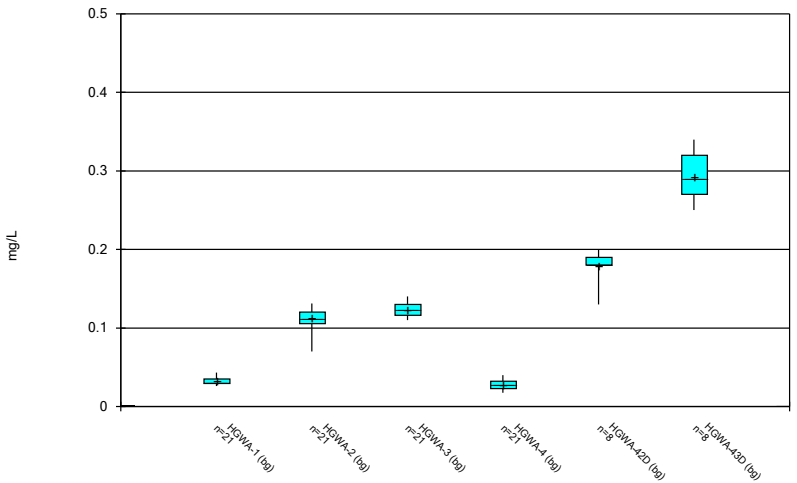
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

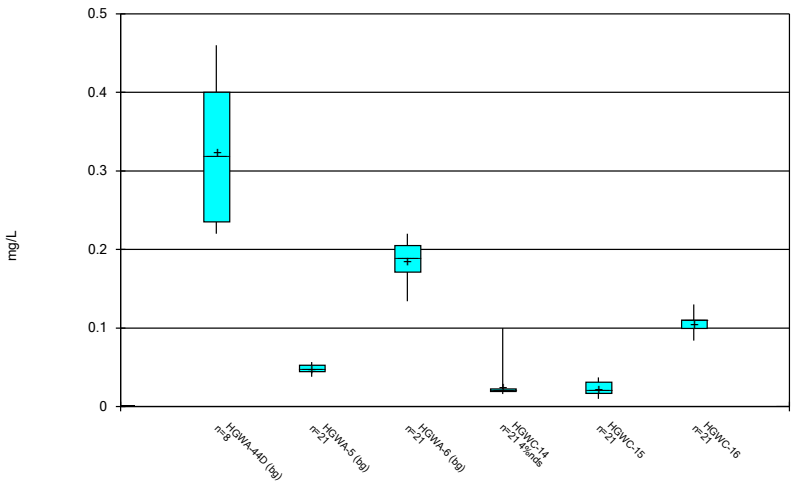


Constituent: Barium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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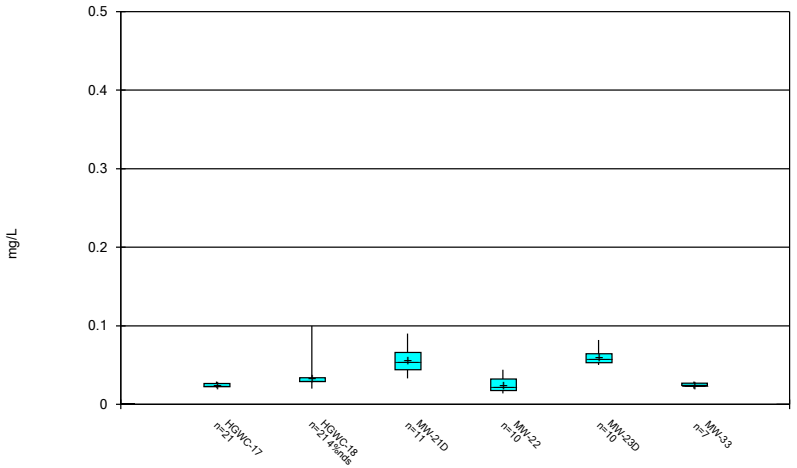
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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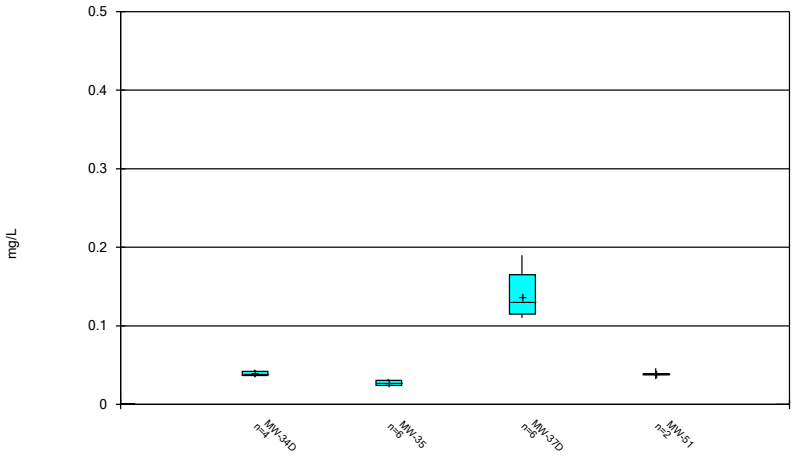
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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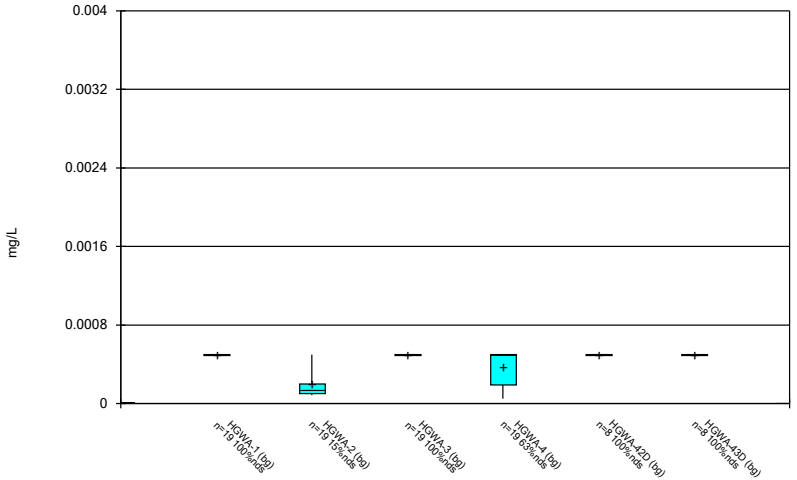
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

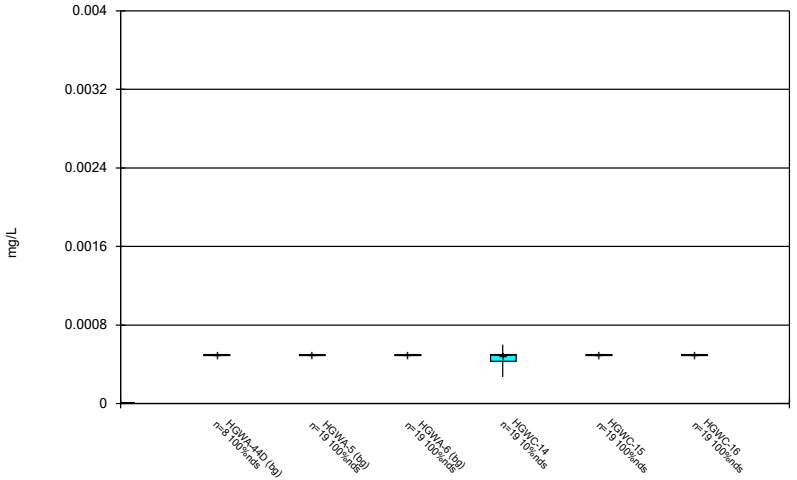


Constituent: Beryllium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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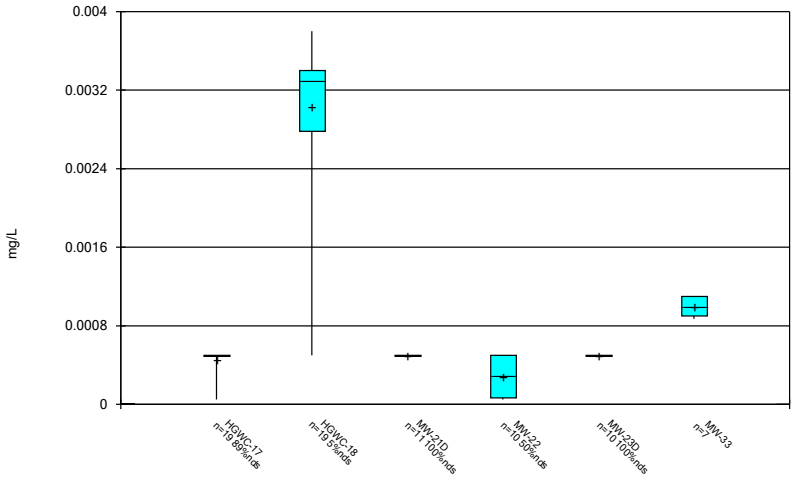
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

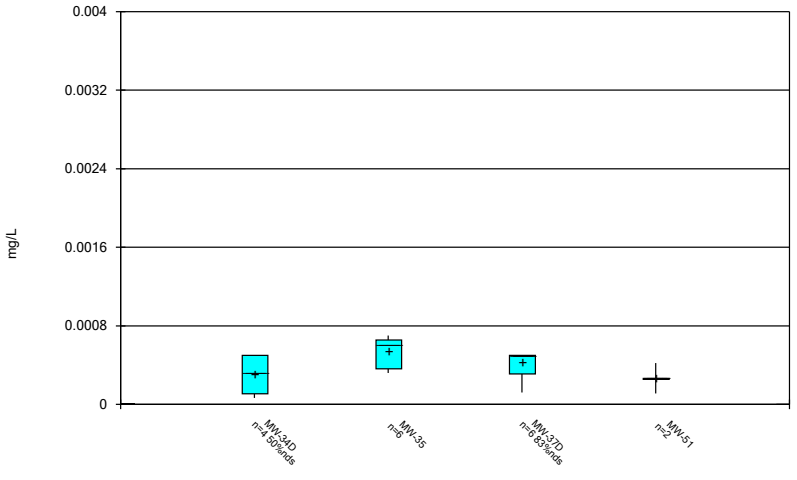


Constituent: Beryllium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

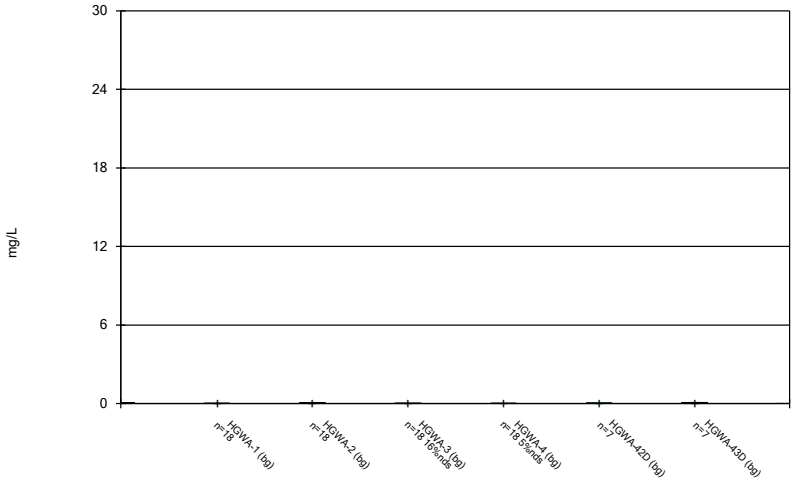
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

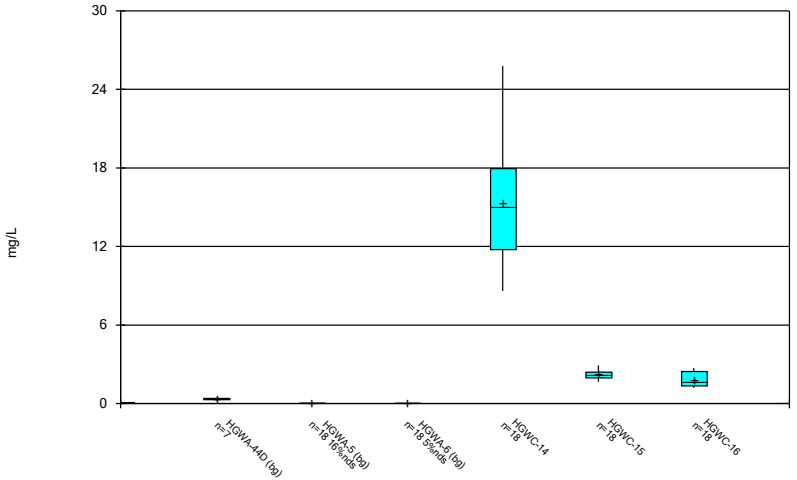


Constituent: Boron Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

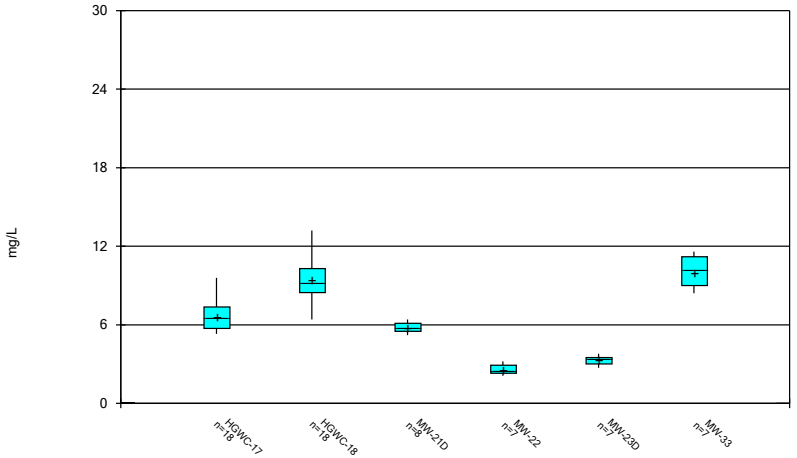


Constituent: Boron Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

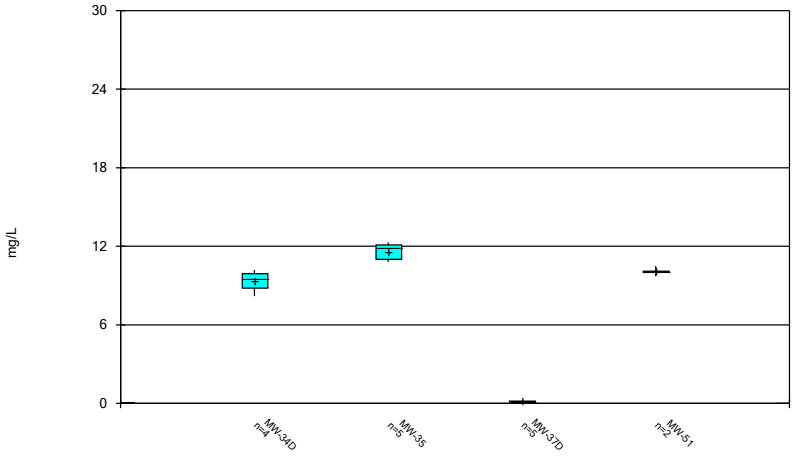


Constituent: Boron Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

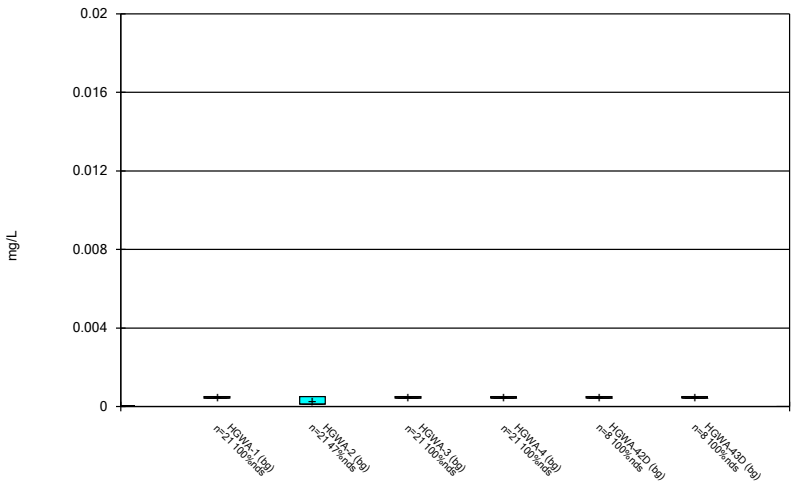
Box & Whiskers Plot



Constituent: Boron Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

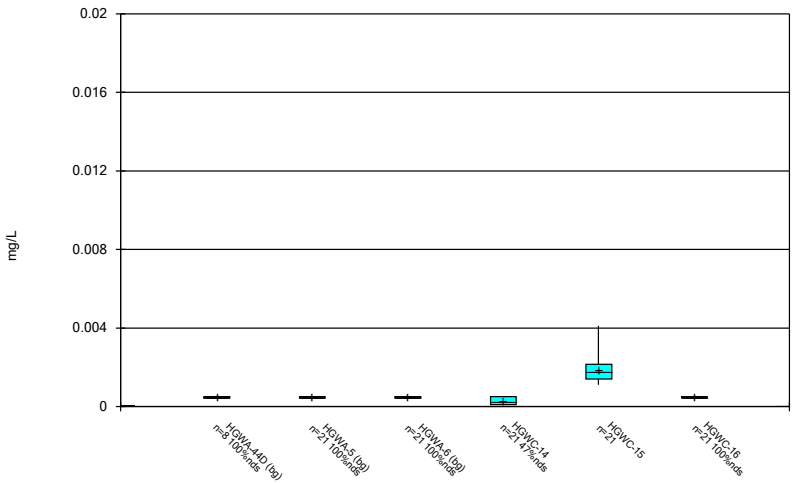
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

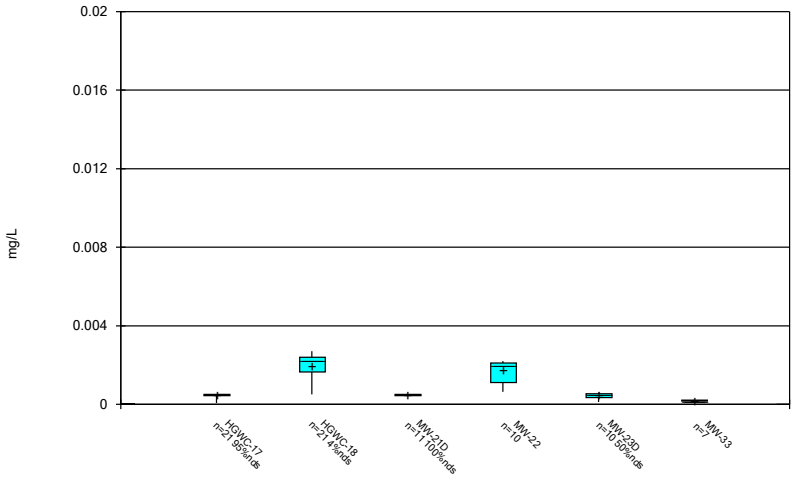
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

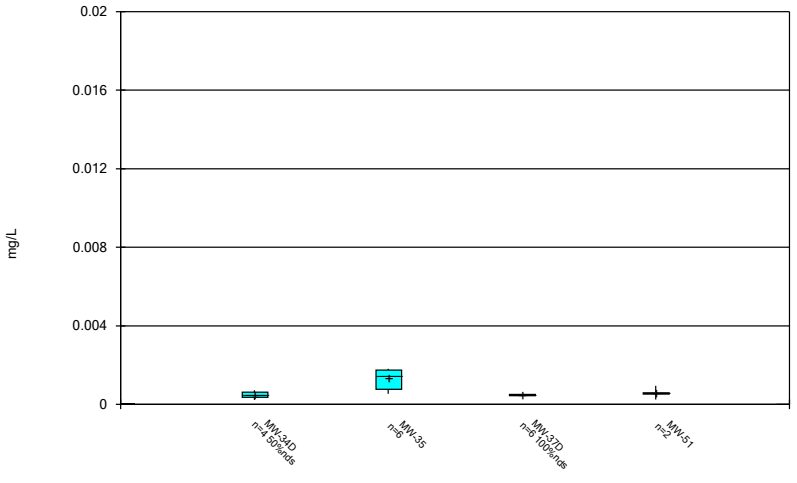
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

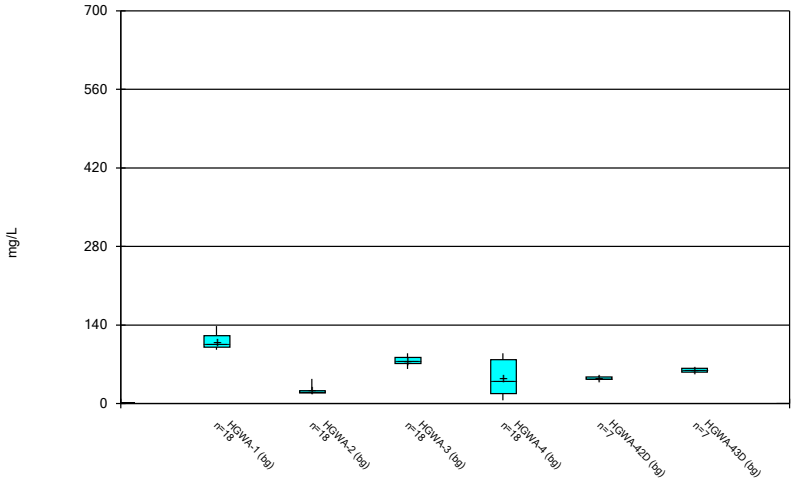
Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cadmium Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

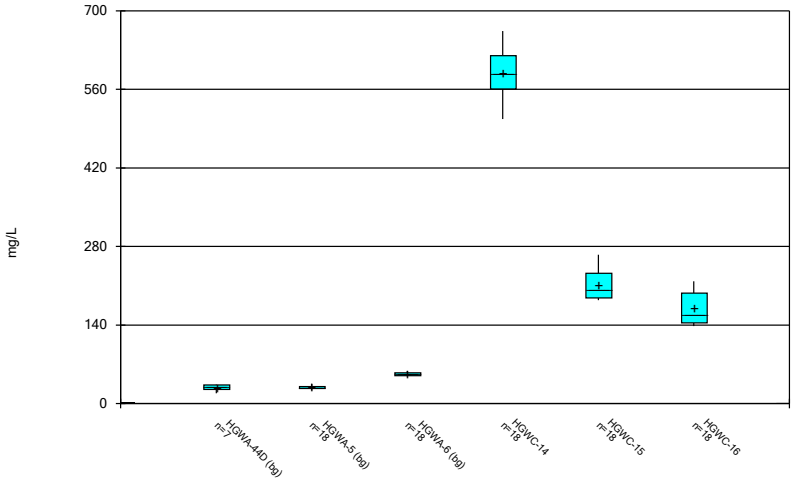


Constituent: Calcium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

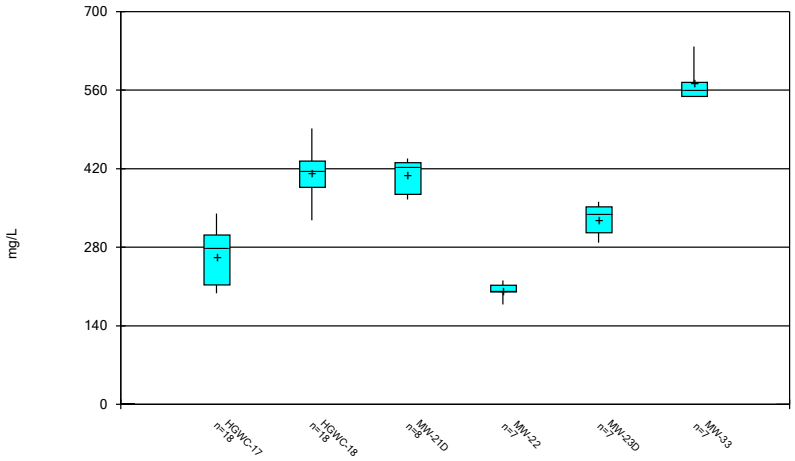


Constituent: Calcium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

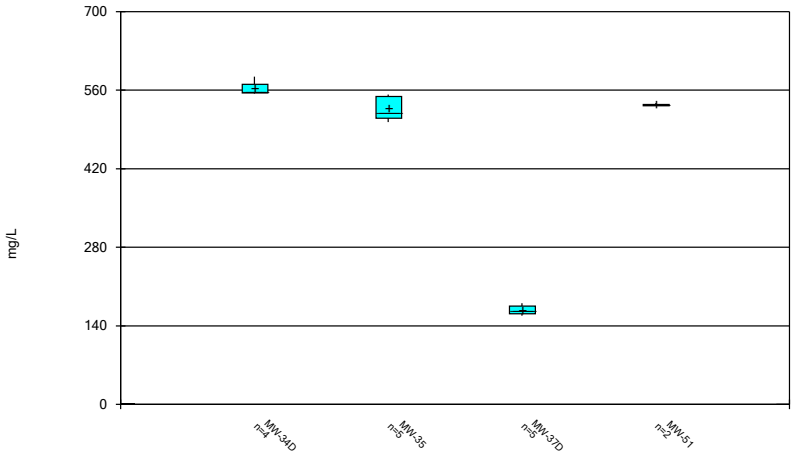


Constituent: Calcium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

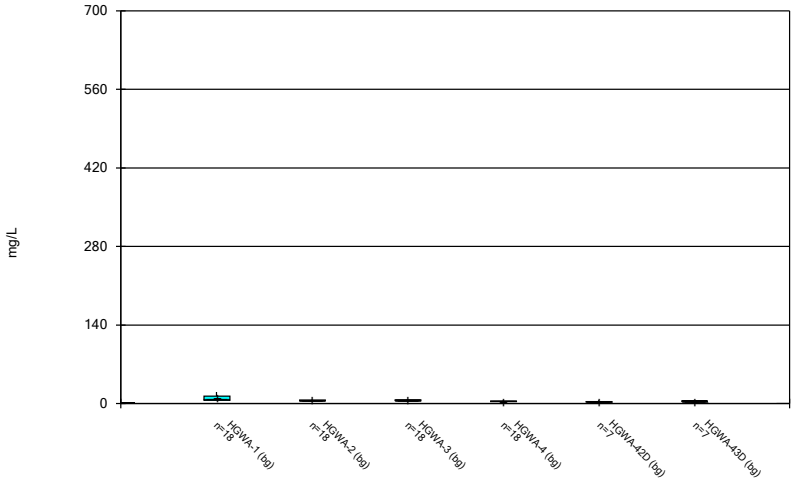
Box & Whiskers Plot



Constituent: Calcium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

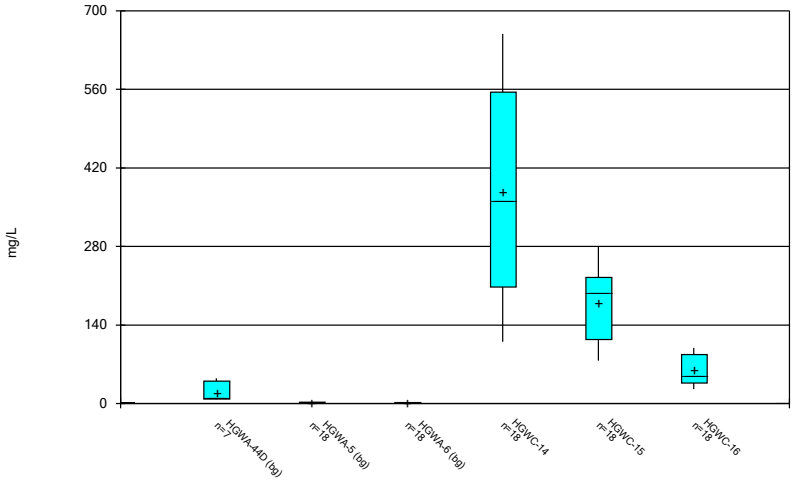
Box & Whiskers Plot



Constituent: Chloride Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

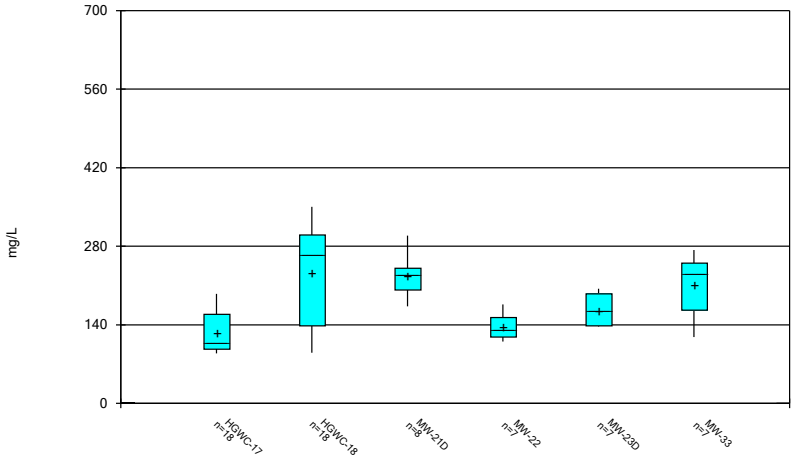
Box & Whiskers Plot



Constituent: Chloride Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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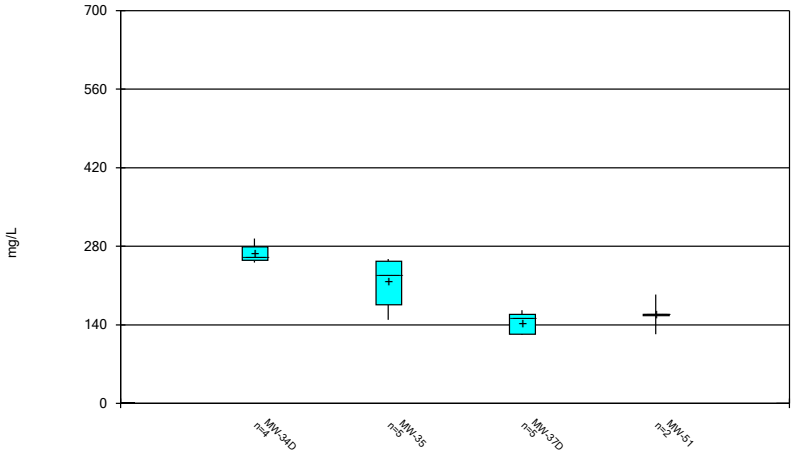
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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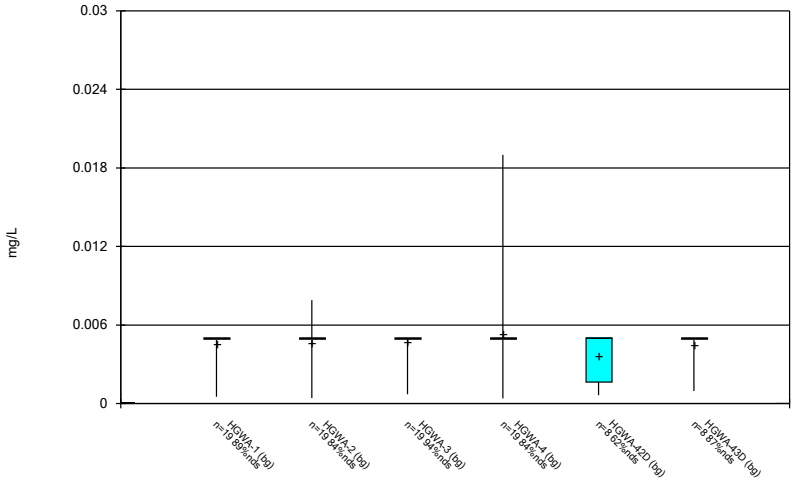
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

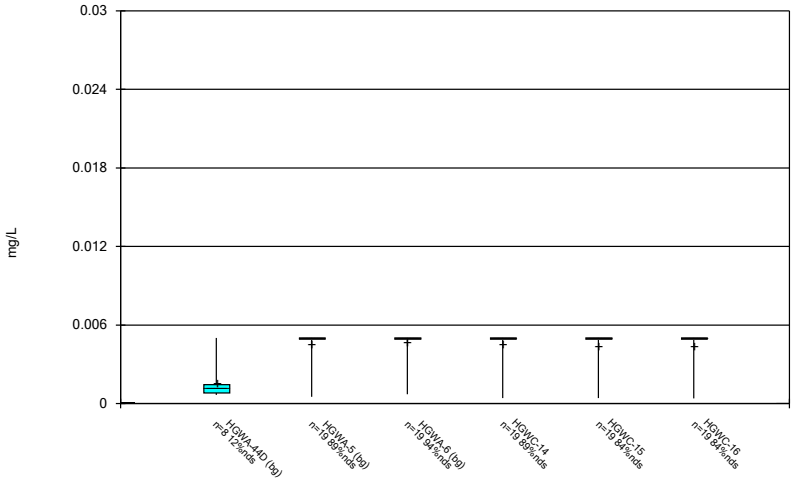


Constituent: Chromium Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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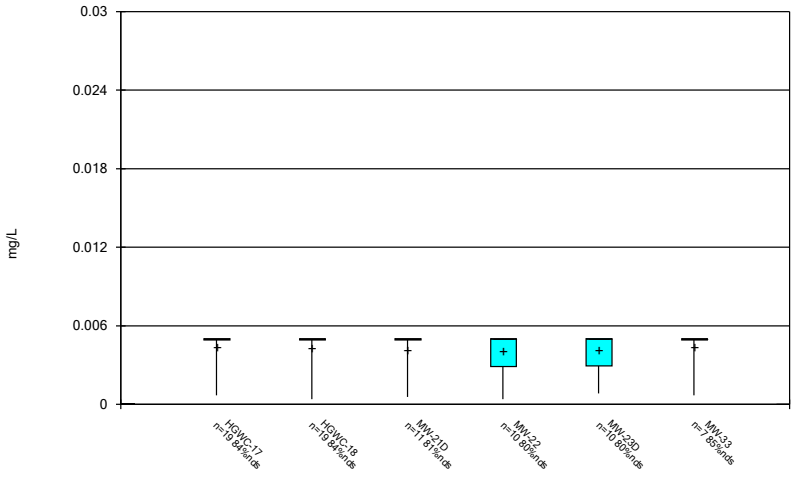
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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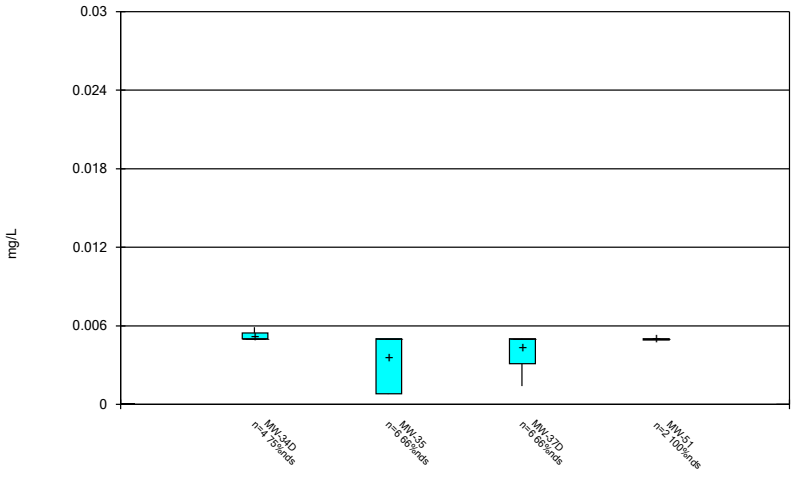
Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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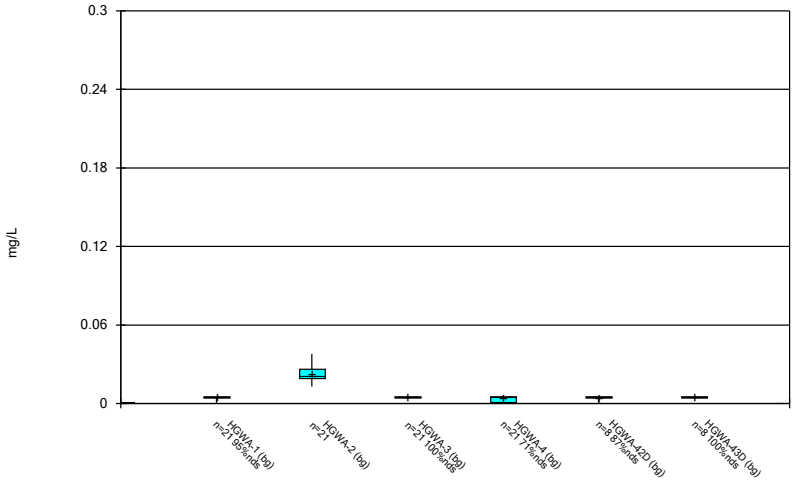
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

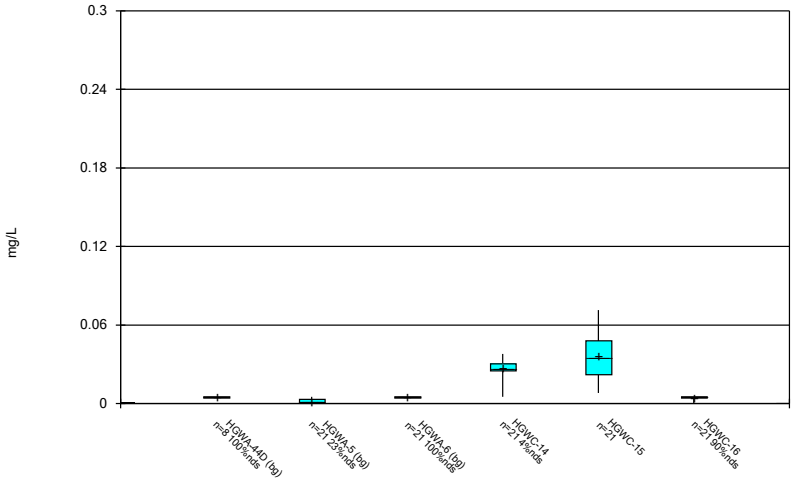


Constituent: Cobalt Analysis Run 4/26/2022 4:30 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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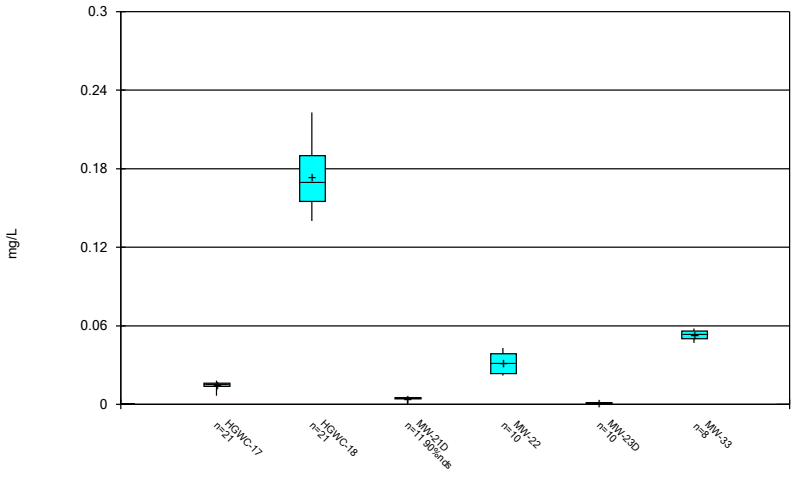
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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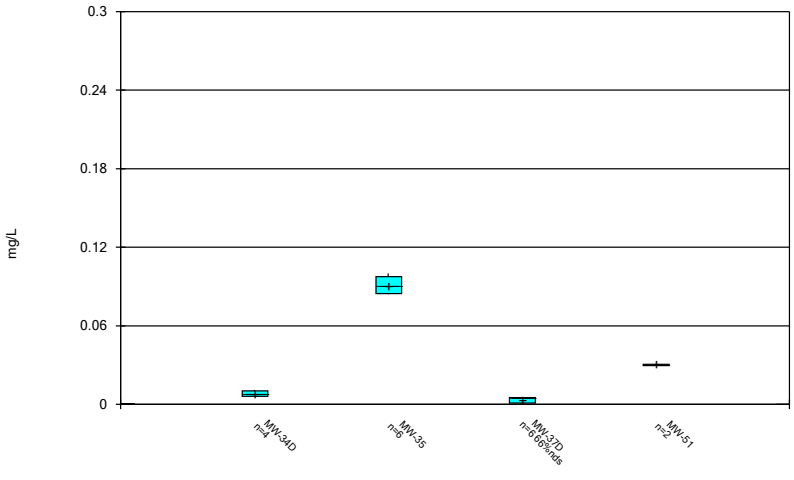
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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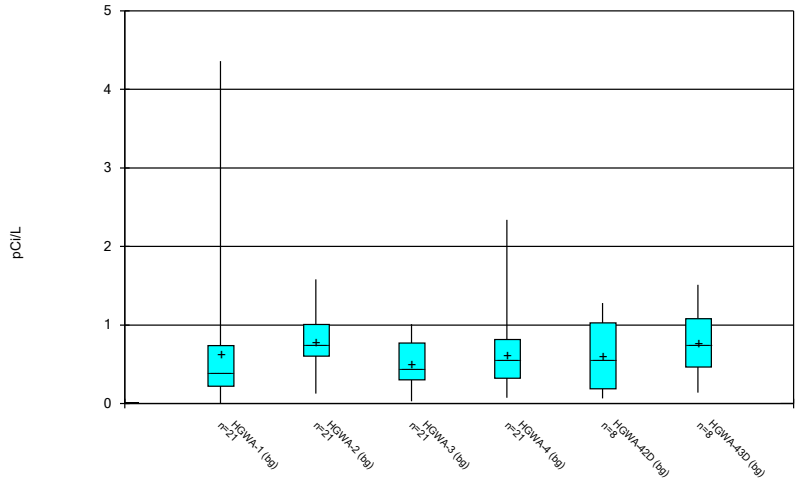
Plant Hammond Client: Southern Company Data: Hammond AP-2

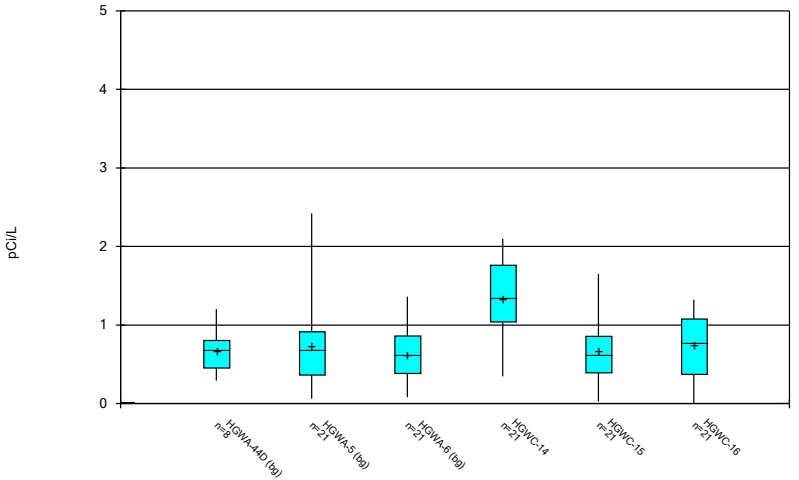
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

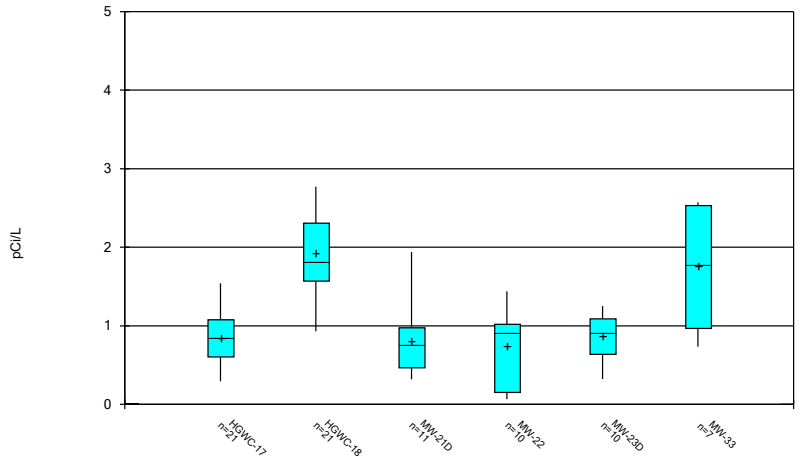
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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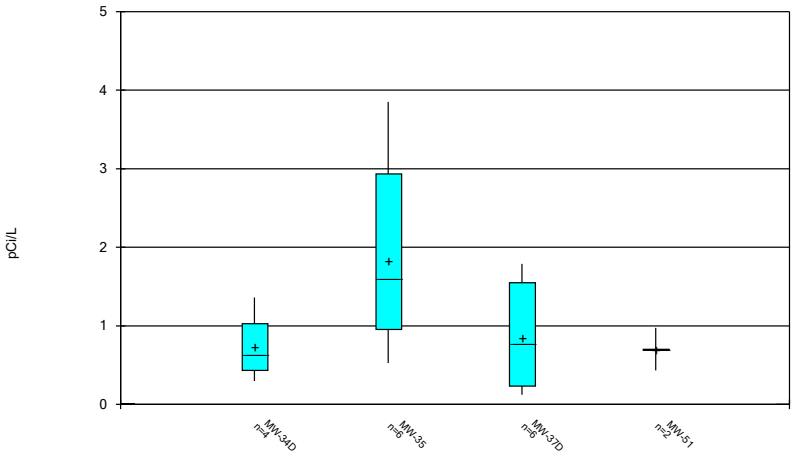
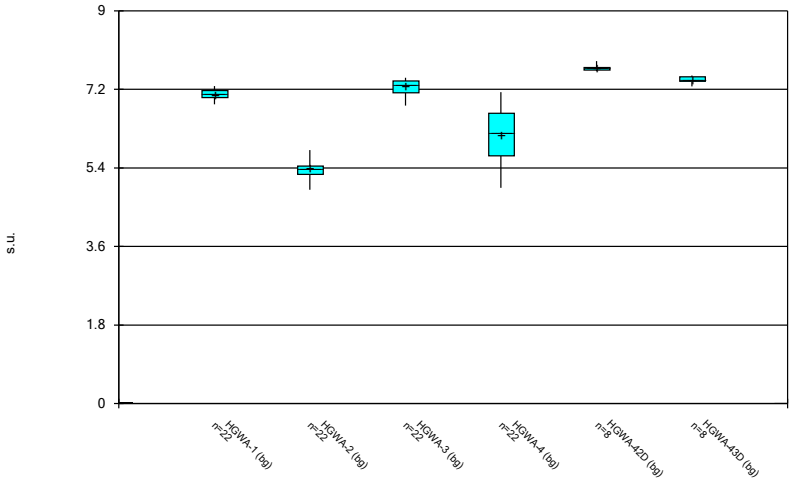
Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

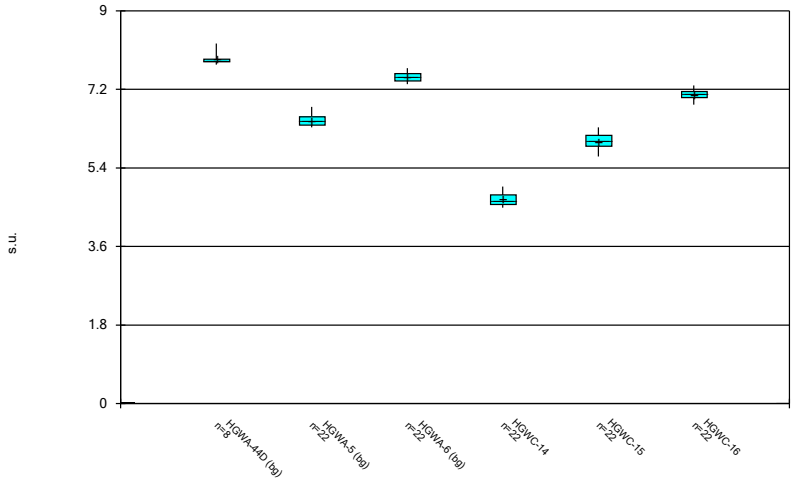
Box & Whiskers Plot



Constituent: Field pH Analysis Run 4/26/2022 4:30 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

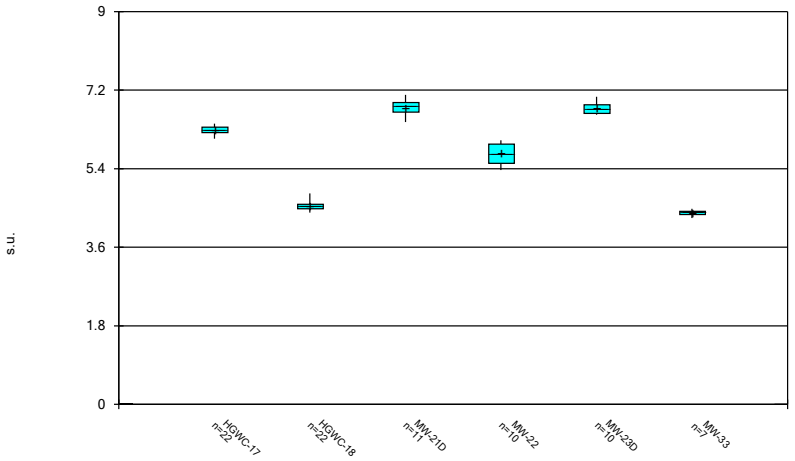
Box & Whiskers Plot



Constituent: Field pH Analysis Run 4/26/2022 4:31 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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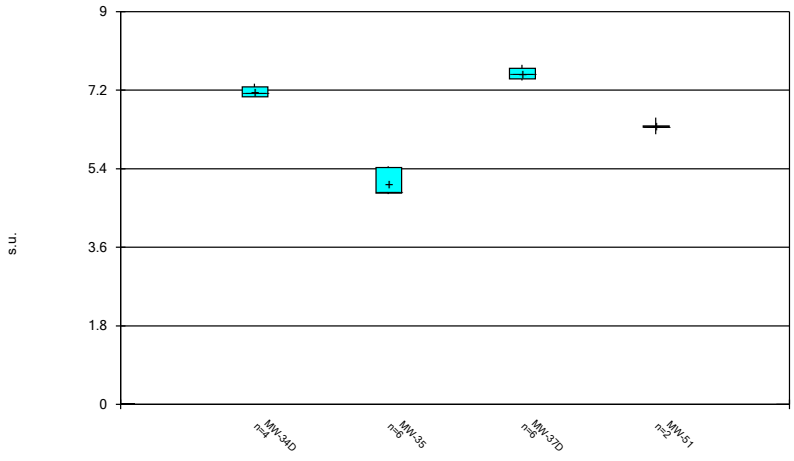
Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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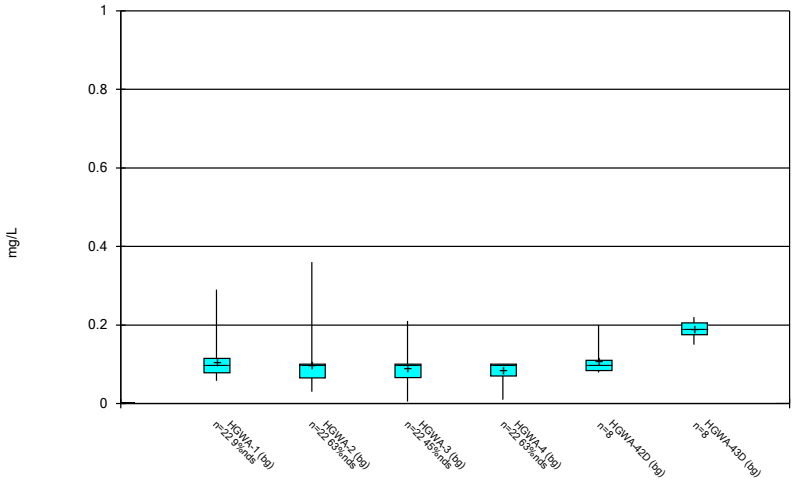
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

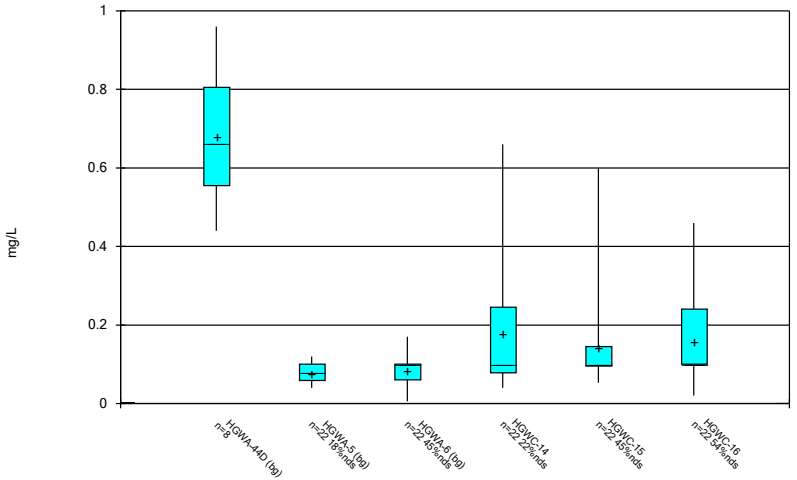


Constituent: Fluoride Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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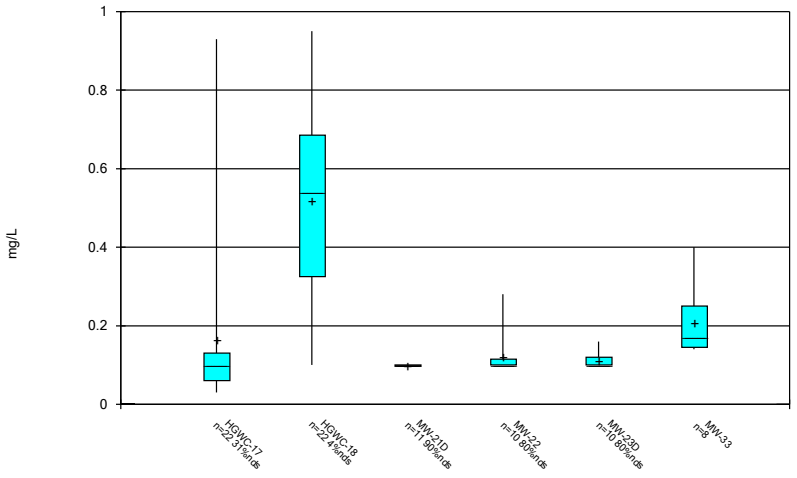
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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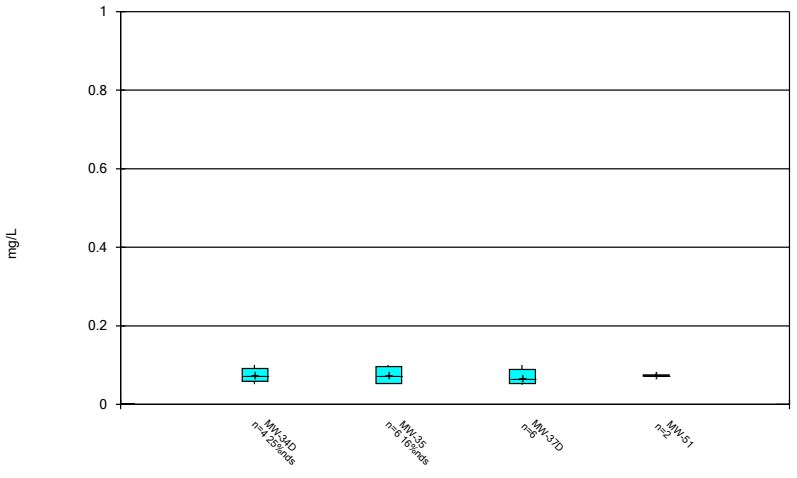
Box & Whiskers Plot



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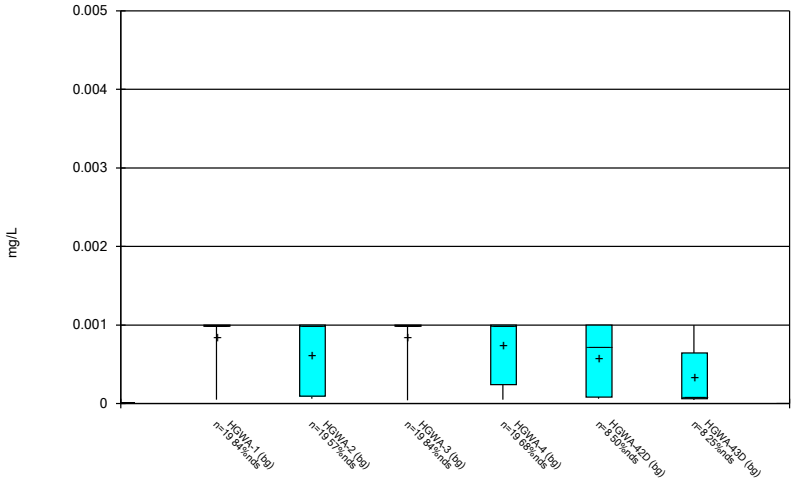
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

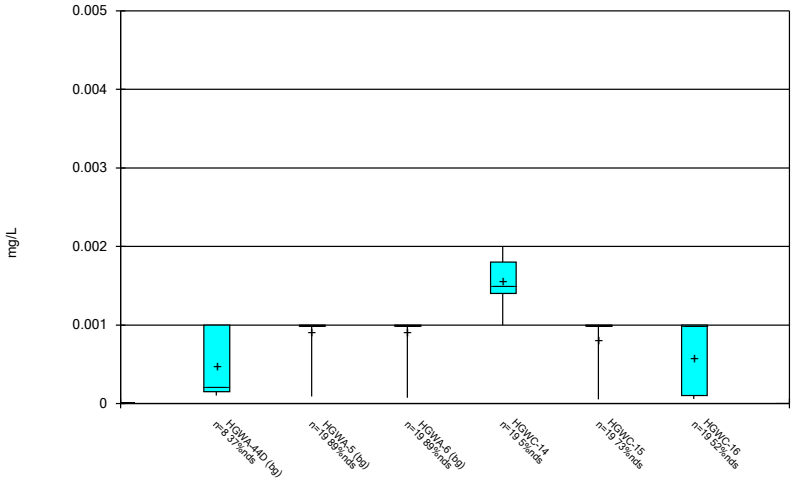


Constituent: Lead Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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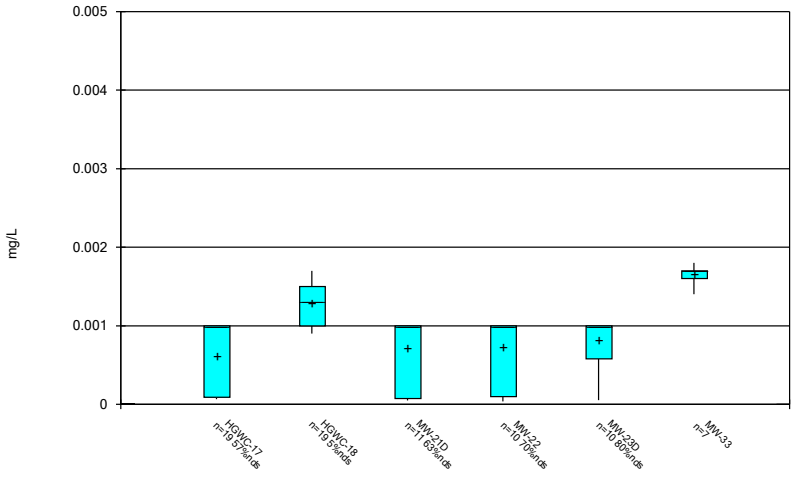
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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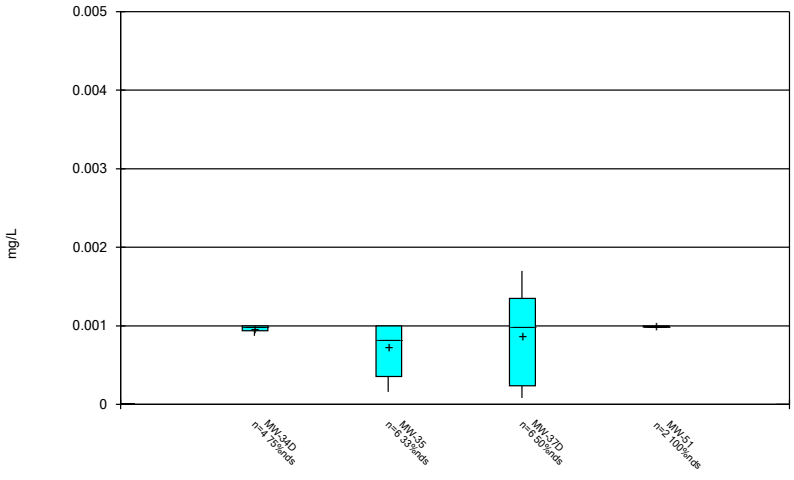
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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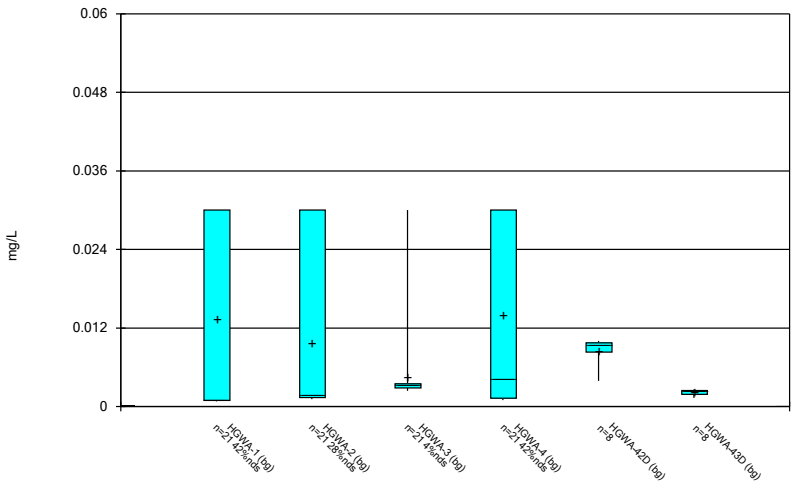
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

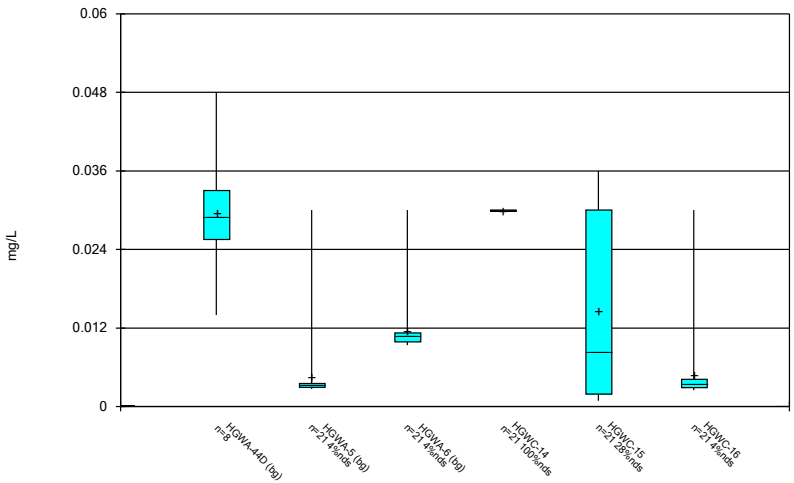


Constituent: Lithium Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

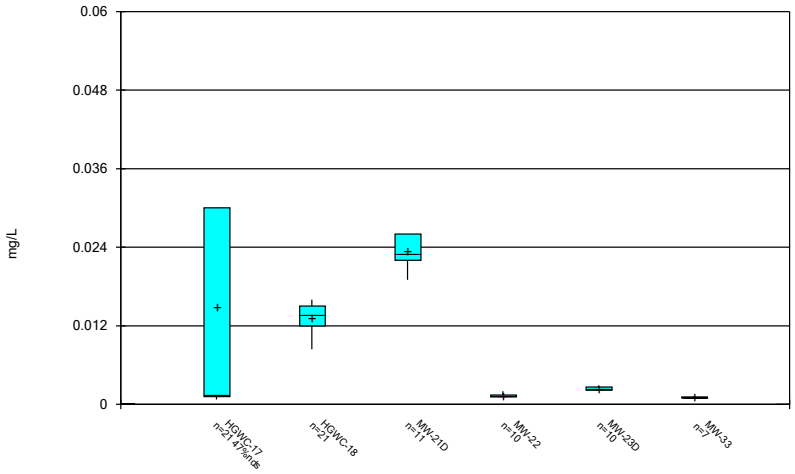


Constituent: Lithium Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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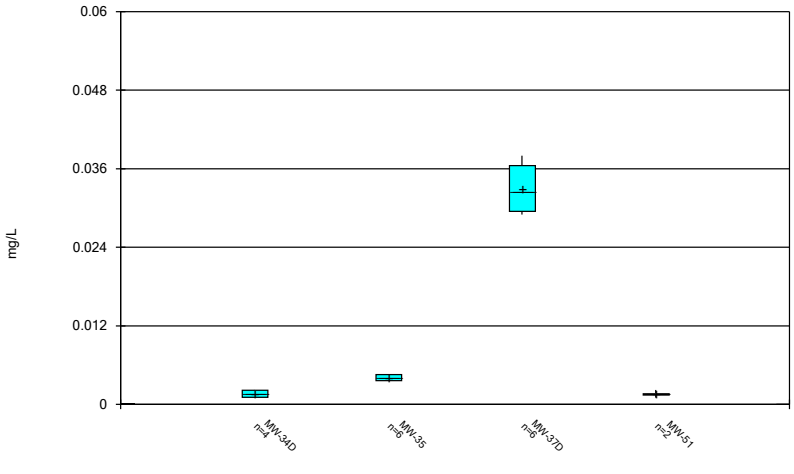
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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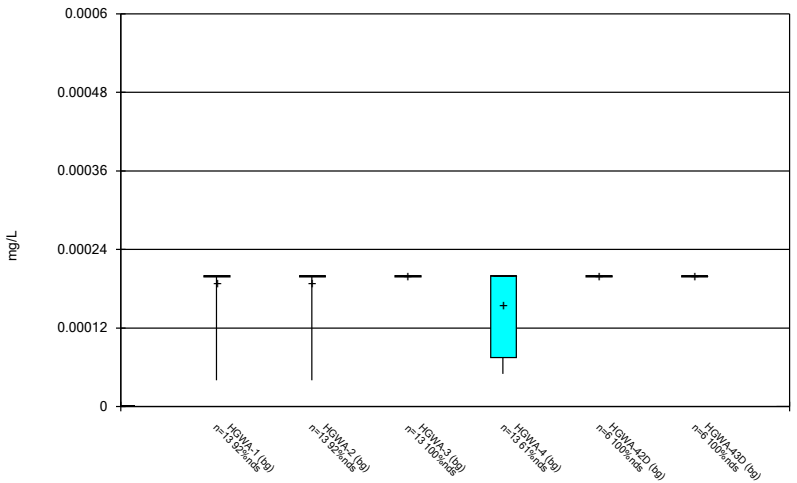
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

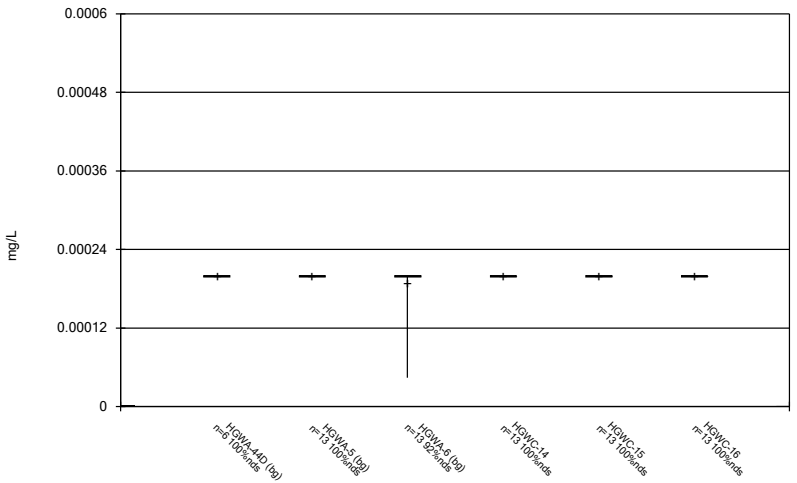


Constituent: Mercury Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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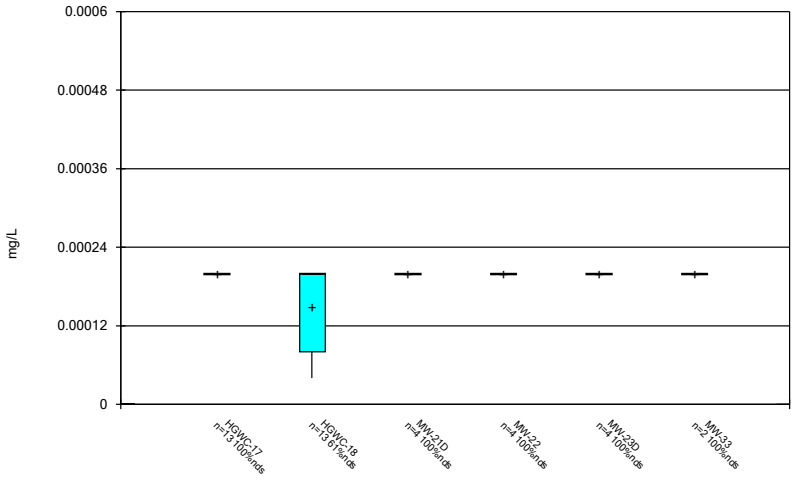
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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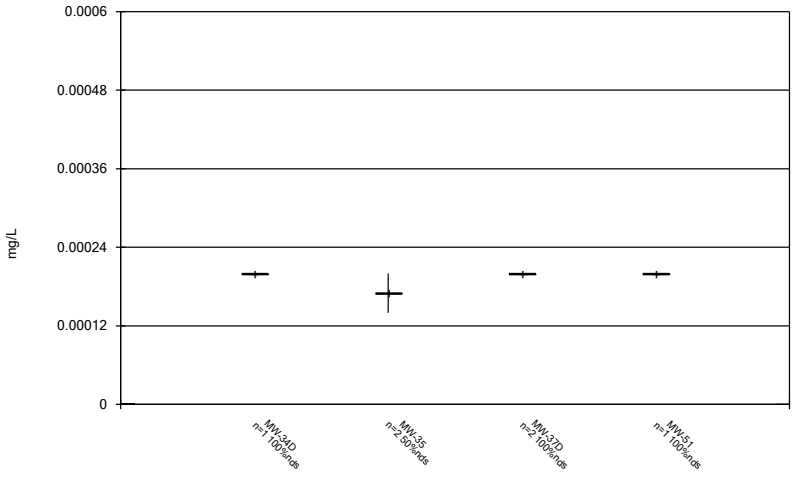
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

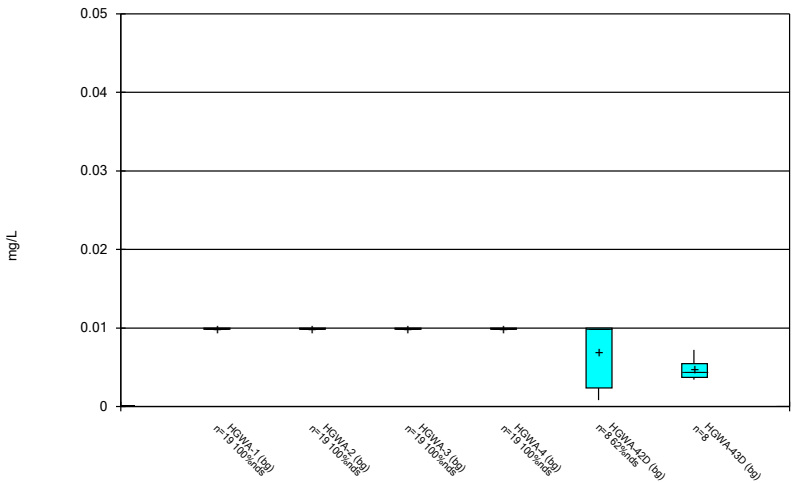
Box & Whiskers Plot



Constituent: Mercury Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

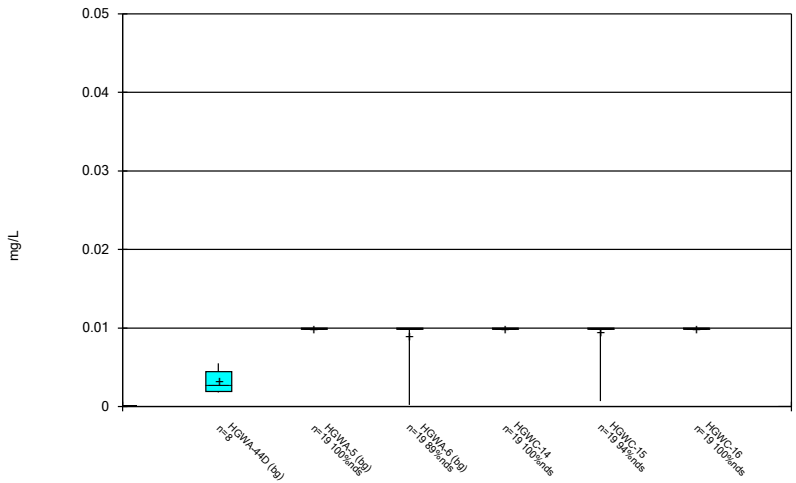


Constituent: Molybdenum Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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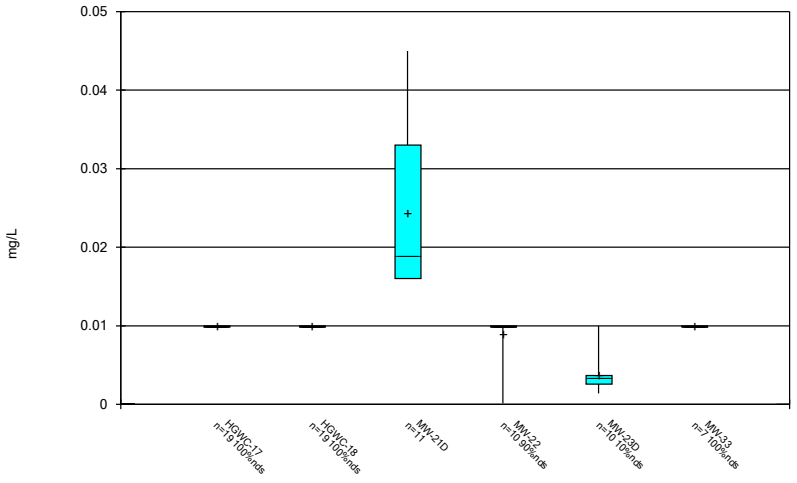
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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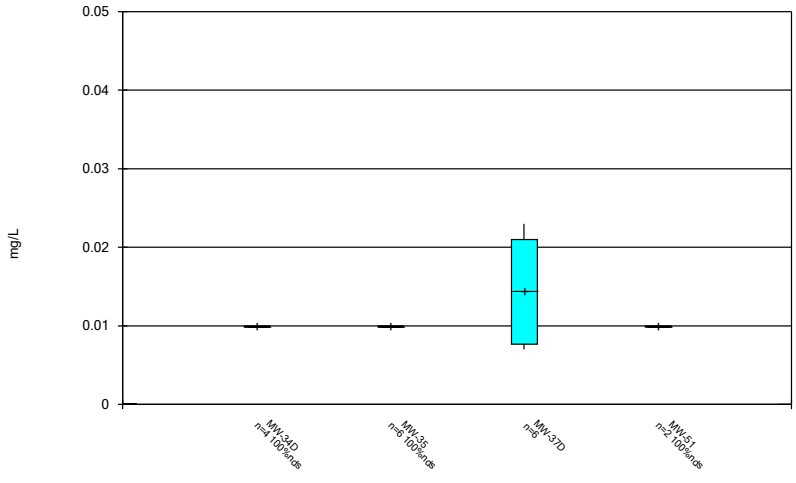
Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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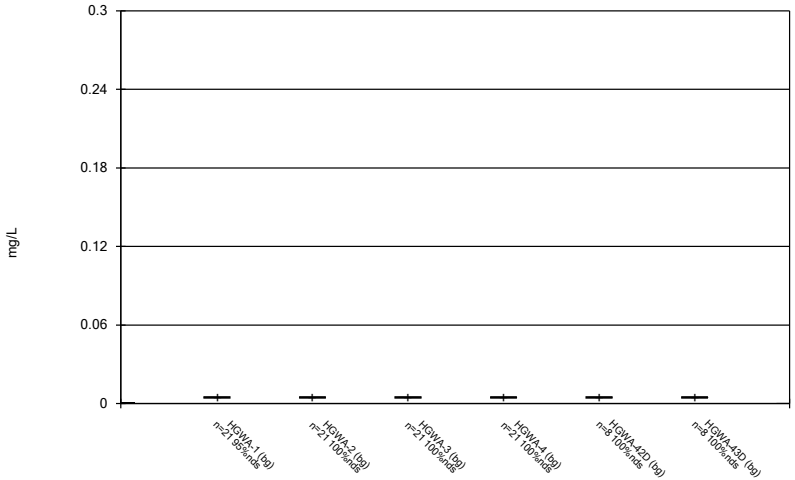
Plant Hammond Client: Southern Company Data: Hammond AP-2

Box & Whiskers Plot

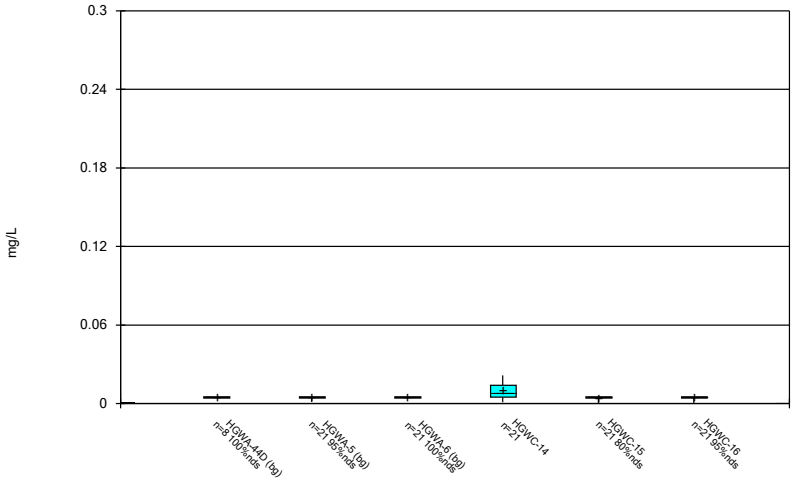


Constituent: Selenium Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

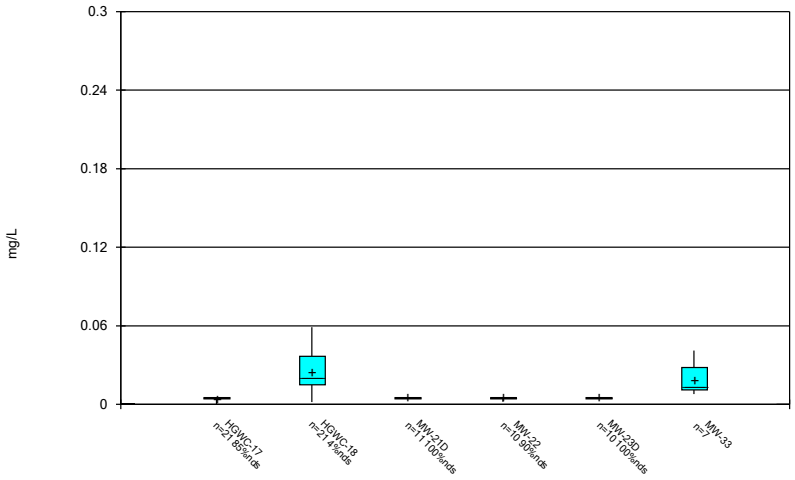


Constituent: Selenium Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot

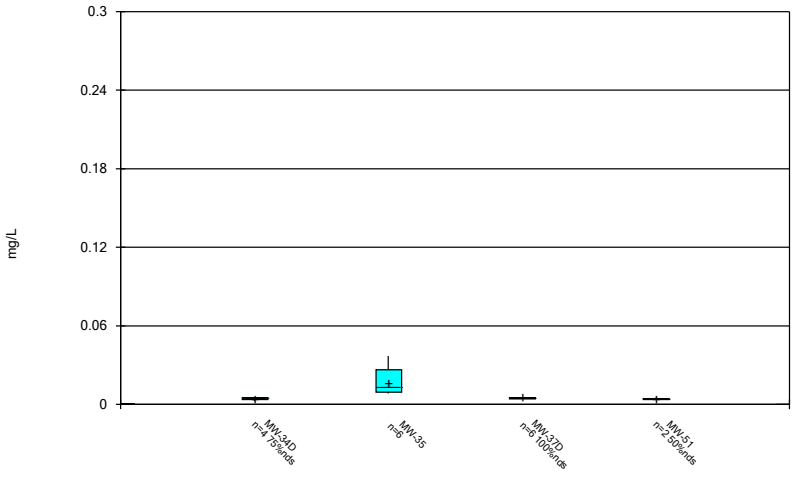


Constituent: Selenium Analysis Run 4/26/2022 4:31 PM

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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Plant Hammond Client: Southern Company Data: Hammond AP-2

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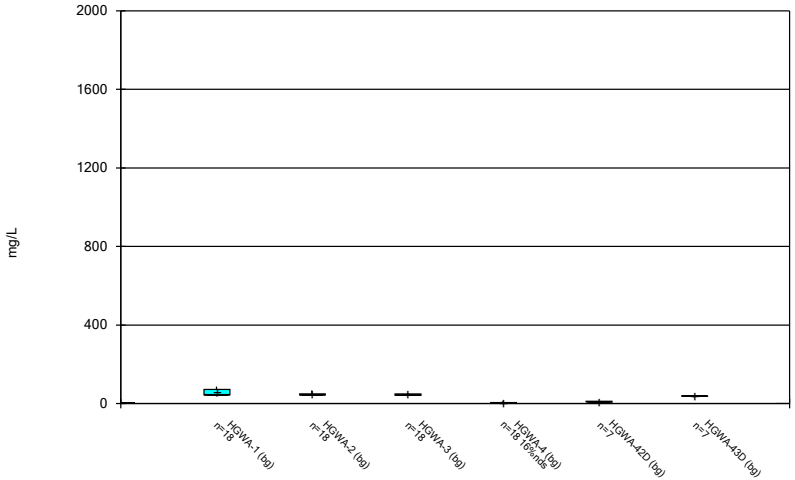

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Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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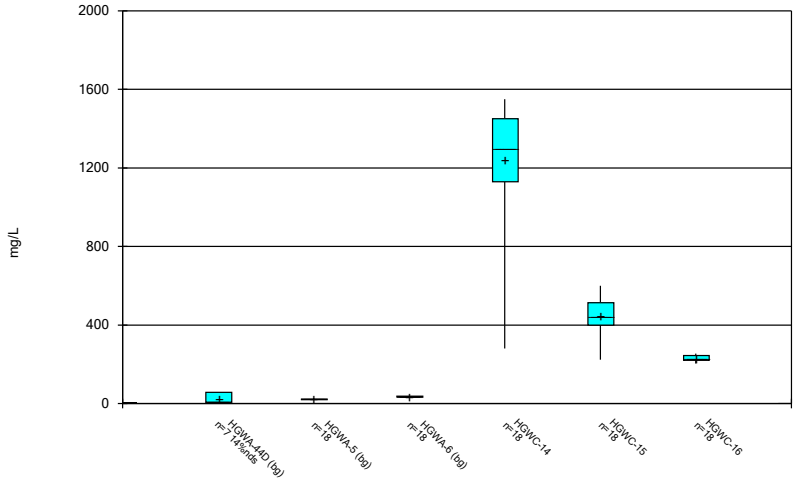

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Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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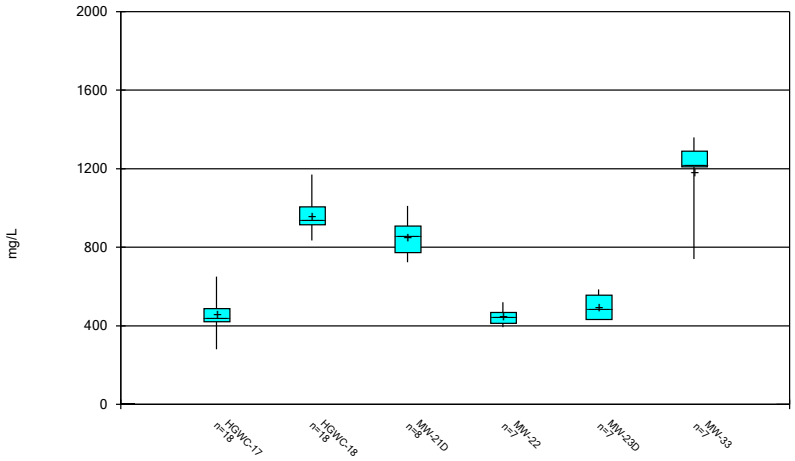

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Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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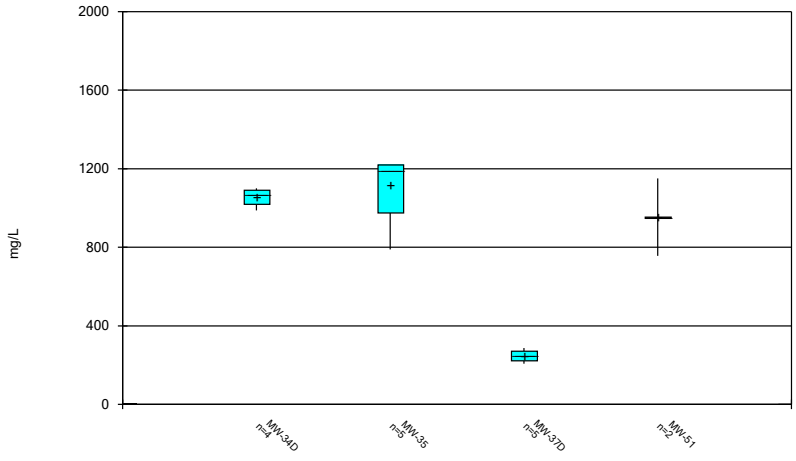

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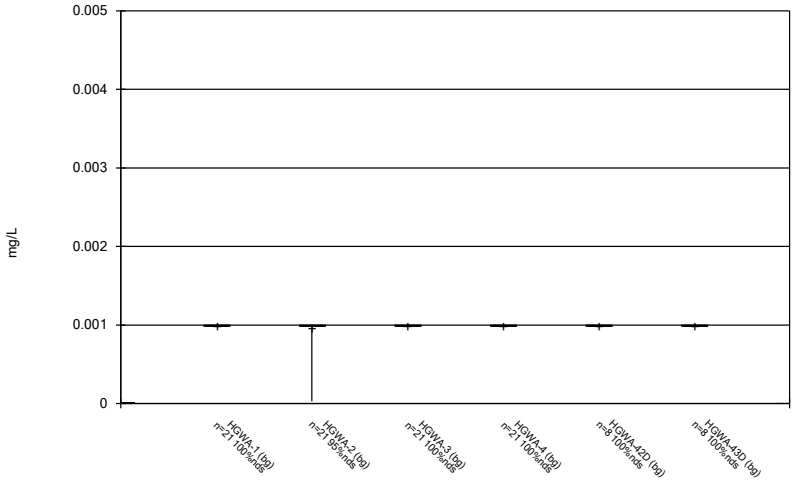

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Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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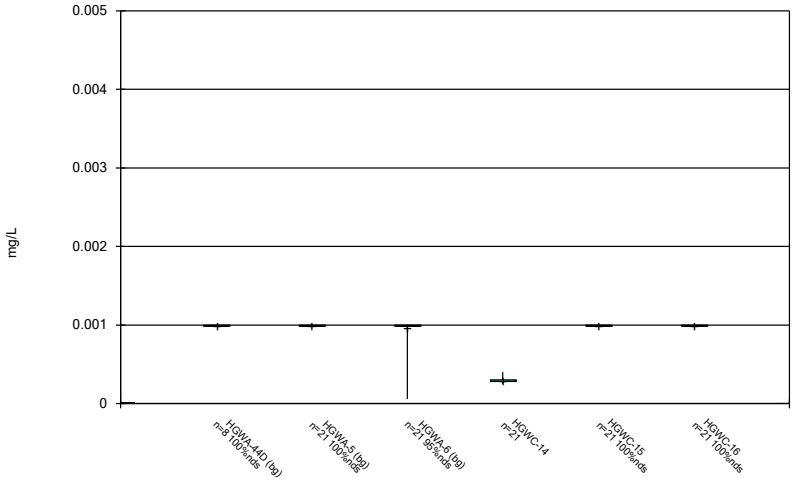

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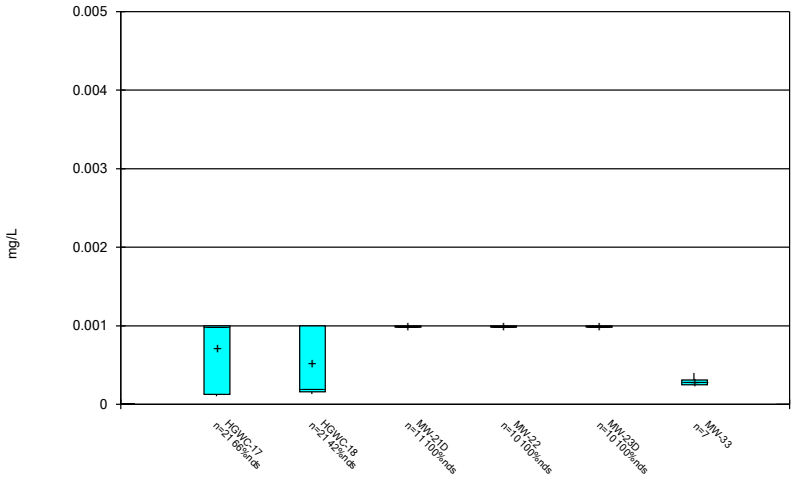
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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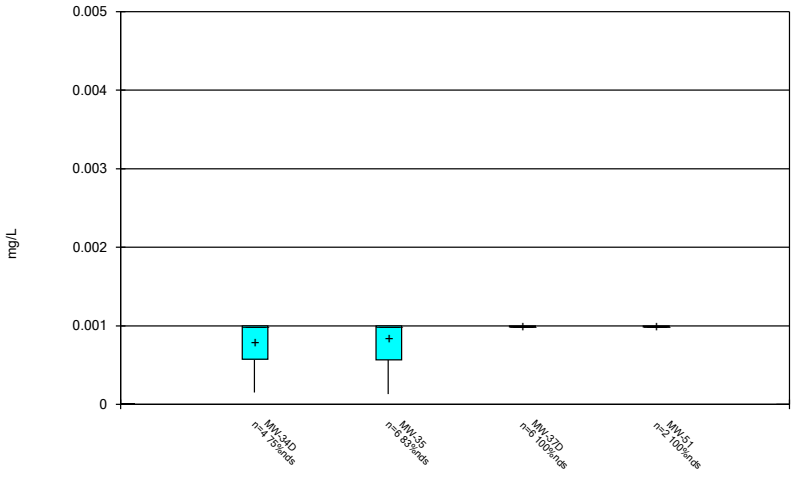
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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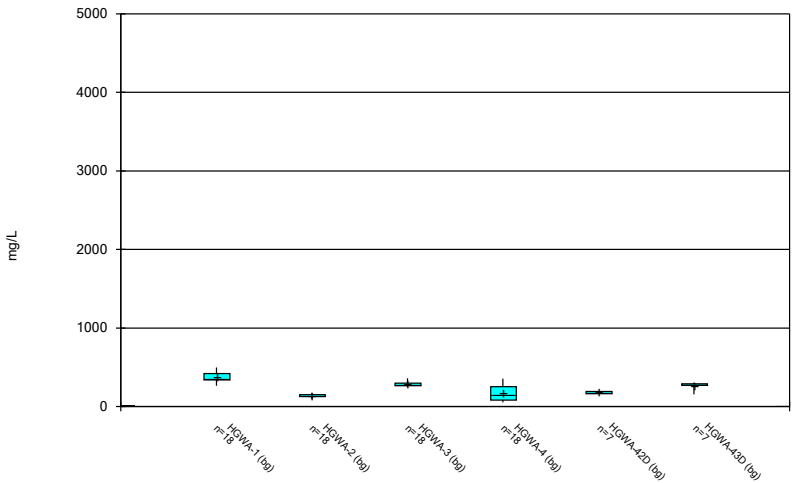
Plant Hammond Client: Southern Company Data: Hammond AP-2

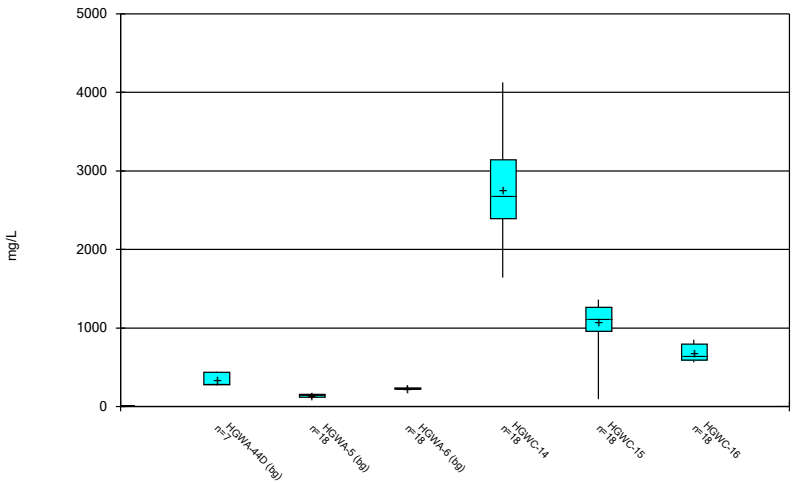
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 4/26/2022 4:31 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

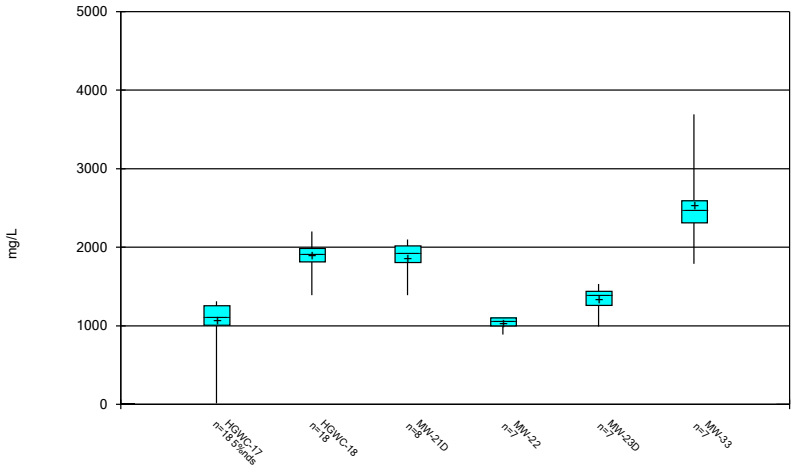
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 4/26/2022 4:31 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Box & Whiskers Plot



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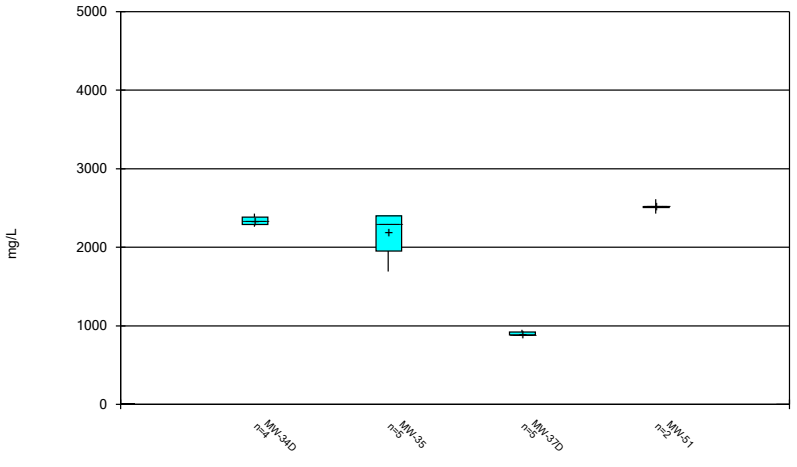
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 4/26/2022 4:31 PM
Plant Hammond Client: Southern Company Data: Hammond AP-2

FIGURE C.

Outlier Summary

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:32 PM

No outliers were flagged.

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	HGWC-14	0.44	n/a	2/9/2022	9.9	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-15	0.44	n/a	2/8/2022	1.9	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-16	0.44	n/a	2/8/2022	2.6	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-17	0.44	n/a	2/8/2022	7.8	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-18	0.44	n/a	2/8/2022	8.1	Yes	129	n/a	n/a	6.202	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-14	143.5	n/a	2/9/2022	571	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-15	143.5	n/a	2/8/2022	186	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-16	143.5	n/a	2/8/2022	218	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-17	143.5	n/a	2/8/2022	280	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-18	143.5	n/a	2/8/2022	418	Yes	129	3.802	0.6492	0	None	ln(x)	0.001504	Param Inter 1 of 2
Chloride (mg/L)	HGWC-14	44.8	n/a	2/9/2022	174	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-15	44.8	n/a	2/8/2022	76.6	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-16	44.8	n/a	2/8/2022	96.4	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-17	44.8	n/a	2/8/2022	117	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-18	44.8	n/a	2/8/2022	105	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-18	8.25	4.9	2/8/2022	4.59	Yes	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-14	85.9	n/a	2/9/2022	1190	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-15	85.9	n/a	2/8/2022	360	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-16	85.9	n/a	2/8/2022	238	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-17	85.9	n/a	2/8/2022	364	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-18	85.9	n/a	2/8/2022	960	Yes	129	n/a	n/a	3.101	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-14	496	n/a	2/9/2022	2310	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-15	496	n/a	2/8/2022	866	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-16	496	n/a	2/8/2022	852	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-17	496	n/a	2/8/2022	1160	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-18	496	n/a	2/8/2022	1770	Yes	129	n/a	n/a	0	n/a	n/a	0.0001191	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

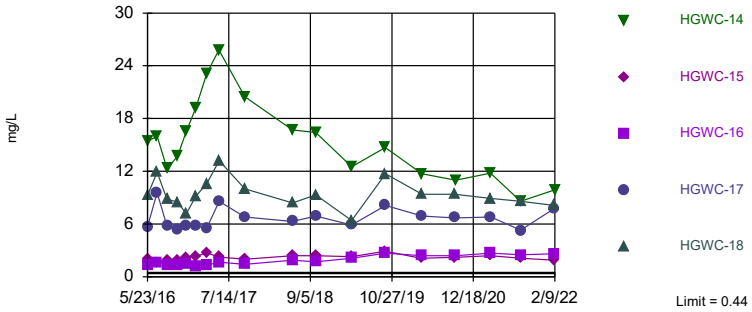
Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-14**	**0.44**	**n/a**	**2/9/2022**	**9.9**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-15**	**0.44**	**n/a**	**2/8/2022**	**1.9**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-16**	**0.44**	**n/a**	**2/8/2022**	**2.6**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-17**	**0.44**	**n/a**	**2/8/2022**	**7.8**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-18**	**0.44**	**n/a**	**2/8/2022**	**8.1**	**Yes**	**129**	**n/a**	**n/a**	**6.202**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-14**	**143.5**	**n/a**	**2/9/2022**	**571**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-15**	**143.5**	**n/a**	**2/8/2022**	**186**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-16**	**143.5**	**n/a**	**2/8/2022**	**218**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-17**	**143.5**	**n/a**	**2/8/2022**	**280**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**HGWC-18**	**143.5**	**n/a**	**2/8/2022**	**418**	**Yes**	**129**	**3.802**	**0.6492**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**HGWC-14**	**44.8**	**n/a**	**2/9/2022**	**174**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-15**	**44.8**	**n/a**	**2/8/2022**	**76.6**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-16**	**44.8**	**n/a**	**2/8/2022**	**96.4**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-17**	**44.8**	**n/a**	**2/8/2022**	**117**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**HGWC-18**	**44.8**	**n/a**	**2/8/2022**	**105**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Field pH (s.u.)	HGWC-14	8.25	4.9	2/9/2022	4.97	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-15	8.25	4.9	2/8/2022	6.04	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-16	8.25	4.9	2/8/2022	7.18	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	HGWC-17	8.25	4.9	2/8/2022	6.42	No	156	n/a	n/a	0	n/a	n/a	0.0001624	NP Inter (normality) 1 of 2
Field pH (s.u.)	**HGWC-18**	**8.25**	**4.9**	**2/8/2022**	**4.59**	**Yes**	**156**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001624**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	HGWC-14	0.96	n/a	2/9/2022	0.053J	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-15	0.96	n/a	2/8/2022	0.1ND	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-16	0.96	n/a	2/8/2022	0.1ND	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-17	0.96	n/a	2/8/2022	0.055J	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-18	0.96	n/a	2/8/2022	0.19	No	156	n/a	n/a	34.62	n/a	n/a	0.00008118	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-14**	**85.9**	**n/a**	**2/9/2022**	**1190**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-15**	**85.9**	**n/a**	**2/8/2022**	**360**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-16**	**85.9**	**n/a**	**2/8/2022**	**238**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-17**	**85.9**	**n/a**	**2/8/2022**	**364**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-18**	**85.9**	**n/a**	**2/8/2022**	**960**	**Yes**	**129**	**n/a**	**n/a**	**3.101**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-14**	**496**	**n/a**	**2/9/2022**	**2310**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-15**	**496**	**n/a**	**2/8/2022**	**866**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-16**	**496**	**n/a**	**2/8/2022**	**852**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-17**	**496**	**n/a**	**2/8/2022**	**1160**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-18**	**496**	**n/a**	**2/8/2022**	**1770**	**Yes**	**129**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001191**	**NP Inter (normality) 1 of 2**

Exceeds Limit: HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18

Prediction Limit

Interwell Non-parametric



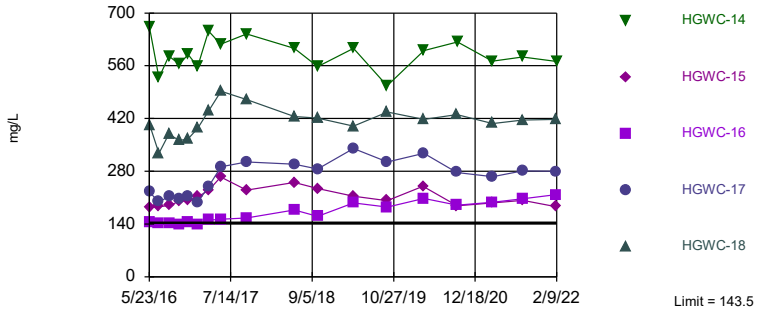
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 129 background values. 6.202% NDs. Annual per-constituent alpha = 0.001191. Individual comparison alpha = 0.0001191 (1 of 2). Comparing 5 points to limit.

Constituent: Boron Analysis Run 4/27/2022 6:04 PM View: Appendix III
Plant Hammond Client: Southern Company Data: Hammond AP-2

Exceeds Limit: HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18

Prediction Limit

Interwell Parametric



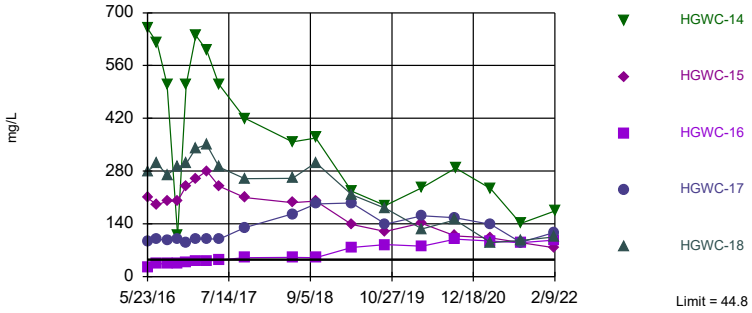
Background Data Summary (based on natural log transformation): Mean=3.802, Std. Dev.=0.6492, n=129. Normality test: Chi Squared @alpha = 0.01, calculated = 9.217, critical = 14.07. Kappa = 1.793 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 5 points to limit.

Constituent: Calcium Analysis Run 4/27/2022 6:04 PM View: Appendix III
Plant Hammond Client: Southern Company Data: Hammond AP-2

Exceeds Limit: HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18

Prediction Limit

Interwell Non-parametric



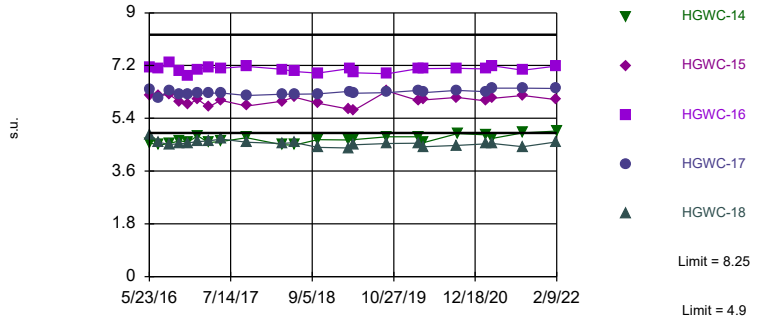
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 129 background values. Annual per-constituent alpha = 0.001191. Individual comparison alpha = 0.0001191 (1 of 2). Comparing 5 points to limit.

Constituent: Chloride Analysis Run 4/27/2022 6:04 PM View: Appendix III
Plant Hammond Client: Southern Company Data: Hammond AP-2

Exceeds Limits: HGWC-18

Prediction Limit

Interwell Non-parametric



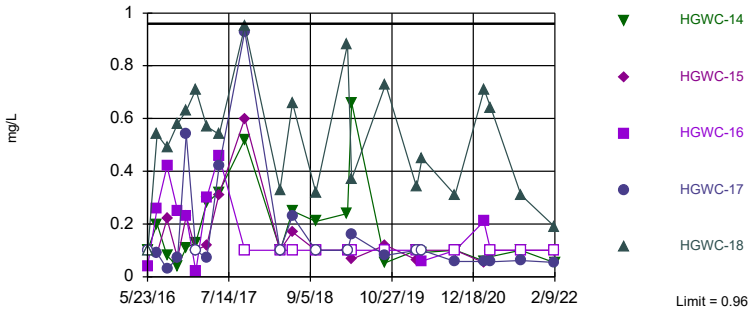
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 156 background values. Annual per-constituent alpha = 0.001623. Individual comparison alpha = 0.0001624 (1 of 2). Comparing 5 points to limit.

Constituent: Field pH Analysis Run 4/27/2022 6:04 PM View: Appendix III
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
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 156 background values. 34.62% NDs. Annual per-constituent alpha = 0.0008115. Individual comparison alpha = 0.00008118 (1 of 2). Comparing 5 points to limit.

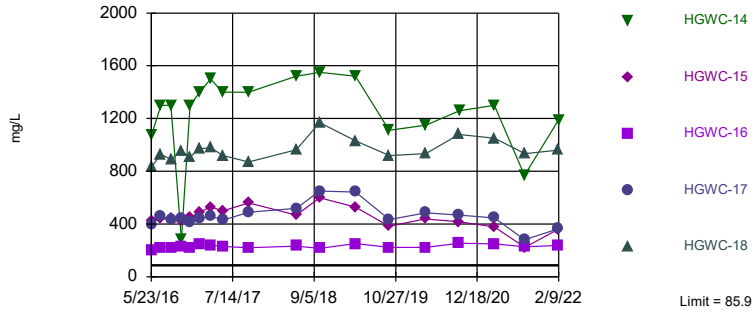
Constituent: Fluoride Analysis Run 4/27/2022 6:04 PM View: Appendix III
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Exceeds Limit: HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18

Prediction Limit

Interwell Non-parametric



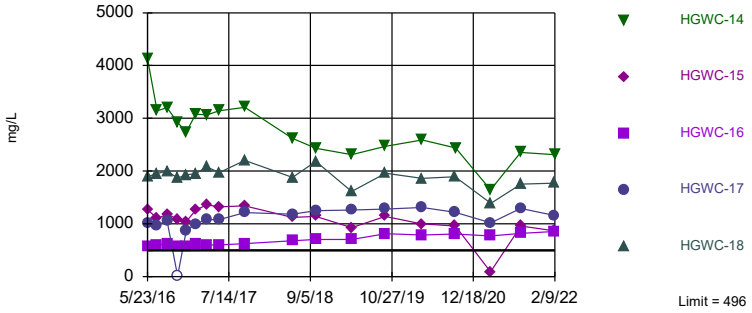
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 129 background values. 3.101% NDs. Annual per-constituent alpha = 0.001191. Individual comparison alpha = 0.0001191 (1 of 2). Comparing 5 points to limit.

Constituent: Sulfate Analysis Run 4/27/2022 6:04 PM View: Appendix III
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit: HGWC-14, HGWC-15, HGWC-16, HGWC-17, HGWC-18

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 129 background values. Annual per-constituent alpha = 0.001191. Individual comparison alpha = 0.0001191 (1 of 2). Comparing 5 points to limit.

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:04 PM View: Appendix III
Plant Hammond Client: Southern Company Data: Hammond AP-2

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
5/19/2016	0.0214 (J)	<0.04	<0.04	<0.04	0.0321 (J)				
5/20/2016						0.0363 (J)			
5/23/2016							5.7	1.36	2.02
5/24/2016									
7/11/2016	0.0142 (J)	0.0175 (J)	0.0052 (J)		0.0337 (J)	0.0179 (J)			
7/12/2016				0.0074 (J)			9.58	1.62	1.65
8/30/2016	0.0074 (J)	0.0072 (J)	0.0068 (J)	<0.04	0.0173 (J)	0.014 (J)			
9/1/2016							5.76	1.31	1.93
10/19/2016	0.0224 (J)	0.018 (J)		0.0085 (J)	0.0341 (J)				
10/20/2016			0.0135 (J)			0.0197 (J)			
10/24/2016									1.93
10/25/2016							5.38	1.27	
12/6/2016	0.0211 (J)	0.0158 (J)		0.0085 (J)	0.0326 (J)				
12/7/2016							5.74	1.42	2.23
12/8/2016			0.0083 (J)			0.0159 (J)			
1/24/2017	0.0165 (J)	0.0145 (J)	0.0072 (J)	0.01 (J)	0.0365 (J)	<0.04			
1/26/2017							5.78	1.19	2.31
3/21/2017	0.0187 (J)	0.0101 (J)	<0.04	0.0079 (J)	0.0349 (J)	0.0166 (J)			
3/22/2017							5.52	1.32	
3/23/2017									2.72
5/22/2017	0.0782			0.0131 (J)	0.0475				
5/23/2017		0.0159 (J)	0.0095 (J)			0.0167 (J)			
5/24/2017								1.67	2.26
5/25/2017							8.58		
10/3/2017	0.0198 (J)	0.0162 (J)	0.0071 (J)	0.0097 (J)	0.0386 (J)	0.017 (J)			
10/4/2017							6.8	1.43	2
6/4/2018	0.02 (J)	0.014 (J)		0.017 (J)	0.036 (J)				
6/5/2018			0.0066 (J)			0.016 (J)			
6/6/2018							6.3	1.9	2.4
10/1/2018	0.013 (J)	0.0093 (J)		0.0061 (J)	0.035 (J)				
10/2/2018			0.0081 (J)			0.014 (J)			
10/3/2018							6.9	1.7	2.4
4/1/2019				0.0066 (J)					
4/2/2019	0.016 (J)	0.01 (J)	0.0052 (J)		0.034 (J)	0.013 (J)			
4/4/2019								2.1	2.3
4/5/2019							5.9		
9/23/2019	0.021 (J)			0.0081 (J)	0.04 (J)				
9/24/2019		0.013 (J)	0.0088 (J)			0.016 (J)			2.9
9/25/2019							8.1	2.7	
3/25/2020	0.025 (J)			0.0096 (J)	0.039 (J)	0.021 (J)			
3/26/2020		0.012 (J)	0.0072 (J)						2.1
3/30/2020								2.4	
3/31/2020							6.9		
9/15/2020	0.017 (J)	0.013 (J)	0.012 (J)	0.0071 (J)	0.044 (J)	0.016 (J)			
9/16/2020							6.7		
9/17/2020								2.4	2.2
9/18/2020									
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
1/20/2021									

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
3/10/2021	0.015 (J)	0.012 (J)							
3/11/2021			0.0075 (J)	0.015 (J)	0.056	0.018 (J)			
3/16/2021									2.4
3/17/2021								2.7	
3/18/2021							6.8		
8/11/2021	0.02 (J)								
8/12/2021		0.014 (J)	0.0092 (J)	<0.04	0.044	0.014 (J)			
8/13/2021									
8/18/2021							5.3		
8/19/2021								2.5	2.1
2/1/2022	0.016 (J)			0.011 (J)	0.056				
2/7/2022		0.017 (J)	<0.04			0.019 (J)			
2/8/2022							7.8	2.6	1.9
2/9/2022									

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
5/19/2016					
5/20/2016					
5/23/2016	15.4				
5/24/2016		9.33			
7/11/2016					
7/12/2016	16	11.9			
8/30/2016					
9/1/2016	12.3	8.8			
10/19/2016					
10/20/2016					
10/24/2016	13.7				
10/25/2016		8.5			
12/6/2016					
12/7/2016	16.5				
12/8/2016		7.15			
1/24/2017					
1/26/2017	19.2	9.17			
3/21/2017					
3/22/2017					
3/23/2017	23.1	10.6			
5/22/2017					
5/23/2017					
5/24/2017	25.8				
5/25/2017		13.2			
10/3/2017					
10/4/2017	20.5	10			
6/4/2018					
6/5/2018		8.4			
6/6/2018	16.7				
10/1/2018					
10/2/2018					
10/3/2018	16.4	9.3			
4/1/2019					
4/2/2019					
4/4/2019					
4/5/2019	12.5	6.4			
9/23/2019					
9/24/2019	14.7				
9/25/2019		11.7			
3/25/2020					
3/26/2020					
3/30/2020	11.7				
3/31/2020		9.4			
9/15/2020		9.4			
9/16/2020			0.061 (J)	0.23	
9/17/2020					0.098 (J)
9/18/2020	11				
11/10/2020			0.057 (J)	0.29	
11/11/2020					0.058 (J)
12/15/2020			0.052 (J)	0.31	0.043 (J)
1/19/2021			0.049 (J)	0.4	
1/20/2021					0.045 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
3/10/2021				0.39	0.048
3/11/2021			0.06		
3/16/2021					
3/17/2021	11.8				
3/18/2021		8.9			
8/11/2021			0.042		
8/12/2021					0.044
8/13/2021				0.31	
8/18/2021	8.6				
8/19/2021		8.6			
2/1/2022			0.05	0.44	
2/7/2022					0.047
2/8/2022		8.1			
2/9/2022	9.9				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
5/19/2016	138	48.4	35.5	76.2	22.9				
5/20/2016						56.1			
5/23/2016							225	146	184
5/24/2016									
7/11/2016	97.2	73	35.4		22.3	49.3			
7/12/2016				61.5			199	142	186
8/30/2016	97.5	85.7	28	65.1	26.4	53.9			
9/1/2016							213	141	189
10/19/2016	99.2	89.7		73.2	21.7				
10/20/2016			26.7			50.7			
10/24/2016									200
10/25/2016							206	138	
12/6/2016	105	80		74.9	18.2				
12/7/2016							212	146	203
12/8/2016			23.5			49.2			
1/24/2017	95.7	30.8	24.5	69.6	18.5	48.3			
1/26/2017							198	139	212
3/21/2017	106	34	30.8	75.7	18.6	51.3			
3/22/2017							239	150	
3/23/2017									229
5/22/2017	107			71.5	17.8				
5/23/2017		43	24.2			49.1			
5/24/2017								153	265
5/25/2017							292		
10/3/2017	102	46.9	29	76.3	20.2	55.1			
10/4/2017							305	156	230
6/4/2018	124	81.9		73.4	19.1				
6/5/2018			27.8			54.5			
6/6/2018							299	177	250
10/1/2018	108	22 (J)		80.9	20.5 (J)				
10/2/2018			28.9			54.7			
10/3/2018							286	160	234
4/1/2019				80.5					
4/2/2019	132	76	26.3		22.5 (J)	49.7			
4/4/2019								196	214
4/5/2019							340		
9/23/2019	118			71	19.5				
9/24/2019		36.6	29.3			52.5			202
9/25/2019							305	185	
3/25/2020	127			89.8	23	58.1			
3/26/2020		14.9	27.8						240
3/30/2020								208	
3/31/2020							328		
9/15/2020	103	20.4	27.9	73.1	21.1	49.9			
9/16/2020							277		
9/17/2020								190	188
9/18/2020									
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
1/20/2021									

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
3/10/2021	111	5.9							
3/11/2021			28.3	83.8	43.8	53.1			
3/16/2021									196
3/17/2021								198	
3/18/2021							266		
8/11/2021	113								
8/12/2021		5.4	32	84	21.9	54.7			
8/13/2021									
8/18/2021							281		
8/19/2021								207	203
2/1/2022	106			85.1	27.2				
2/7/2022		5.9	30			53.4			
2/8/2022							280	218	186
2/9/2022									

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
5/19/2016					
5/20/2016					
5/23/2016	664				
5/24/2016		403			
7/11/2016					
7/12/2016	528	328			
8/30/2016					
9/1/2016	586	379			
10/19/2016					
10/20/2016					
10/24/2016	564				
10/25/2016		362			
12/6/2016					
12/7/2016	590				
12/8/2016		366			
1/24/2017					
1/26/2017	558	394			
3/21/2017					
3/22/2017					
3/23/2017	652	440			
5/22/2017					
5/23/2017					
5/24/2017	617				
5/25/2017		492			
10/3/2017					
10/4/2017	644	470			
6/4/2018					
6/5/2018		425			
6/6/2018	606				
10/1/2018					
10/2/2018					
10/3/2018	558	421			
4/1/2019					
4/2/2019					
4/4/2019					
4/5/2019	606	400			
9/23/2019					
9/24/2019	507				
9/25/2019		437			
3/25/2020					
3/26/2020					
3/30/2020	600				
3/31/2020		418			
9/15/2020		430			
9/16/2020			56	30	
9/17/2020					43.8
9/18/2020	623				
11/10/2020			63.3	33.6	
11/11/2020					44.4
12/15/2020			62.6	28.7	47.3
1/19/2021			60.1	33	
1/20/2021					41.8

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
3/10/2021				18.3	43.4
3/11/2021			59.6		
3/16/2021					
3/17/2021	572				
3/18/2021		407			
8/11/2021			61		
8/12/2021					43.6
8/13/2021				28.9	
8/18/2021	583				
8/19/2021		416			
2/1/2022			55.9	24.8	
2/7/2022					48.7
2/8/2022		418			
2/9/2022	571				

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
5/19/2016	9.94	4.56	1.57	5.93	6.14				
5/20/2016						1.35			
5/23/2016							94	25.8	209
5/24/2016									
7/11/2016	6.3	5	2		5.9	1.7			
7/12/2016				6.2			100	34	190
8/30/2016	6	4.9	2	6.4	6.2	1.6			
9/1/2016							95	34	200
10/19/2016	5.8	4.6		6.5	6.1				
10/20/2016			2.2			1.6			
10/24/2016									200
10/25/2016							98	35	
12/6/2016	5.4	4.5		7.2	6				
12/7/2016							89	38	240
12/8/2016			2			1.6			
1/24/2017	5.2	4.7	1.6	6.4	6.1	1.9			
1/26/2017							99	41	260
3/21/2017	4.6	4.3	2	7.5	5.9	1.3			
3/22/2017							100	41	
3/23/2017									280
5/22/2017	4.6			6.5	5.9				
5/23/2017		4.5	1.7			1.2			
5/24/2017								44	240
5/25/2017							99		
10/3/2017	5.6	4.8	1.7	6.5	6.3	2.1			
10/4/2017							130	50	210
6/4/2018	13.1	4.5		6.3	6.1				
6/5/2018			1.6			1.2			
6/6/2018							166	50.6	196
10/1/2018	6.6	3.8		6.4	6.4				
10/2/2018			2.4			1.7			
10/3/2018							193	49.9	200
4/1/2019				6.5					
4/2/2019	20.3	4.4	1.7		5.8	1.6			
4/4/2019								76.8	138
4/5/2019							195		
9/23/2019	17.7			5.9	5.1				
9/24/2019		3.6	1.7			1.3			120
9/25/2019							139	84.4	
3/25/2020	20.4			6.1	5.2	1.2			
3/26/2020		3.4	1.4						142
3/30/2020								80.2	
3/31/2020							161		
9/15/2020	13.4	3.3	1.7	6	5	1.2			
9/16/2020							156		
9/17/2020								99.3	108
9/18/2020									
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
1/20/2021									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
3/10/2021	7.4	2.9							
3/11/2021			1.4	5.9	5.1	1.2			
3/16/2021									103
3/17/2021								93.8	
3/18/2021							138		
8/11/2021	9.6								
8/12/2021		2.4	1.4	4.8	5.2	0.94 (J)			
8/13/2021									
8/18/2021							90.7		
8/19/2021								90.1	89.9
2/1/2022	7.5			5.7	7				
2/7/2022		2.4	1.4			1.1			
2/8/2022							117	96.4	76.6
2/9/2022									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
5/19/2016					
5/20/2016					
5/23/2016	659				
5/24/2016		280			
7/11/2016					
7/12/2016	620	300			
8/30/2016					
9/1/2016	510	270			
10/19/2016					
10/20/2016					
10/24/2016	110				
10/25/2016		290			
12/6/2016					
12/7/2016	510				
12/8/2016		300			
1/24/2017					
1/26/2017	640	340			
3/21/2017					
3/22/2017					
3/23/2017	600	350			
5/22/2017					
5/23/2017					
5/24/2017	510				
5/25/2017		290			
10/3/2017					
10/4/2017	420	260			
6/4/2018					
6/5/2018		261			
6/6/2018	357				
10/1/2018					
10/2/2018					
10/3/2018	368	302			
4/1/2019					
4/2/2019					
4/4/2019					
4/5/2019	227	217			
9/23/2019					
9/24/2019	188				
9/25/2019		181			
3/25/2020					
3/26/2020					
3/30/2020	236				
3/31/2020		126			
9/15/2020		150			
9/16/2020			4.1	7.2	
9/17/2020					5.8
9/18/2020	288				
11/10/2020			4.4	7.8	
11/11/2020					3.1
12/15/2020			4.7	9.4	3.2
1/19/2021			4.1	9.5	
1/20/2021					2.8

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
3/10/2021				12.3	3
3/11/2021			4.5		
3/16/2021					
3/17/2021	233				
3/18/2021		90.2			
8/11/2021			3.5		
8/12/2021					2.6
8/13/2021				39.9	
8/18/2021	141				
8/19/2021		95.8			
2/1/2022			4.1	44.8	
2/7/2022					3.1
2/8/2022		105			
2/9/2022	174				

Prediction Limit

Constituent: Field pH (s.u.) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-15	HGWC-14	HGWC-17
5/19/2016	7.27	6.51	7.45	5.81	6.62				
5/20/2016						7.58			
5/23/2016							6.17	4.56	6.4
5/24/2016									
7/11/2016	7.06	6.65		5.68	6.54	7.32			
7/12/2016			7.32				6.17	4.49	6.09
8/30/2016	7.28	7.14	7.43	5.63	6.38	7.69			
9/1/2016							6.22	4.54	6.35
10/19/2016	7.02	7.08	7.03	5.46					
10/20/2016					6.52	7.43			
10/24/2016							5.97	4.63	
10/25/2016									6.23
12/6/2016	7.09	7	7.08	5.38					
12/7/2016							5.87	4.6	6.23
12/8/2016					6.5	7.56			
1/24/2017	7.2	6.16	7.39	5.37	6.59	7.52			
1/26/2017							6.05	4.8	6.24
3/21/2017	7.01	6.07	6.83	4.9	6.55	7.4			
3/22/2017									6.25
3/23/2017							5.79	4.57	
5/22/2017	7.11		7.02	5.2					
5/23/2017		6.28			6.5	7.53			
5/24/2017							6.01	4.61	
5/25/2017									6.27
10/3/2017	7.21	6.45	7.47	5.3	6.63	7.51			
10/4/2017							5.82	4.74	6.18
4/2/2018	7.1	6.23		5.4					
4/3/2018			7.38		6.59	7.53	5.98		6.22
4/4/2018								4.5	
6/4/2018	7.06	6.82	7.38	5.27					
6/5/2018					6.44	7.37			
6/6/2018							6.12	4.49	6.22
10/1/2018	7.09	5.73	7.13	5.31					
10/2/2018					6.35	7.36			
10/3/2018							5.92	4.67	6.23
3/11/2019		6.27							
3/12/2019	7.03		7.29	5.42	6.42	7.5			
3/14/2019							5.71	4.66	
3/15/2019									6.32
4/1/2019			7.16						
4/2/2019	6.86	6.66		5.41	6.38	7.46			
4/4/2019							5.66		
4/5/2019								4.67	6.26
9/23/2019	7.02		7.3	5.33					
9/24/2019		6.16			6.4	7.41	6.33	4.77	
9/25/2019									6.28
3/2/2020	7.1	5.63	7.12	5.43	6.8	7.67			
3/3/2020							6	4.77	6.35
3/25/2020	6.95		7.4	5.36		7.39			
3/26/2020		5.77			6.38		6.03		
3/30/2020								4.57	
3/31/2020									6.28

Prediction Limit

Constituent: Field pH (s.u.) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-15	HGWC-14	HGWC-17
9/15/2020	7.15	5.75	7.29	5.22	6.33	7.37			
9/16/2020									6.35
9/17/2020							6.11		
9/18/2020								4.88	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
1/20/2021									
2/8/2021	7.11	4.94							
2/9/2021			7.23	5.42	6.35	7.4			
2/10/2021									
2/11/2021								4.84	6.31
2/12/2021							5.99		
3/10/2021	6.95	5.28							
3/11/2021			7.33	5.8	6.48	7.56			
3/16/2021							6.08		
3/17/2021								4.72	
3/18/2021									6.43
8/11/2021	6.98								
8/12/2021		5.26	7.31	5.05	6.46	7.47			
8/13/2021									
8/18/2021								4.9	6.43
8/19/2021							6.18		
2/1/2022	7.19		7.45	5.24					
2/7/2022		5.24			6.51	7.65			
2/8/2022							6.04		6.42
2/9/2022								4.97	

Prediction Limit

Constituent: Field pH (s.u.) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-16	HGWC-18	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-42D (bg)
5/19/2016					
5/20/2016					
5/23/2016	7.15				
5/24/2016		4.83			
7/11/2016					
7/12/2016	7.1	4.58			
8/30/2016					
9/1/2016	7.29	4.51			
10/19/2016					
10/20/2016					
10/24/2016					
10/25/2016	7.03	4.53			
12/6/2016					
12/7/2016	6.85				
12/8/2016		4.56			
1/24/2017					
1/26/2017	7.07	4.61			
3/21/2017					
3/22/2017	7.15				
3/23/2017		4.63			
5/22/2017					
5/23/2017					
5/24/2017	7.11				
5/25/2017		4.69			
10/3/2017					
10/4/2017	7.17	4.58			
4/2/2018					
4/3/2018	7.07	4.54			
4/4/2018					
6/4/2018					
6/5/2018		4.57			
6/6/2018	7				
10/1/2018					
10/2/2018					
10/3/2018	6.94	4.41			
3/11/2019					
3/12/2019					
3/14/2019		4.39			
3/15/2019	7.09				
4/1/2019					
4/2/2019					
4/4/2019	6.95				
4/5/2019		4.5			
9/23/2019					
9/24/2019					
9/25/2019	6.92	4.54			
3/2/2020					
3/3/2020	7.1	4.55			
3/25/2020					
3/26/2020					
3/30/2020	7.09				
3/31/2020		4.43			

Prediction Limit

Constituent: Field pH (s.u.) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-16	HGWC-18	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-42D (bg)
9/15/2020		4.47			
9/16/2020			7.83	7.52	
9/17/2020	7.11				7.62
9/18/2020					
11/10/2020			7.84	7.27	
11/11/2020					7.68
12/15/2020			7.87	7.39	7.64
1/19/2021			7.86	7.39	
1/20/2021					7.68
2/8/2021					7.64
2/9/2021			7.84	7.44	
2/10/2021	7.08				
2/11/2021		4.53			
2/12/2021					
3/10/2021			7.92		7.7
3/11/2021				7.46	
3/16/2021					
3/17/2021	7.19				
3/18/2021		4.54			
8/11/2021				7.4	
8/12/2021					7.7
8/13/2021			7.77		
8/18/2021					
8/19/2021	7.04	4.43			
2/1/2022			8.25	7.52	
2/7/2022					7.85
2/8/2022	7.18	4.59			
2/9/2022					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-15	HGWC-14	HGWC-17
5/19/2016	0.105 (J)	0.036 (J)	0.0513 (J)	0.0303 (J)	0.08 (J)				
5/20/2016						0.065 (J)			
5/23/2016							<0.1	<0.1	<0.1
5/24/2016									
7/11/2016	0.16 (J)	0.09 (J)		0.05 (J)	0.09 (J)	0.13 (J)			
7/12/2016			0.12 (J)				0.09 (J)	0.2 (J)	0.09 (J)
8/30/2016	0.09 (J)	0.06 (J)	0.09 (J)	0.06 (J)	0.08 (J)	0.07 (J)			
9/1/2016							0.22 (J)	0.08 (J)	0.03 (J)
10/19/2016	0.1 (J)	0.07 (J)	0.1 (J)	0.04 (J)					
10/20/2016					0.1 (J)	0.06 (J)			
10/24/2016							0.07 (J)	0.04 (J)	
10/25/2016									0.07 (J)
12/6/2016	0.11 (J)	0.07 (J)	0.21 (J)	0.36					
12/7/2016							0.23 (J)	0.11 (J)	0.54
12/8/2016					0.08 (J)	0.06 (J)			
1/24/2017	0.09 (J)	<0.1	0.06 (J)	<0.1	0.09 (J)	0.02 (J)			
1/26/2017							<0.1	0.13 (J)	<0.1
3/21/2017	0.13 (J)	<0.1	0.005 (J)	<0.1	0.04 (J)	0.08 (J)			
3/22/2017									0.07 (J)
3/23/2017							0.12 (J)	0.28 (J)	
5/22/2017	0.12 (J)		0.05 (J)	<0.1					
5/23/2017		0.01 (J)			0.04 (J)	0.006 (J)			
5/24/2017							0.31	0.32	
5/25/2017									0.42
10/3/2017	0.13 (J)	<0.1	0.13 (J)	<0.1	0.06 (J)	<0.1			
10/4/2017							0.6	0.52	0.93
4/2/2018	<0.1	<0.1		<0.1					
4/3/2018			<0.1		<0.1	<0.1	<0.1		<0.1
4/4/2018								<0.1	
6/4/2018	0.074 (J)	0.097 (J)	<0.1	<0.1					
6/5/2018					0.083 (J)	0.055 (J)			
6/6/2018							0.17 (J)	0.25 (J)	0.23 (J)
10/1/2018	<0.1	<0.1	<0.1	<0.1					
10/2/2018					<0.1	0.076 (J)			
10/3/2018							<0.1	0.21 (J)	<0.1
3/11/2019		0.035 (J)							
3/12/2019	0.29 (J)		0.072 (J)	0.038 (J)	0.079 (J)	0.061 (J)			
3/14/2019							<0.1	0.24 (J)	
3/15/2019									<0.1
4/1/2019			0.029 (J)						
4/2/2019	0.1 (J)	<0.1		0.071 (J)	0.12 (J)	<0.1			
4/4/2019							0.066 (J)		
4/5/2019								0.66	0.16 (J)
9/23/2019	0.078 (J)		<0.1	<0.1					
9/24/2019		<0.1			0.058 (J)	<0.1	0.12 (J)	0.053 (J)	
9/25/2019									0.081 (J)
3/2/2020	0.076 (J)	<0.1	<0.1	<0.1	0.053 (J)	<0.1			
3/3/2020							0.064 (J)	<0.1	<0.1
3/25/2020	0.098 (J)		<0.1	<0.1		<0.1			
3/26/2020		<0.1			0.066 (J)		<0.1		
3/30/2020								0.092 (J)	
3/31/2020									<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-5 (bg)	HGWA-6 (bg)	HGWC-15	HGWC-14	HGWC-17
9/15/2020	0.082 (J)	<0.1	<0.1	<0.1	0.061 (J)	<0.1			
9/16/2020									0.058 (J)
9/17/2020							<0.1		
9/18/2020								<0.1	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
1/20/2021									
2/8/2021	0.078 (J)	<0.1							
2/9/2021			0.074 (J)	<0.1	0.053 (J)	<0.1			
2/10/2021									
2/11/2021								0.059 (J)	0.058 (J)
2/12/2021							0.053 (J)		
3/10/2021	0.079 (J)	<0.1							
3/11/2021			<0.1	0.1	0.06 (J)	0.17			
3/16/2021							<0.1		
3/17/2021								0.076 (J)	
3/18/2021									0.057 (J)
8/11/2021	0.058 (J)								
8/12/2021		<0.1	<0.1	<0.1	<0.1	<0.1			
8/13/2021									
8/18/2021								<0.1	0.062 (J)
8/19/2021							<0.1		
2/1/2022	0.064 (J)		<0.1	<0.1					
2/7/2022		<0.1			<0.1	<0.1			
2/8/2022							<0.1		0.055 (J)
2/9/2022								0.053 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-16	HGWC-18	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-42D (bg)
5/19/2016					
5/20/2016					
5/23/2016	0.038 (J)				
5/24/2016		<0.1			
7/11/2016					
7/12/2016	0.26 (J)	0.54			
8/30/2016					
9/1/2016	0.42	0.49			
10/19/2016					
10/20/2016					
10/24/2016					
10/25/2016	0.25 (J)	0.58			
12/6/2016					
12/7/2016	0.23 (J)				
12/8/2016		0.63			
1/24/2017					
1/26/2017	0.02 (J)	0.71			
3/21/2017					
3/22/2017	0.3				
3/23/2017		0.57			
5/22/2017					
5/23/2017					
5/24/2017	0.46				
5/25/2017		0.54			
10/3/2017					
10/4/2017	<0.1	0.95			
4/2/2018					
4/3/2018	<0.1	0.33			
4/4/2018					
6/4/2018					
6/5/2018		0.66			
6/6/2018	<0.1				
10/1/2018					
10/2/2018					
10/3/2018	<0.1	0.32			
3/11/2019					
3/12/2019					
3/14/2019		0.88			
3/15/2019	<0.1				
4/1/2019					
4/2/2019					
4/4/2019	<0.1				
4/5/2019		0.37			
9/23/2019					
9/24/2019					
9/25/2019	<0.1	0.73			
3/2/2020					
3/3/2020	<0.1	0.34			
3/25/2020					
3/26/2020					
3/30/2020	0.059 (J)				
3/31/2020		0.45			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-16	HGWC-18	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-42D (bg)
9/15/2020		0.31			
9/16/2020			0.52	0.22	
9/17/2020	<0.1				0.2
9/18/2020					
11/10/2020			0.59	0.19	
11/11/2020					0.1
12/15/2020			0.67	0.21	0.11
1/19/2021			0.74	0.16	
1/20/2021					0.082 (J)
2/8/2021					0.096 (J)
2/9/2021			0.44	0.19	
2/10/2021	0.21				
2/11/2021		0.71			
2/12/2021					
3/10/2021			0.65		0.11
3/11/2021				0.2	
3/16/2021					
3/17/2021	<0.1				
3/18/2021		0.64			
8/11/2021				0.15	
8/12/2021					0.079 (J)
8/13/2021			0.87		
8/18/2021					
8/19/2021	<0.1	0.31			
2/1/2022			0.96	0.19	
2/7/2022					0.085 (J)
2/8/2022	<0.1	0.19			
2/9/2022					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
5/19/2016	66.9	1.22	25	42.3	48.6				
5/20/2016						34.4			
5/23/2016							395	203	424
5/24/2016									
7/11/2016	41	3.7	27		45	34			
7/12/2016				44			460	220	440
8/30/2016	36	6.8	23	40	42	36			
9/1/2016							430	220	440
10/19/2016	46	11		43	44				
10/20/2016			19			36			
10/24/2016									420
10/25/2016							440	230	
12/6/2016	59	13		43	44				
12/7/2016							410	220	450
12/8/2016			20			36			
1/24/2017	46	5.7	20	48	46	37			
1/26/2017							440	250	490
3/21/2017	63	1.7	23	45	46	37			
3/22/2017							460	240	
3/23/2017									530
5/22/2017	77			46	48				
5/23/2017		1.5	21			38			
5/24/2017								230	500
5/25/2017							430		
10/3/2017	42	1.3	21	48	47	38			
10/4/2017							490	220	560
6/4/2018	71.8	4.9		46.6	47.8				
6/5/2018			22.9			38			
6/6/2018							520	233	469
10/1/2018	49.1	0.59 (J)		48.6	48.1				
10/2/2018			20.3			38.5			
10/3/2018							651	215	600
4/1/2019				50.4					
4/2/2019	84.3	4.9	23.8		48.7	35.5			
4/4/2019								251	528
4/5/2019							642		
9/23/2019	70.2			43.9	47.2				
9/24/2019		<1	20.7			35.4			382
9/25/2019							434	223	
3/25/2020	85.9			50.5	46.3	35.1			
3/26/2020		<1	21.6						438
3/30/2020								223	
3/31/2020							484		
9/15/2020	47.3	<1	21.2	44.7	51.5	35.3			
9/16/2020							467		
9/17/2020								254	416
9/18/2020									
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
1/20/2021									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
3/10/2021	49.6	1.2							
3/11/2021			22.7	50.4	52.9	35.5			
3/16/2021									379
3/17/2021								250	
3/18/2021							447		
8/11/2021	48.9								
8/12/2021		1.1	17.4	38.6	47.4	28.6			
8/13/2021									
8/18/2021							280		
8/19/2021								228	223
2/1/2022	43.7			46	67.1				
2/7/2022		2.9	20.6			33			
2/8/2022							364	238	360
2/9/2022									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
5/19/2016					
5/20/2016					
5/23/2016	1070				
5/24/2016		834			
7/11/2016					
7/12/2016	1300	930			
8/30/2016					
9/1/2016	1300	890			
10/19/2016					
10/20/2016					
10/24/2016	280				
10/25/2016		950			
12/6/2016					
12/7/2016	1300				
12/8/2016		910			
1/24/2017					
1/26/2017	1400	970			
3/21/2017					
3/22/2017					
3/23/2017	1500	980			
5/22/2017					
5/23/2017					
5/24/2017	1400				
5/25/2017		920			
10/3/2017					
10/4/2017	1400	870			
6/4/2018					
6/5/2018		962			
6/6/2018	1520				
10/1/2018					
10/2/2018					
10/3/2018	1550	1170			
4/1/2019					
4/2/2019					
4/4/2019					
4/5/2019	1520	1030			
9/23/2019					
9/24/2019	1110				
9/25/2019		920			
3/25/2020					
3/26/2020					
3/30/2020	1150				
3/31/2020		934			
9/15/2020		1080			
9/16/2020			43	6.9	
9/17/2020					10.9
9/18/2020	1260				
11/10/2020			39	6.3	
11/11/2020					9.4
12/15/2020			38.8	6.7	10.9
1/19/2021			37.3	7.4	
1/20/2021					9.8

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
3/10/2021				<1	10.8
3/11/2021			38.6		
3/16/2021					
3/17/2021	1300				
3/18/2021		1050			
8/11/2021			30.5		
8/12/2021					7.8
8/13/2021				56.1	
8/18/2021	768				
8/19/2021		934			
2/1/2022			37.5	56.3	
2/7/2022					10.4
2/8/2022		960			
2/9/2022	1190				

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
5/19/2016	421	165	168	267	143				
5/20/2016						223			
5/23/2016							1010	570	1270
5/24/2016									
7/11/2016	363	266	158		125	225			
7/12/2016				249			976	585	1100
8/30/2016	330	292	141	254	168	232			
9/1/2016							1060	625	1180
10/19/2016	380	338		357	176				
10/20/2016			99			225			
10/24/2016									1090
10/25/2016							<25	563	
12/6/2016	377	356		285	145				
12/7/2016							866	561	1040
12/8/2016			116			235			
1/24/2017	342	131	156	300	129	272			
1/26/2017							1000	608	1260
3/21/2017	340	132	144	288	103	222			
3/22/2017							1080	599	
3/23/2017									1360
5/22/2017	338			263	92				
5/23/2017		183	134			231			
5/24/2017								598	1320
5/25/2017							1080		
10/3/2017	343	161	147	300	127	243			
10/4/2017							1210	626	1340
6/4/2018	415	240		266	140				
6/5/2018			152			235			
6/6/2018							1180	678	1120
10/1/2018	354	106		291	135				
10/2/2018			146			228			
10/3/2018							1250	700	1140
4/1/2019				284					
4/2/2019	452	230	144		133	238			
4/4/2019								704	926
4/5/2019							1260		
9/23/2019	442			268	129				
9/24/2019		131	133			222			1140
9/25/2019							1280	813	
3/25/2020	496			284	138	240			
3/26/2020		69	104						1000
3/30/2020								787	
3/31/2020							1310		
9/15/2020	265	93	116	258	124	217			
9/16/2020							1220		
9/17/2020								804	956
9/18/2020									
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
1/20/2021									

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWA-1 (bg)	HGWA-4 (bg)	HGWA-5 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-6 (bg)	HGWC-17	HGWC-16	HGWC-15
3/10/2021	348	53							
3/11/2021			118	267	169	215			
3/16/2021									92
3/17/2021								768	
3/18/2021							1020		
8/11/2021	366								
8/12/2021		55	158	265	118	229			
8/13/2021									
8/18/2021							1290		
8/19/2021								816	958
2/1/2022	270			350	156				
2/7/2022		54	135			224			
2/8/2022							1160	852	866
2/9/2022									

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
5/19/2016					
5/20/2016					
5/23/2016	4130				
5/24/2016		1900			
7/11/2016					
7/12/2016	3140	1950			
8/30/2016					
9/1/2016	3200	2000			
10/19/2016					
10/20/2016					
10/24/2016	2920				
10/25/2016		1870			
12/6/2016					
12/7/2016	2740				
12/8/2016		1930			
1/24/2017					
1/26/2017	3080	1950			
3/21/2017					
3/22/2017					
3/23/2017	3060	2080			
5/22/2017					
5/23/2017					
5/24/2017	3140				
5/25/2017		1970			
10/3/2017					
10/4/2017	3210	2200			
6/4/2018					
6/5/2018		1880			
6/6/2018	2620				
10/1/2018					
10/2/2018					
10/3/2018	2430	2180			
4/1/2019					
4/2/2019					
4/4/2019					
4/5/2019	2310	1610			
9/23/2019					
9/24/2019	2470				
9/25/2019		1960			
3/25/2020					
3/26/2020					
3/30/2020	2590				
3/31/2020		1860			
9/15/2020		1890			
9/16/2020			272	270	
9/17/2020					188
9/18/2020	2440				
11/10/2020			307	287	
11/11/2020					175
12/15/2020			289	295	193
1/19/2021			270	278	
1/20/2021					158

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/27/2022 6:05 PM View: Appendix III

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-18	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-42D (bg)
3/10/2021				289	163
3/11/2021			279		
3/16/2021					
3/17/2021	1640				
3/18/2021		1390			
8/11/2021			277		
8/12/2021					179
8/13/2021				436	
8/18/2021	2350				
8/19/2021		1750			
2/1/2022			156	444	
2/7/2022					190
2/8/2022		1770			
2/9/2022	2310				

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**HGWA-2 (bg)**	**0.002699**	**99**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-16**	**0.2592**	**105**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-3 (bg)**	**2.416**	**77**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-4 (bg)**	**-9.763**	**-86**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-16**	**13.65**	**120**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWA-4 (bg)**	**-0.4101**	**-117**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWA-44D (bg)**	**20.44**	**21**	**18**	**Yes**	**7**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWA-6 (bg)**	**-0.09427**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-14**	**-82.72**	**-94**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-15**	**-24.78**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-16**	**13.04**	**137**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-18**	**-37.28**	**-87**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (s.u.)	**HGWA-4 (bg)**	**-0.2883**	**-144**	**-92**	**Yes**	**22**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.393**	**83**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWA-4 (bg)**	**-31.44**	**-90**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-14**	**-185.6**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-16**	**51.63**	**117**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-17**	**63.57**	**86**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-1 (bg)	-0.0002287	-9	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWA-2 (bg)**	**0.002699**	**99**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWA-3 (bg)	0	-1	-68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-4 (bg)	-0.0007228	-34	-68	No	18	5.556	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-42D (bg)	-0.009419	-7	-18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-43D (bg)	-0.01252	-11	-18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-44D (bg)	0.1524	14	18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-5 (bg)	0.0001545	14	68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-6 (bg)	-0.0003871	-21	-68	No	18	5.556	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-14	-1.157	-61	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-15	0.04163	28	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWC-16**	**0.2592**	**105**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWC-17	0.2168	31	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-18	-0.1628	-24	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-1 (bg)	2.173	48	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-2 (bg)	0.4885	35	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWA-3 (bg)**	**2.416**	**77**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-4 (bg)**	**-9.763**	**-86**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWA-42D (bg)	1.22	3	18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-43D (bg)	-3.578	-7	-18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-44D (bg)	-5.272	-9	-18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-5 (bg)	0.211	10	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-6 (bg)	0.3827	26	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-14	-3.303	-15	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-15	2.137	21	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-16**	**13.65**	**120**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWC-17	15.94	58	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-18	7.552	38	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-1 (bg)	0.5239	40	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-2 (bg)	-0.1714	-45	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-3 (bg)	-0.129	-59	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWA-4 (bg)**	**-0.4101**	**-117**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	HGWA-42D (bg)	-0.8588	-10	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-43D (bg)	-0.2444	-4	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWA-44D (bg)**	**20.44**	**21**	**18**	**Yes**	**7**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	HGWA-5 (bg)	-0.08595	-62	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWA-6 (bg)**	**-0.09427**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-14**	**-82.72**	**-94**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-15**	**-24.78**	**-89**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**HGWC-16**	**13.04**	**137**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	HGWC-17	9.415	55	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**HGWC-18**	**-37.28**	**-87**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (s.u.)	HGWA-1 (bg)	-0.02122	-51	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-2 (bg)	-0.04158	-52	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-3 (bg)	0.003685	8	92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	**HGWA-4 (bg)**	**-0.2883**	**-144**	**-92**	**Yes**	**22**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (s.u.)	HGWA-42D (bg)	0.1277	19	21	No	8	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-43D (bg)	0.09834	10	21	No	8	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-44D (bg)	0.1333	9	21	No	8	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-5 (bg)	-0.03318	-65	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWA-6 (bg)	-0.007348	-19	-92	No	22	0	n/a	n/a	0.01	NP
Field pH (s.u.)	HGWC-18	-0.02025	-67	-92	No	22	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-1 (bg)	1.419	24	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.393**	**83**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-3 (bg)	1.099	53	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-4 (bg)	-0.5358	-61	-68	No	18	16.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-42D (bg)	-0.4294	-6	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-43D (bg)	-8.864	-15	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-44D (bg)	7.3	9	18	No	7	14.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-5 (bg)	-0.4179	-28	-68	No	18	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

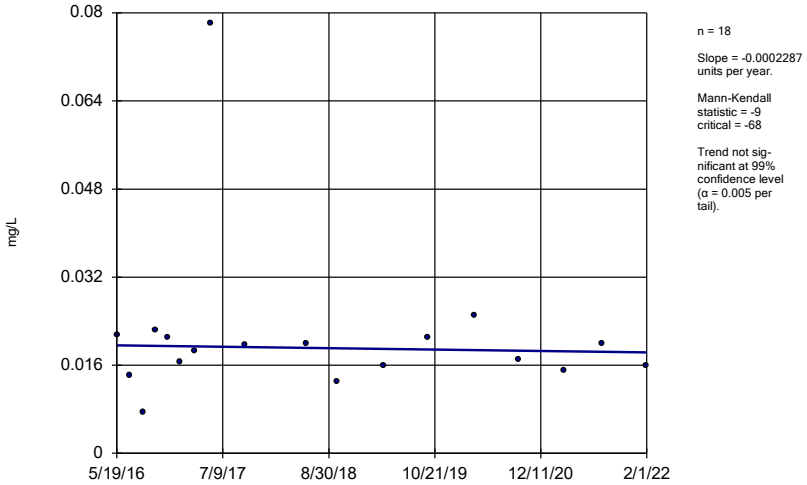
Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/27/2022, 6:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate (mg/L)	HGWA-6 (bg)	-0.1792	-21	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-14	0	3	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-15	-12.58	-34	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-16	2.897	52	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-17	2.005	14	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-18	21.73	55	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-1 (bg)	-2.458	-3	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-2 (bg)	-1.375	-12	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-3 (bg)	0	2	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWA-4 (bg)**	**-31.44**	**-90**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWA-42D (bg)	1.437	1	18	No	7	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-43D (bg)	-42.44	-9	-18	No	7	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-44D (bg)	112.8	15	18	No	7	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-5 (bg)	-4.011	-32	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-6 (bg)	-1.024	-16	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-14**	**-185.6**	**-99**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-15	-66.16	-68	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-16**	**51.63**	**117**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-17**	**63.57**	**86**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-18	-30.93	-44	-68	No	18	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 18

Slope = -0.0002287 units per year.

Mann-Kendall statistic = -9
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

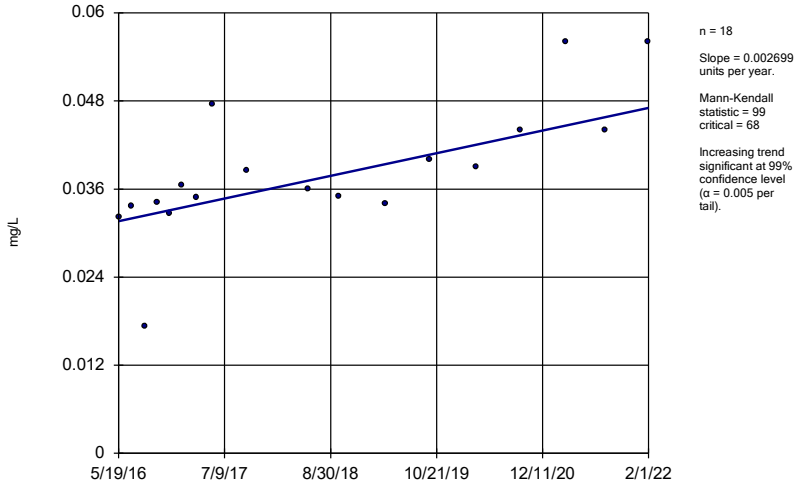
Constituent: Boron Analysis Run 4/27/2022 6:06 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 18

Slope = 0.002699 units per year.

Mann-Kendall statistic = 99
critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

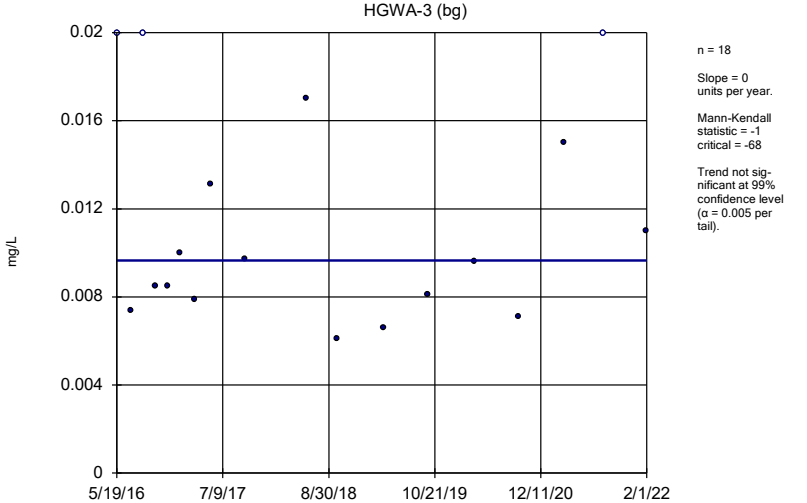
Constituent: Boron Analysis Run 4/27/2022 6:06 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-3 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

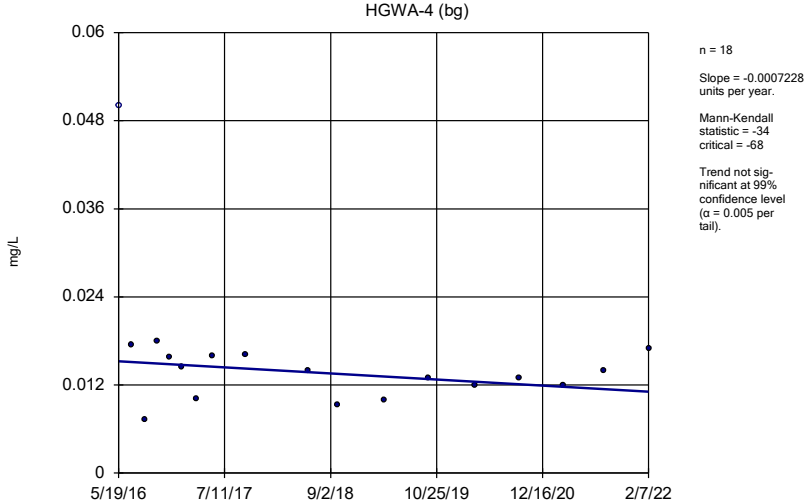
Constituent: Boron Analysis Run 4/27/2022 6:06 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-4 (bg)



n = 18

Slope = -0.0007228 units per year.

Mann-Kendall statistic = -34
critical = -68

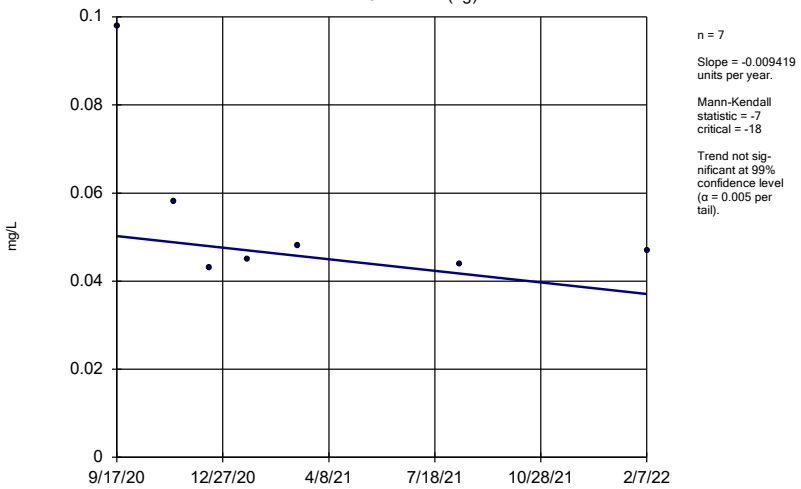
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/27/2022 6:06 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-42D (bg)



n = 7

Slope = -0.009419 units per year.

Mann-Kendall statistic = -7
critical = -18

Trend not significant at 99% confidence level (α = 0.005 per tail).

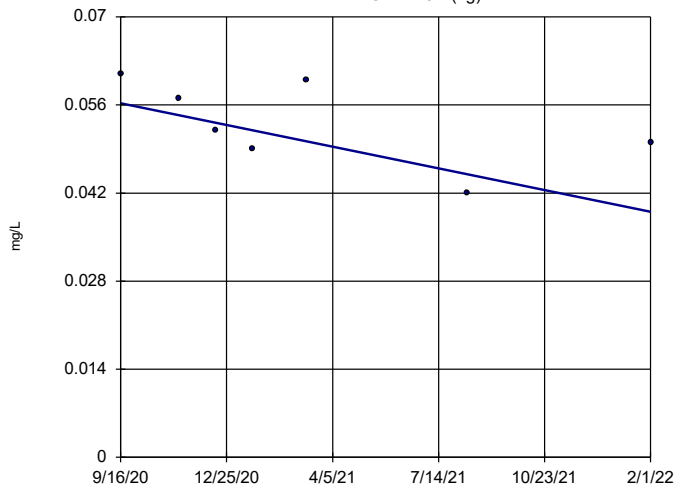
Constituent: Boron Analysis Run 4/27/2022 6:06 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 7

Slope = -0.01252 units per year.

Mann-Kendall statistic = -11
critical = -18

Trend not significant at 99% confidence level (α = 0.005 per tail).

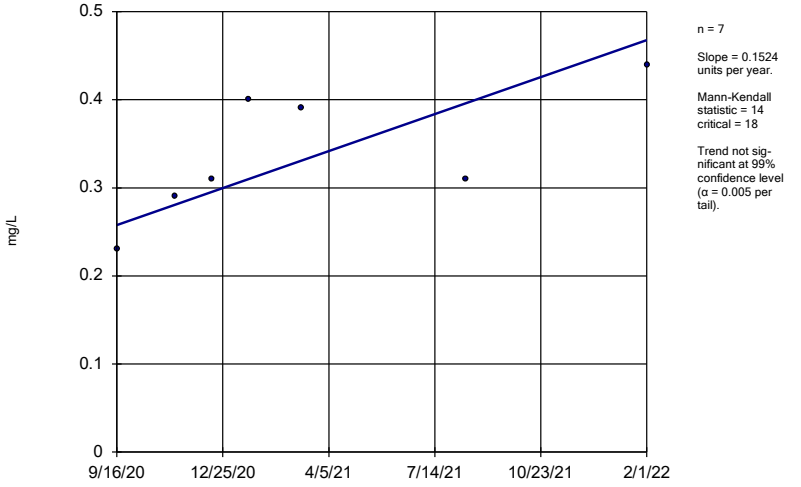
Constituent: Boron Analysis Run 4/27/2022 6:06 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-44D (bg)



n = 7

Slope = 0.1524 units per year.

Mann-Kendall statistic = 14
critical = 18

Trend not significant at 99% confidence level (α = 0.005 per tail).

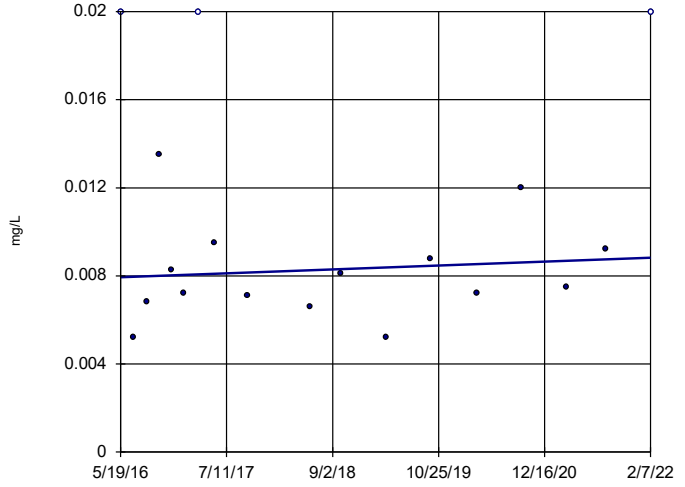
Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-5 (bg)



n = 18

Slope = 0.0001545 units per year.

Mann-Kendall statistic = 14
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

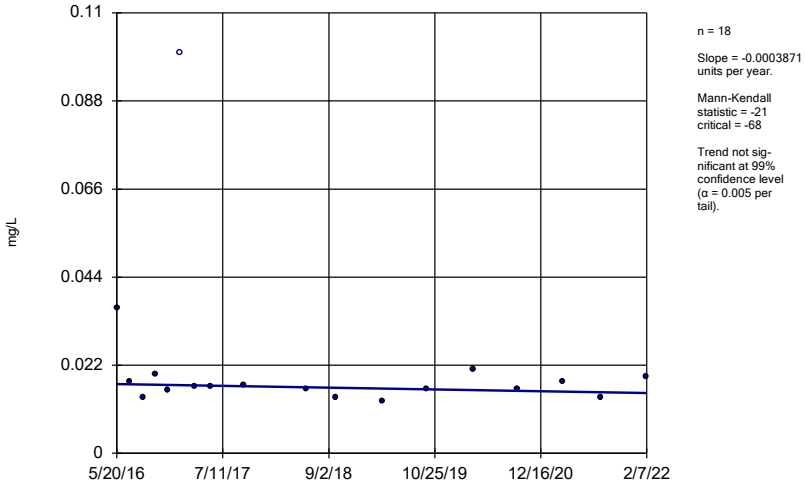
Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-6 (bg)



n = 18

Slope = -0.0003871 units per year.

Mann-Kendall statistic = -21
critical = -68

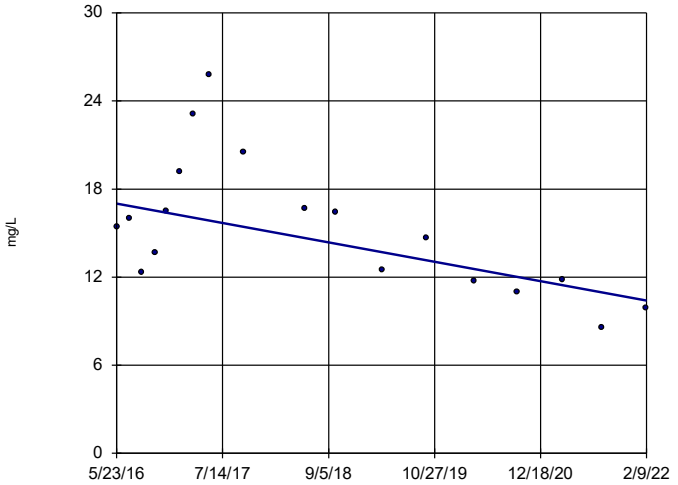
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-14



n = 18

Slope = -1.157 units per year.

Mann-Kendall statistic = -61
critical = -68

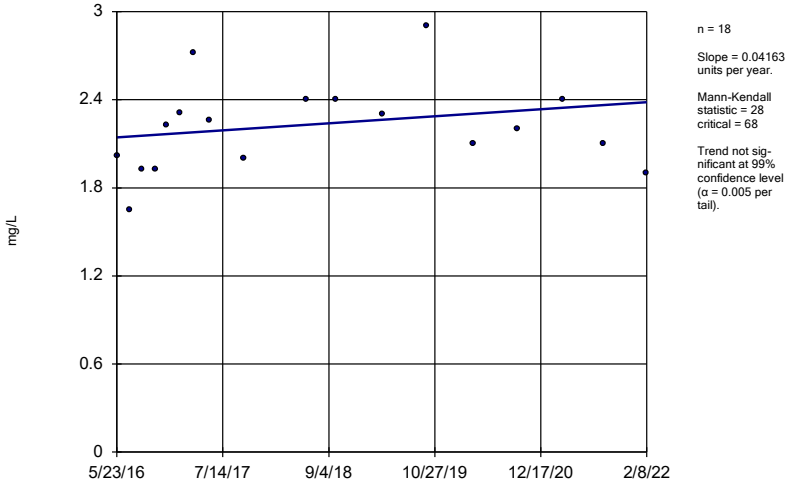
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-15



n = 18

Slope = 0.04163 units per year.

Mann-Kendall statistic = 28
critical = 68

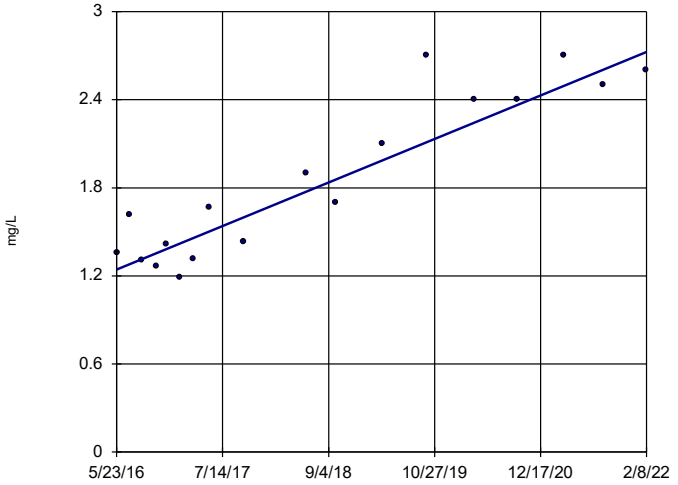
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-16



n = 18

Slope = 0.2592 units per year.

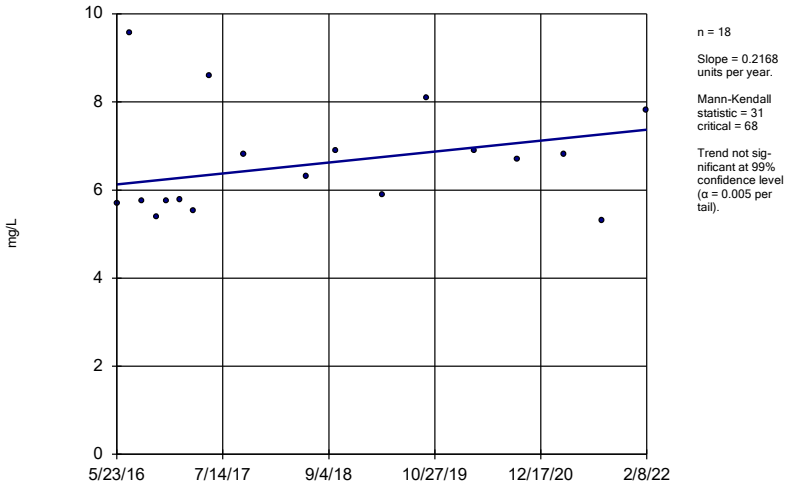
Mann-Kendall statistic = 105
critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWC-17



n = 18

Slope = 0.2168 units per year.

Mann-Kendall statistic = 31 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

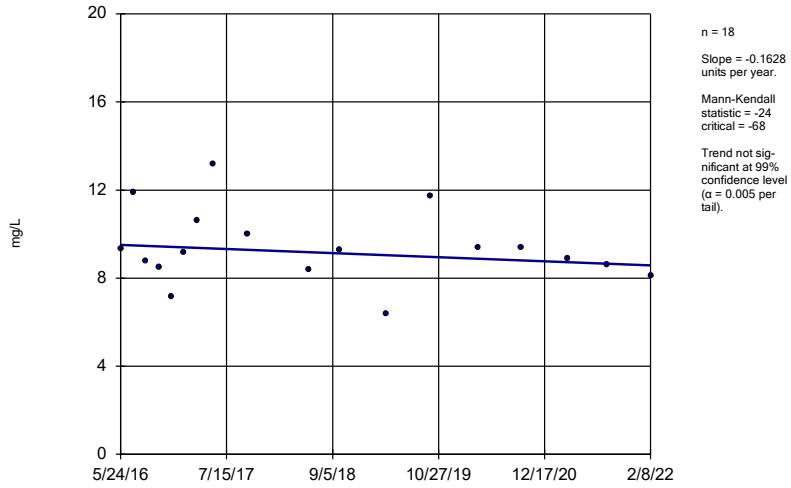
Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-18



n = 18

Slope = -0.1628 units per year.

Mann-Kendall statistic = -24 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

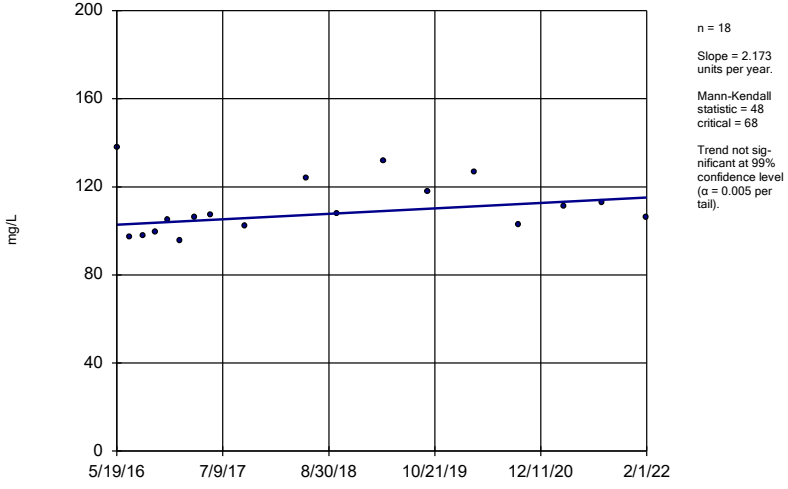
Constituent: Boron Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 18

Slope = 2.173 units per year.

Mann-Kendall statistic = 48 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

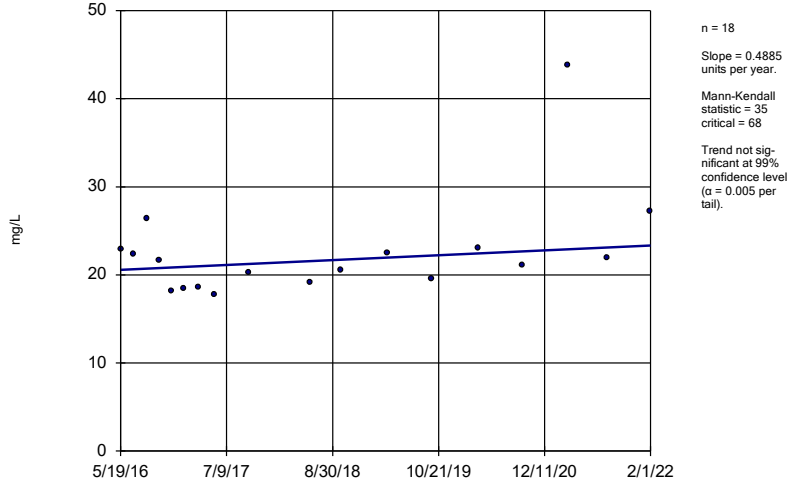
Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 18

Slope = 0.4885 units per year.

Mann-Kendall statistic = 35 critical = 68

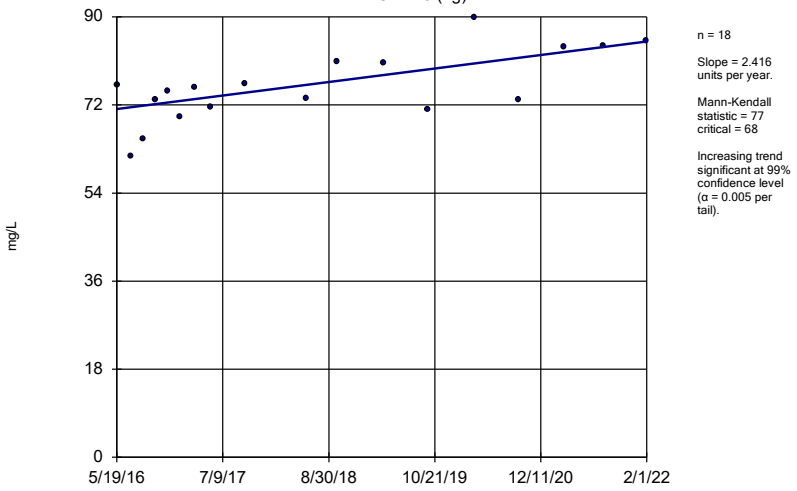
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-3 (bg)



n = 18

Slope = 2.416 units per year.

Mann-Kendall statistic = 77
critical = 68

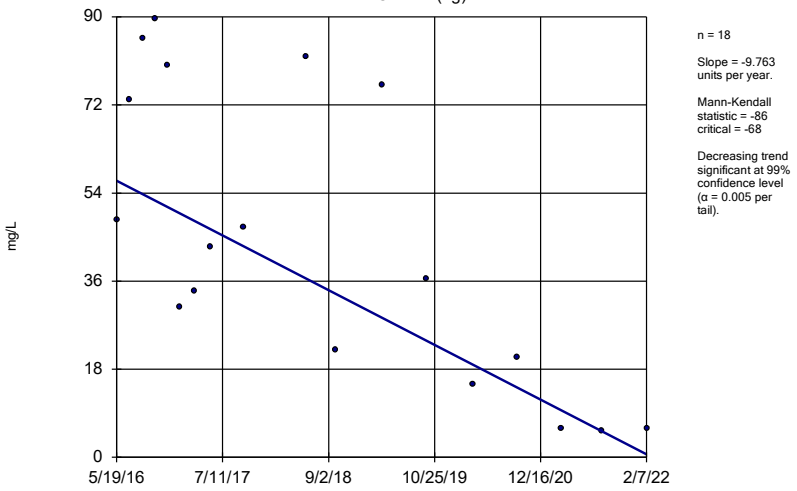
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-4 (bg)



n = 18

Slope = -9.763 units per year.

Mann-Kendall statistic = -86
critical = -68

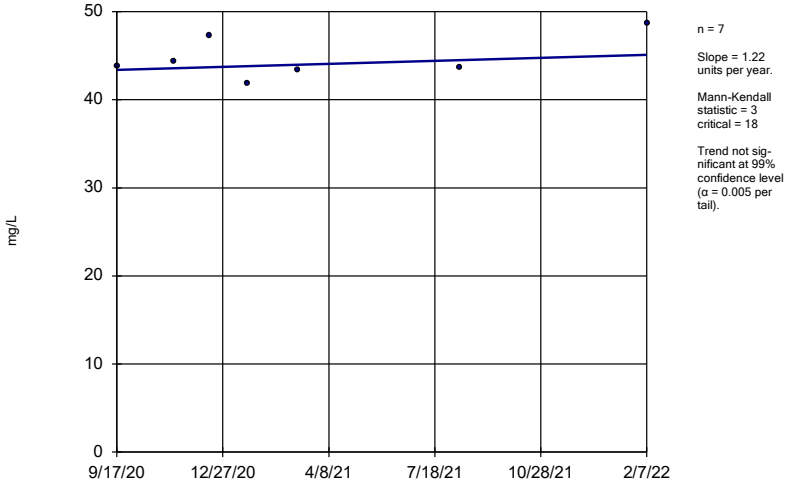
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-42D (bg)



n = 7

Slope = 1.22 units per year.

Mann-Kendall statistic = 3
critical = 18

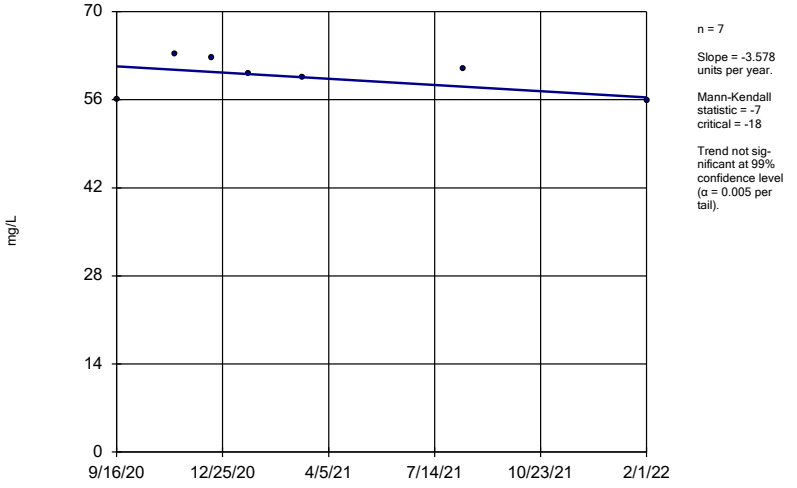
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 7

Slope = -3.578 units per year.

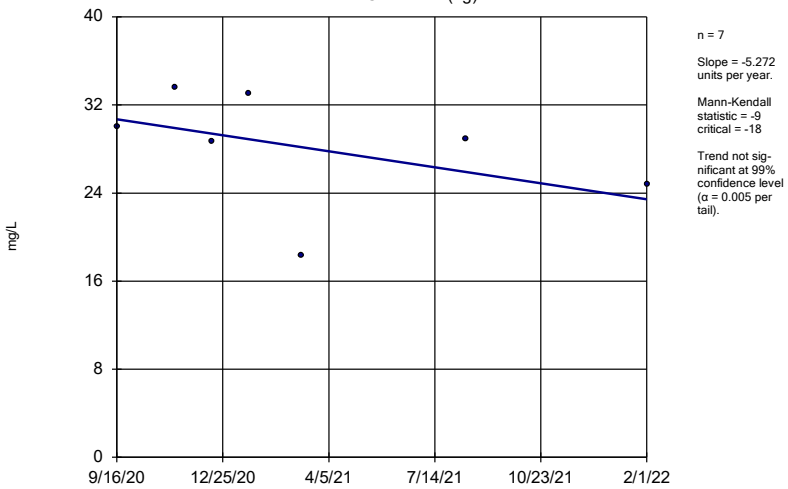
Mann-Kendall statistic = -7
critical = -18

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-44D (bg)



n = 7

Slope = -5.272 units per year.

Mann-Kendall statistic = -9 critical = -18

Trend not significant at 99% confidence level (α = 0.005 per tail).

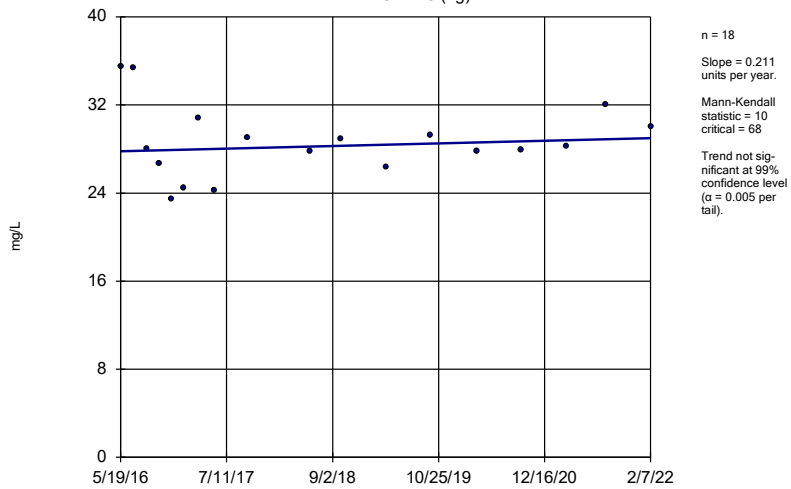
Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-5 (bg)



n = 18

Slope = 0.211 units per year.

Mann-Kendall statistic = 10 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

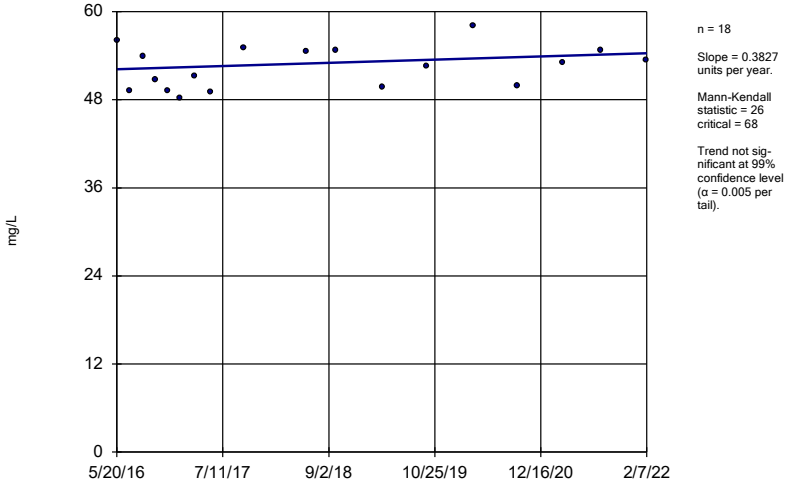
Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-6 (bg)



n = 18

Slope = 0.3827 units per year.

Mann-Kendall statistic = 26 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

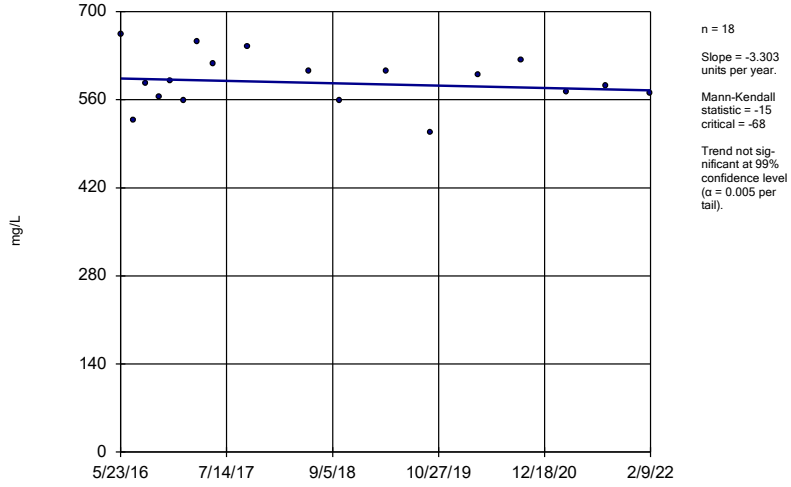
Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-14



n = 18

Slope = -3.303 units per year.

Mann-Kendall statistic = -15 critical = -68

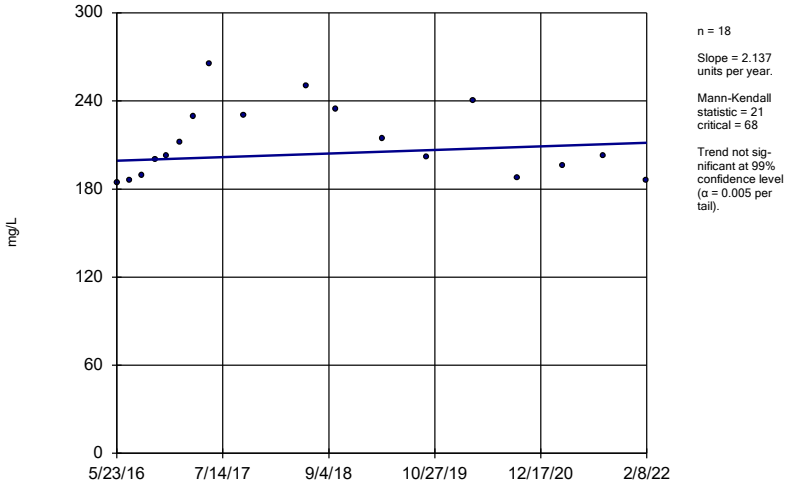
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWC-15



n = 18

Slope = 2.137 units per year.

Mann-Kendall statistic = 21 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

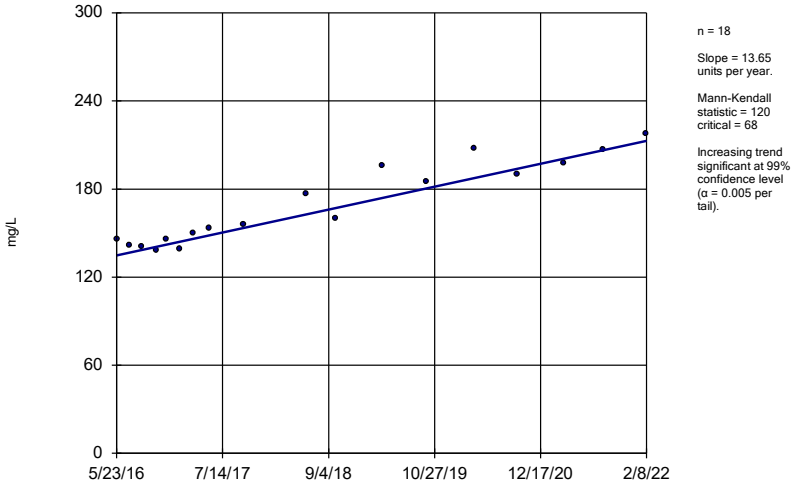
Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-16



n = 18

Slope = 13.65 units per year.

Mann-Kendall statistic = 120 critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

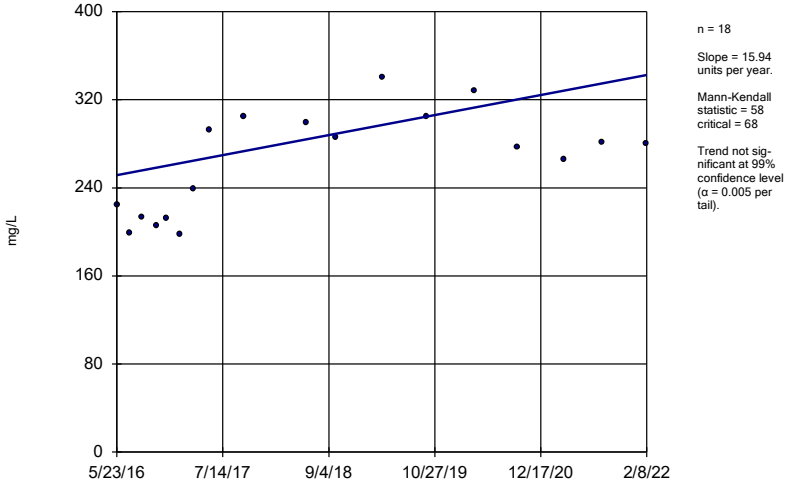
Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-17



n = 18

Slope = 15.94 units per year.

Mann-Kendall statistic = 58 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

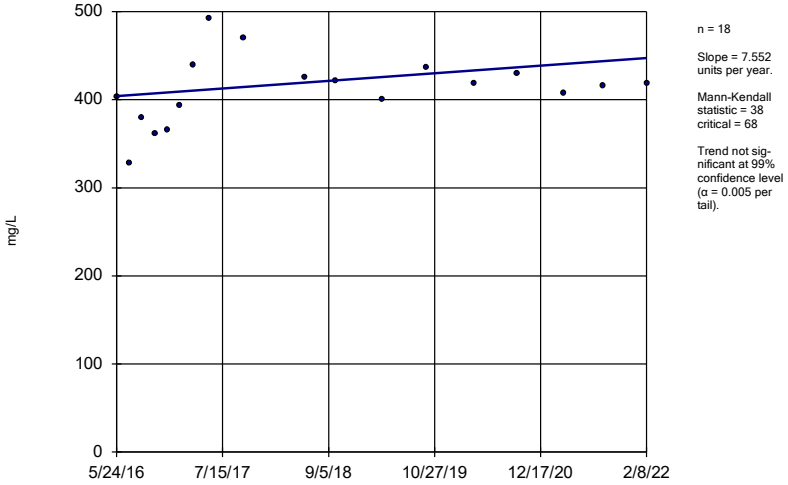
Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-18



n = 18

Slope = 7.552 units per year.

Mann-Kendall statistic = 38 critical = 68

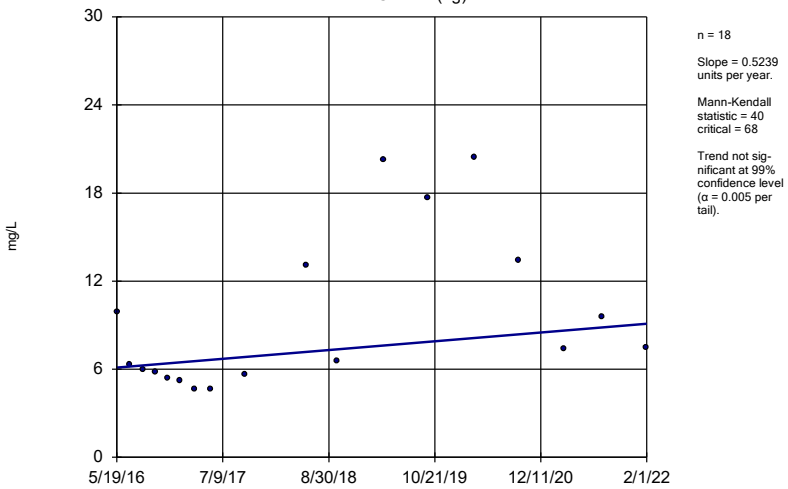
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-1 (bg)



n = 18

Slope = 0.5239 units per year.

Mann-Kendall statistic = 40 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

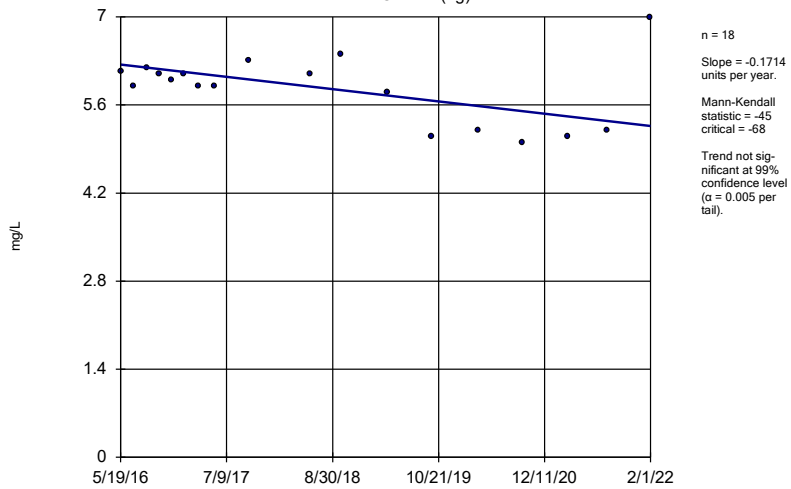
Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 18

Slope = -0.1714 units per year.

Mann-Kendall statistic = -45 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

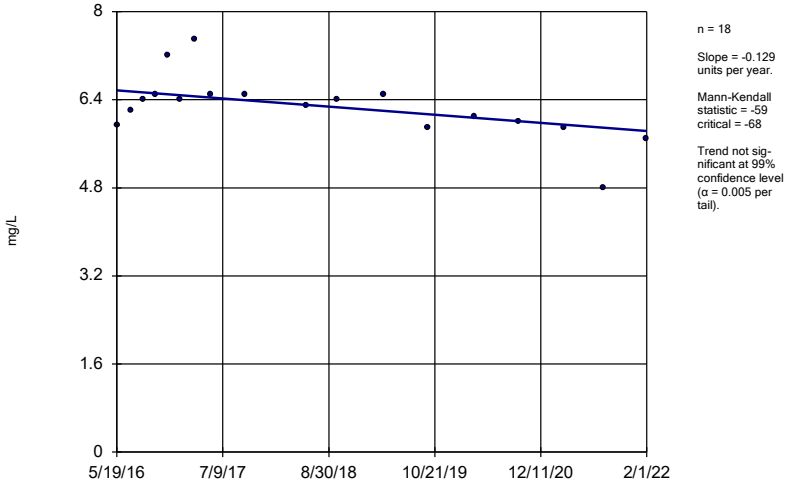
Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-3 (bg)



n = 18

Slope = -0.129 units per year.

Mann-Kendall statistic = -59 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

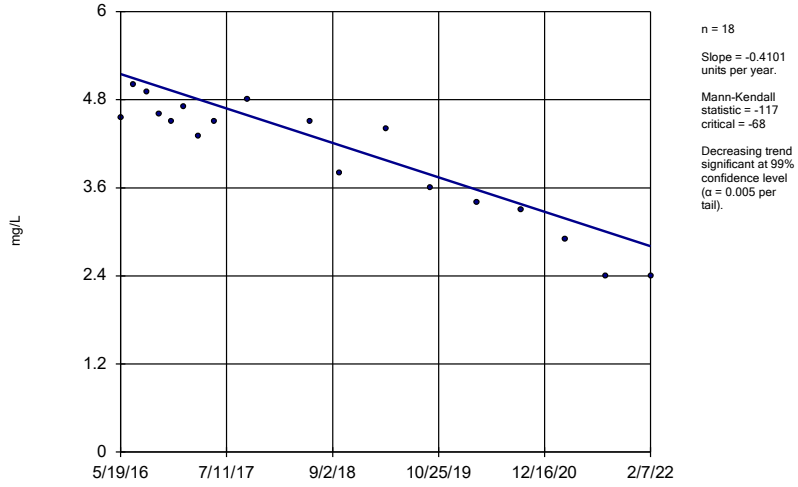
Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-4 (bg)



n = 18

Slope = -0.4101 units per year.

Mann-Kendall statistic = -117 critical = -68

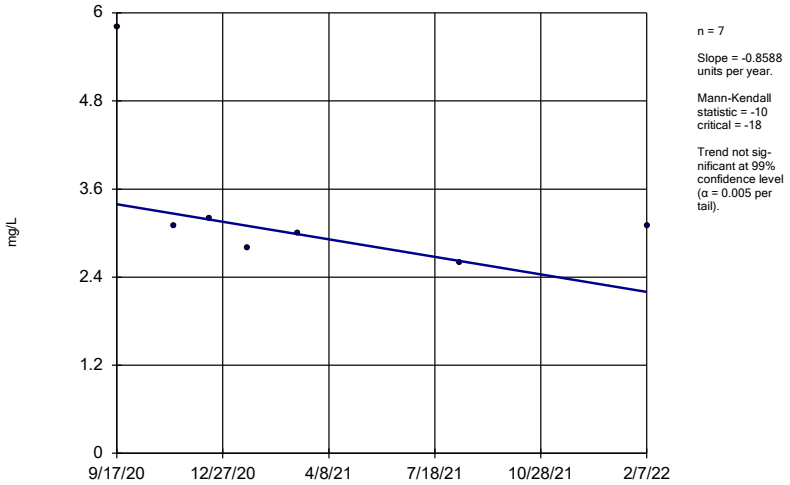
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-42D (bg)



n = 7

Slope = -0.8588 units per year.

Mann-Kendall statistic = -10
critical = -18

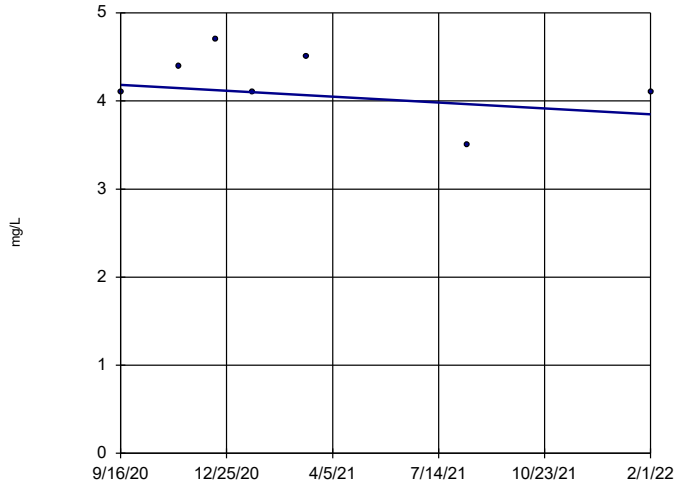
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 7

Slope = -0.2444 units per year.

Mann-Kendall statistic = -4
critical = -18

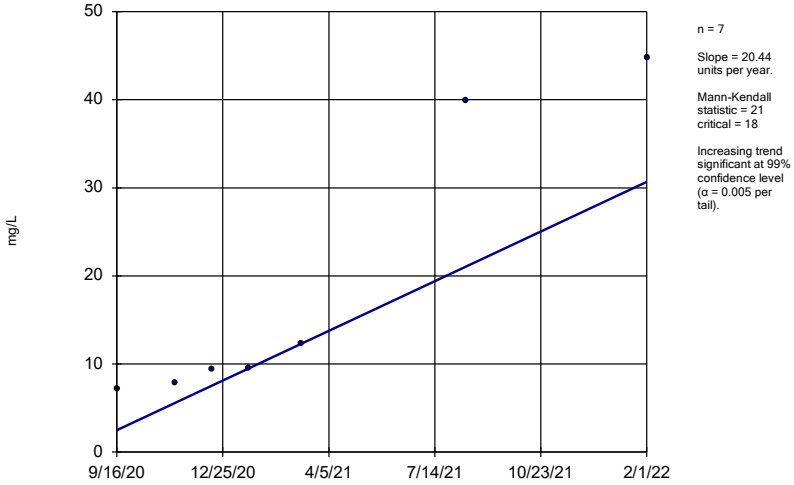
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-44D (bg)



n = 7

Slope = 20.44 units per year.

Mann-Kendall statistic = 21
critical = 18

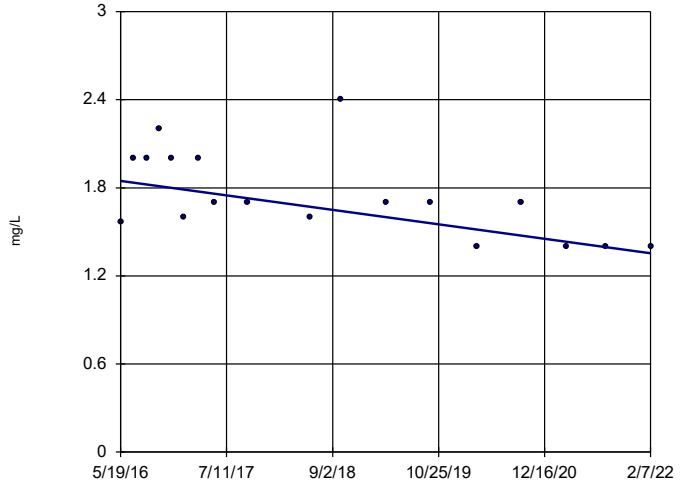
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-5 (bg)



n = 18

Slope = -0.08595 units per year.

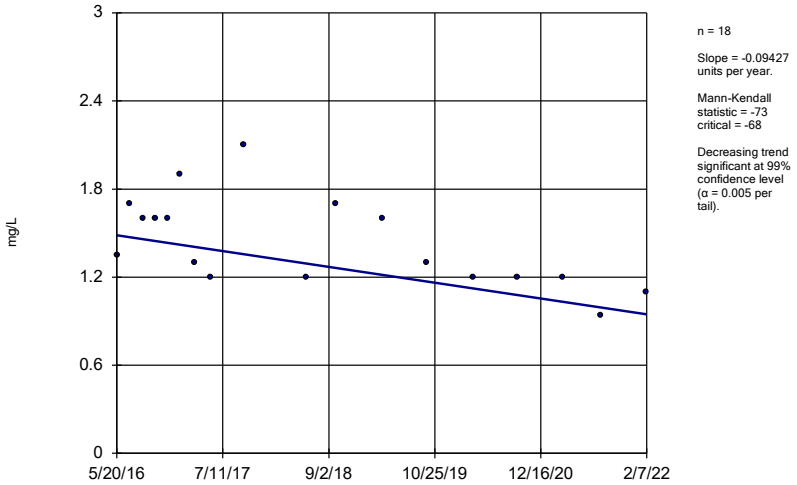
Mann-Kendall statistic = -62
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-6 (bg)



n = 18

Slope = -0.09427 units per year.

Mann-Kendall statistic = -73
critical = -68

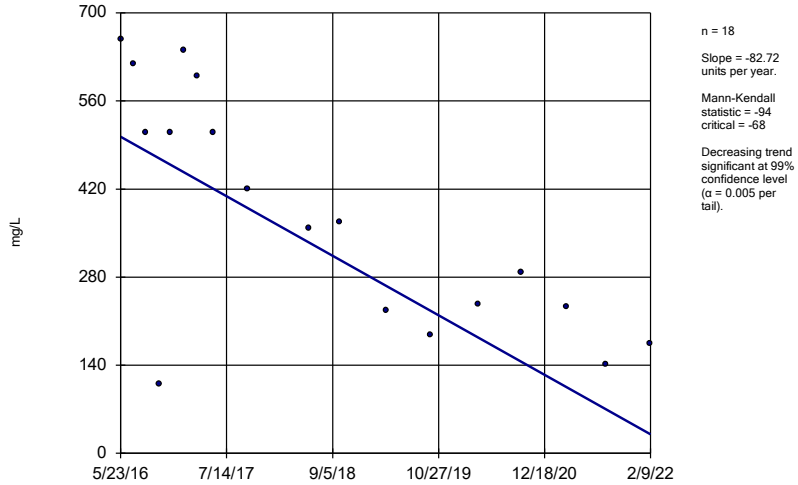
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-14



n = 18

Slope = -82.72 units per year.

Mann-Kendall statistic = -94
critical = -68

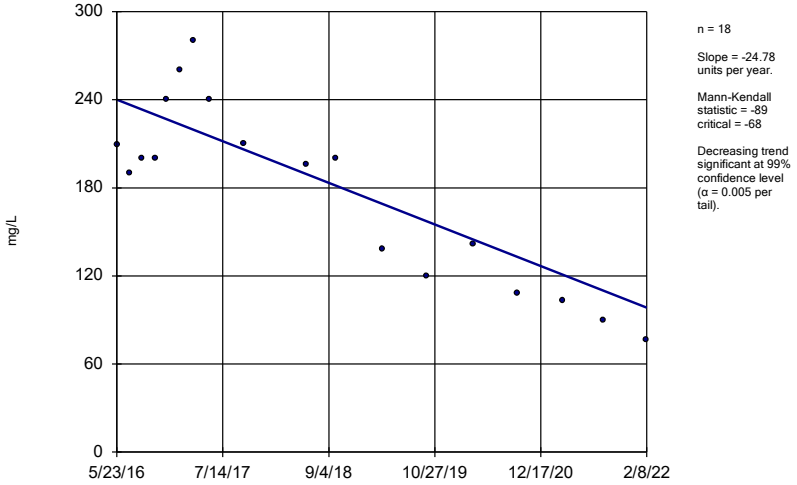
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-15



n = 18

Slope = -24.78 units per year.

Mann-Kendall statistic = -89
critical = -68

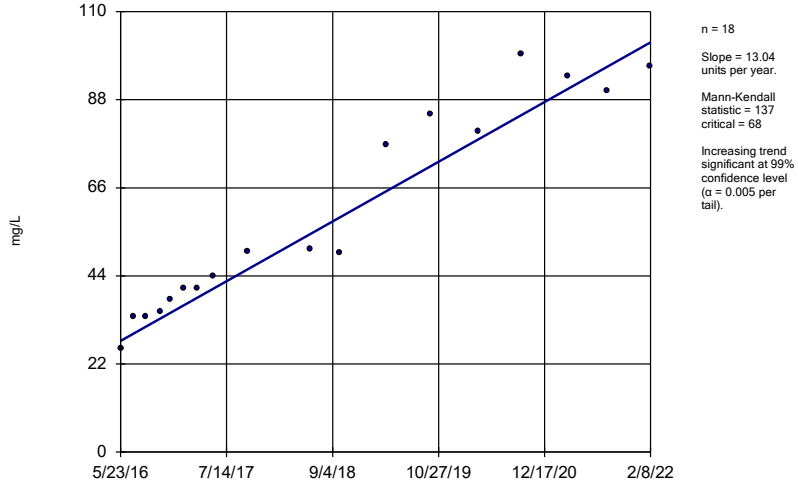
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-16



n = 18

Slope = 13.04 units per year.

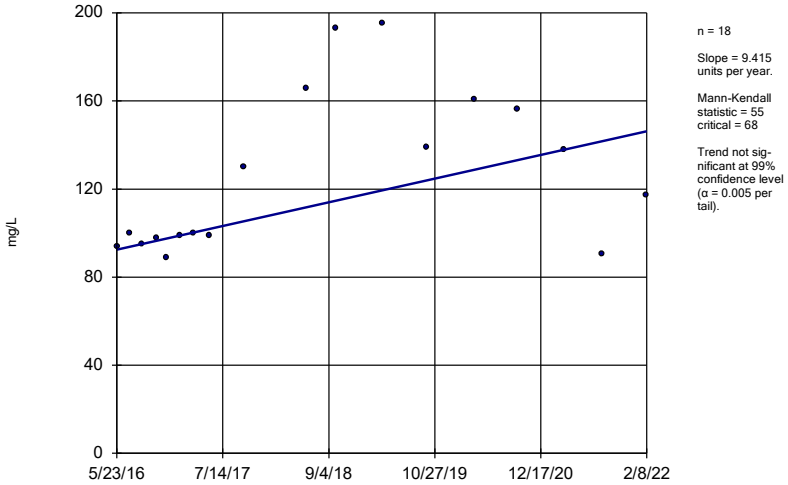
Mann-Kendall statistic = 137
critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWC-17



n = 18

Slope = 9.415 units per year.

Mann-Kendall statistic = 55 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

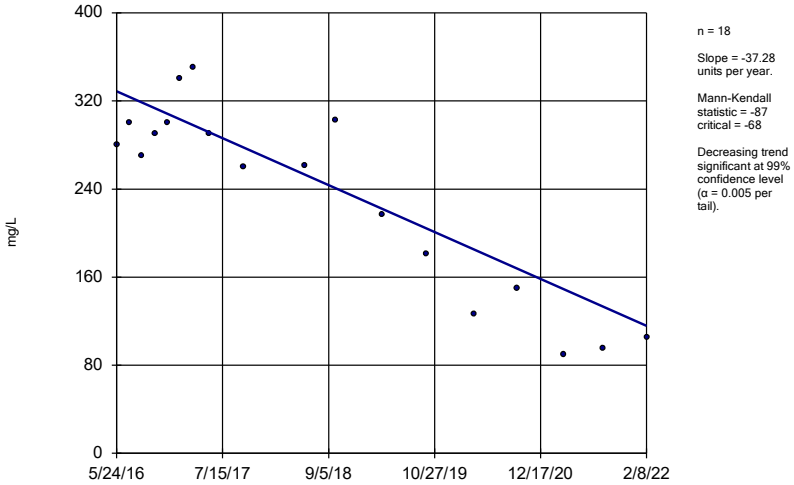
Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-18



n = 18

Slope = -37.28 units per year.

Mann-Kendall statistic = -87 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

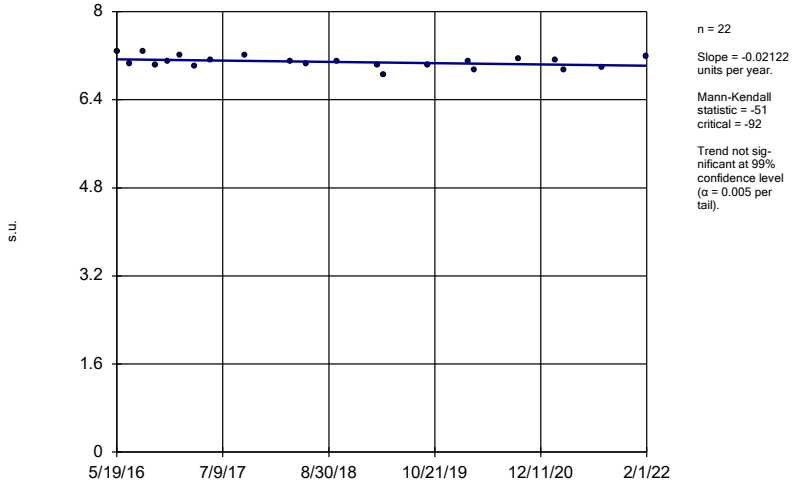
Constituent: Chloride Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 22

Slope = -0.02122 units per year.

Mann-Kendall statistic = -51 critical = -92

Trend not significant at 99% confidence level (α = 0.005 per tail).

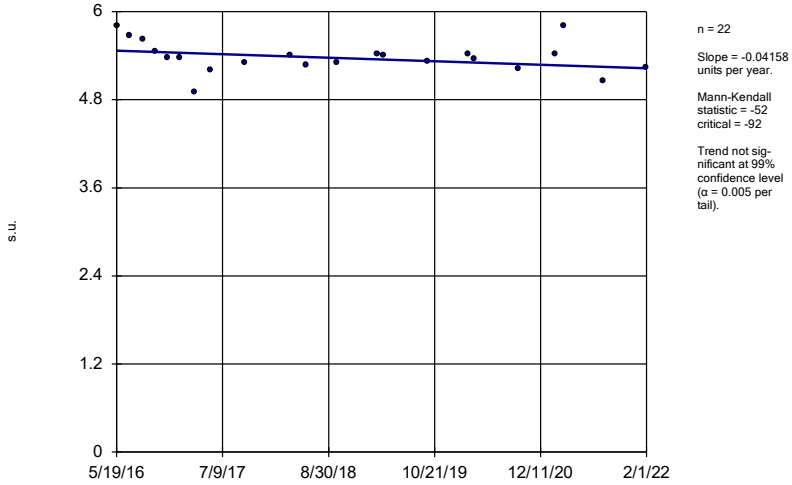
Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 22

Slope = -0.04158 units per year.

Mann-Kendall statistic = -52 critical = -92

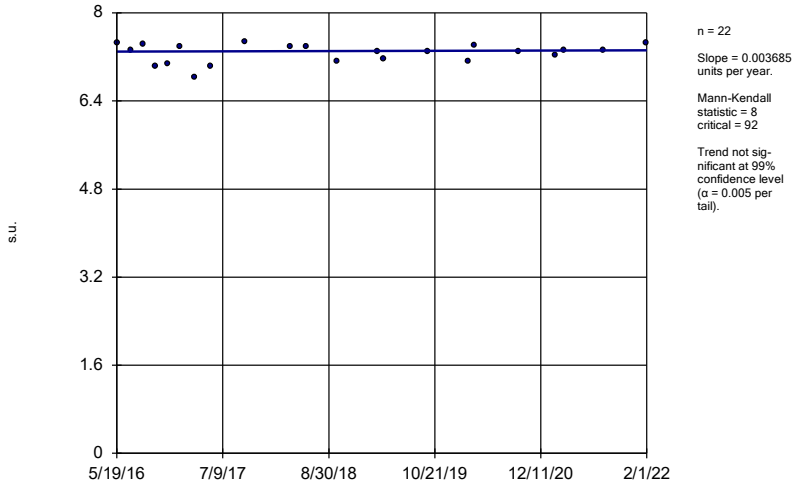
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-3 (bg)



n = 22

Slope = 0.003685 units per year.

Mann-Kendall statistic = 8
critical = 92

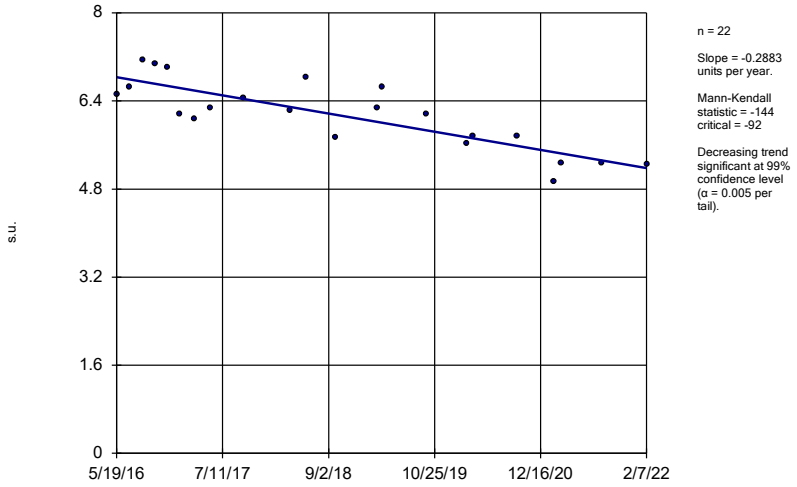
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-4 (bg)



n = 22

Slope = -0.2883 units per year.

Mann-Kendall statistic = -144
critical = -92

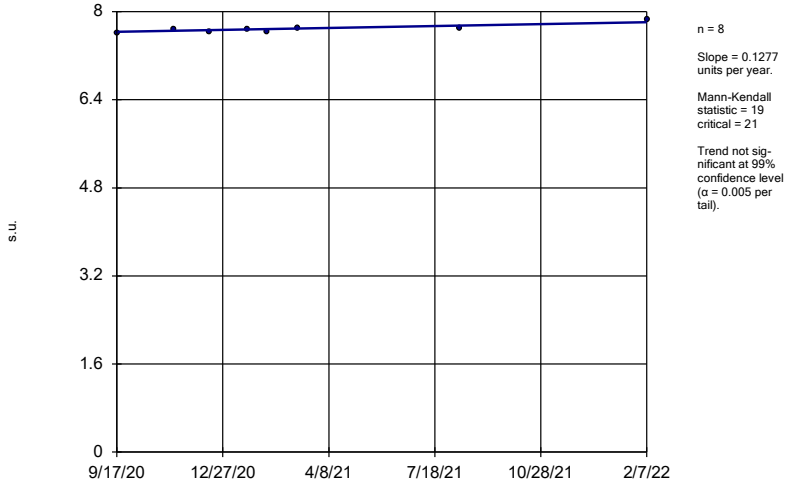
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-42D (bg)



n = 8

Slope = 0.1277 units per year.

Mann-Kendall statistic = 19
critical = 21

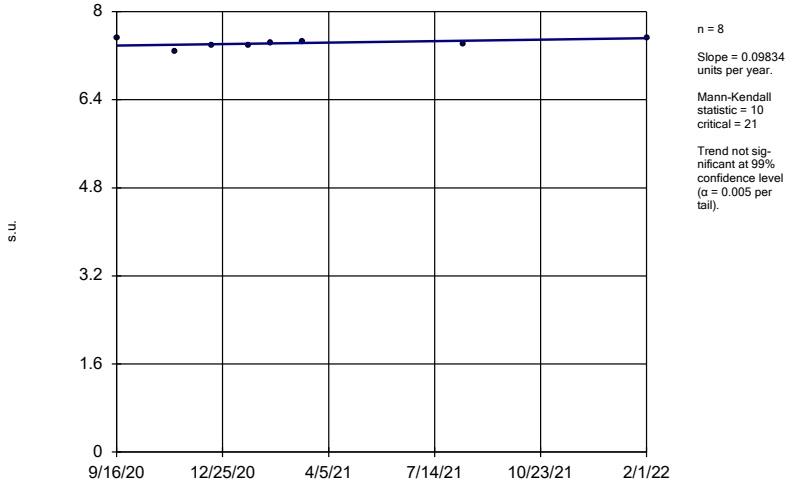
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 8

Slope = 0.09834 units per year.

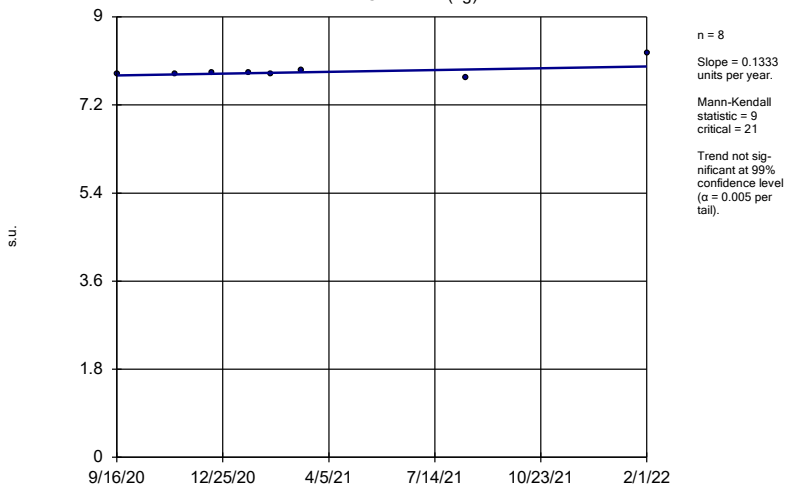
Mann-Kendall statistic = 10
critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-44D (bg)



n = 8

Slope = 0.1333 units per year.

Mann-Kendall statistic = 9
critical = 21

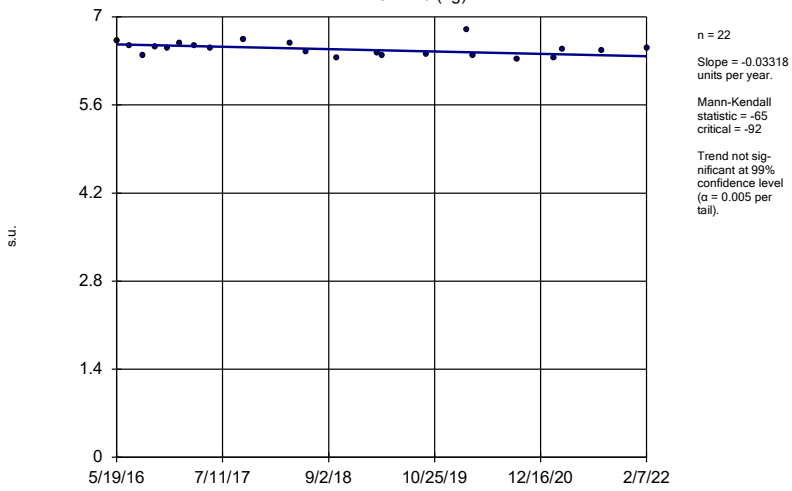
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-5 (bg)



n = 22

Slope = -0.03318 units per year.

Mann-Kendall statistic = -65
critical = -92

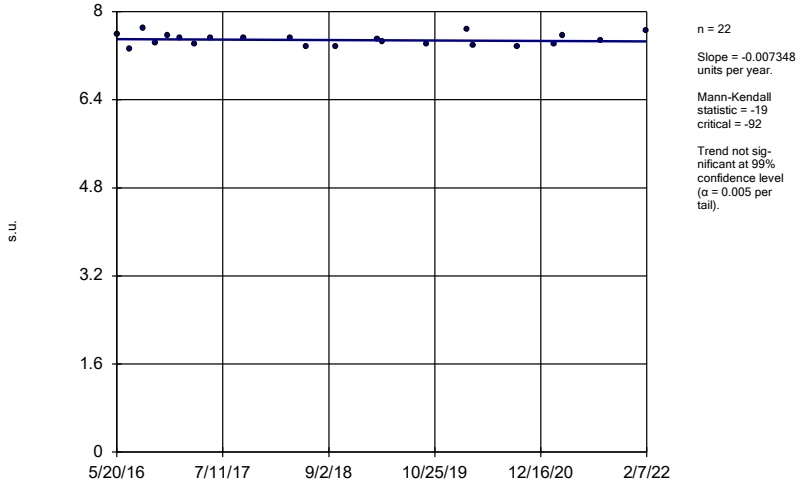
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-6 (bg)



n = 22

Slope = -0.007348 units per year.

Mann-Kendall statistic = -19
critical = -92

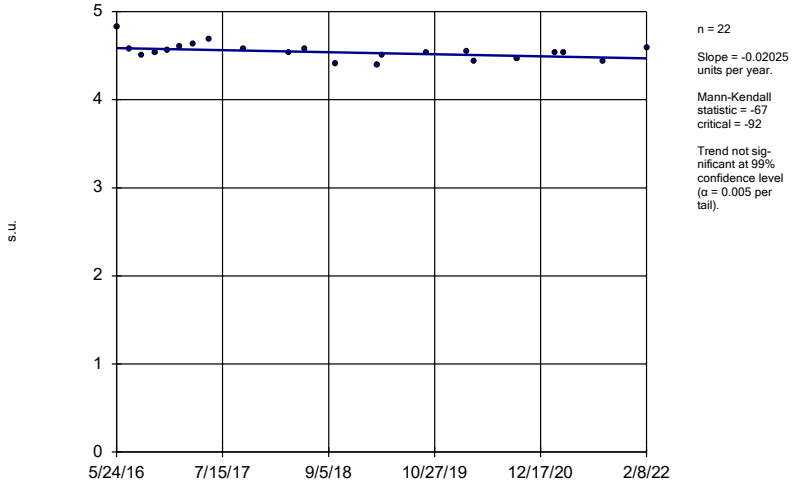
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-18



n = 22

Slope = -0.02025 units per year.

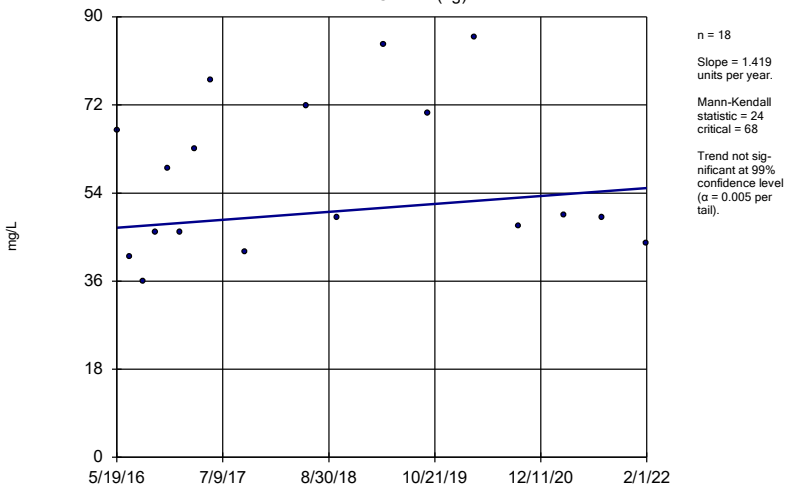
Mann-Kendall statistic = -67
critical = -92

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Field pH Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-1 (bg)



n = 18

Slope = 1.419 units per year.

Mann-Kendall statistic = 24 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

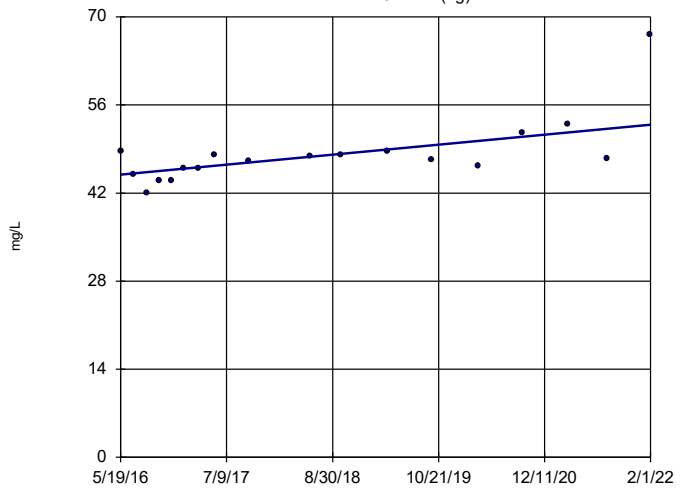
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 18

Slope = 1.393 units per year.

Mann-Kendall statistic = 83 critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

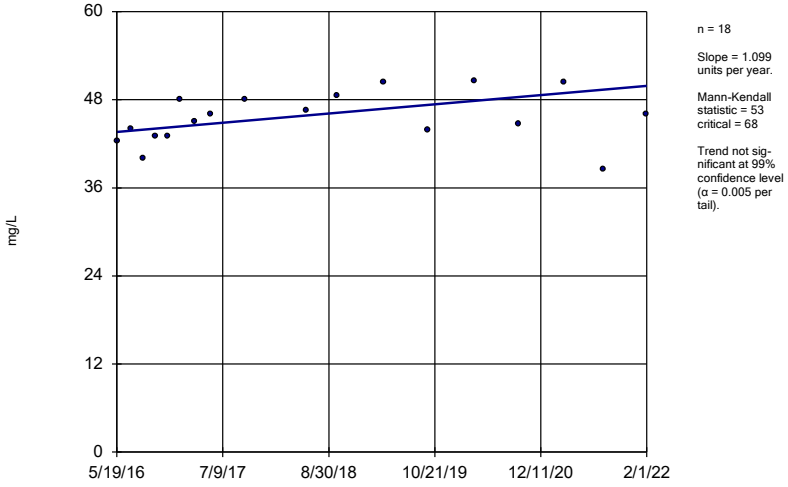
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-3 (bg)



n = 18

Slope = 1.099 units per year.

Mann-Kendall statistic = 53 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

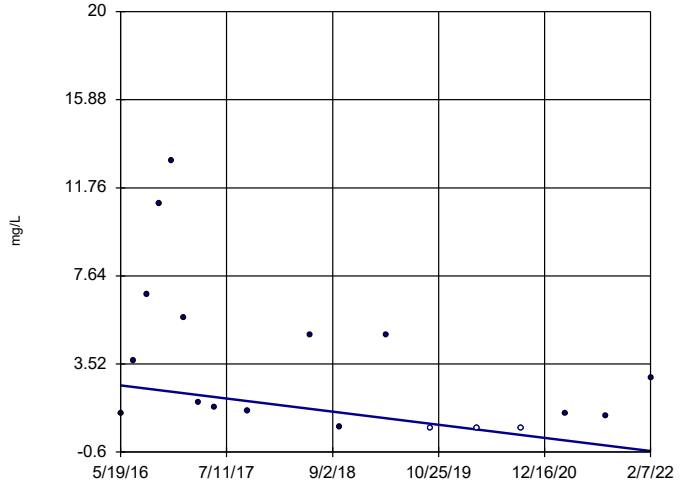
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-4 (bg)



n = 18

Slope = -0.5358 units per year.

Mann-Kendall statistic = -61 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

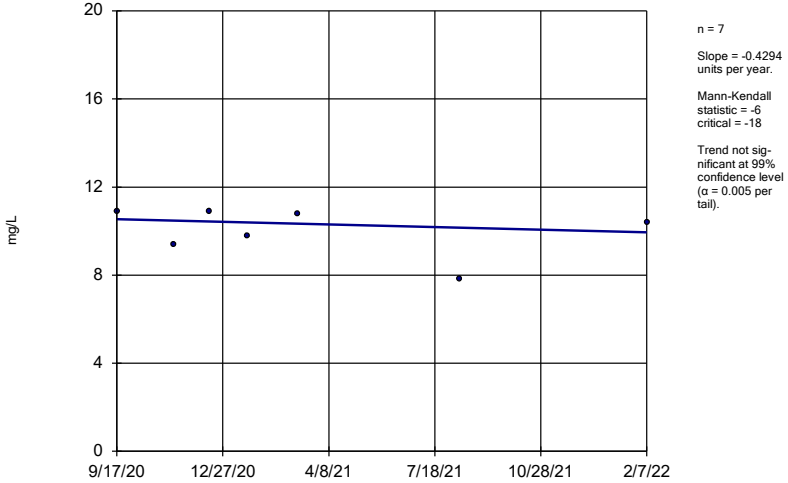
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-42D (bg)



n = 7

Slope = -0.4294 units per year.

Mann-Kendall statistic = -6 critical = -18

Trend not significant at 99% confidence level (α = 0.005 per tail).

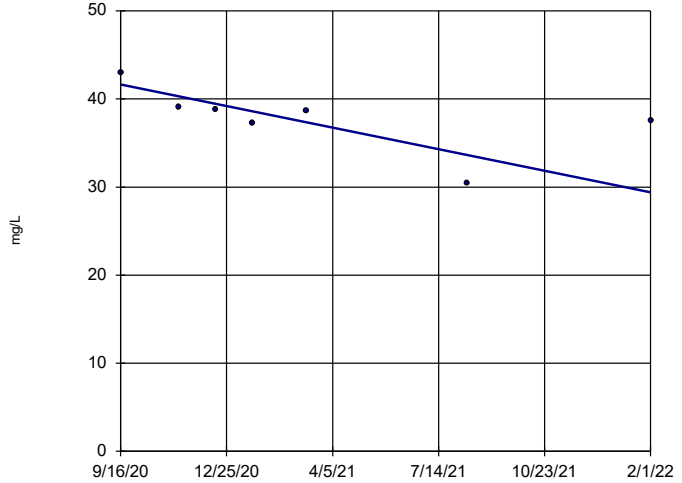
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 7

Slope = -8.864 units per year.

Mann-Kendall statistic = -15 critical = -18

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

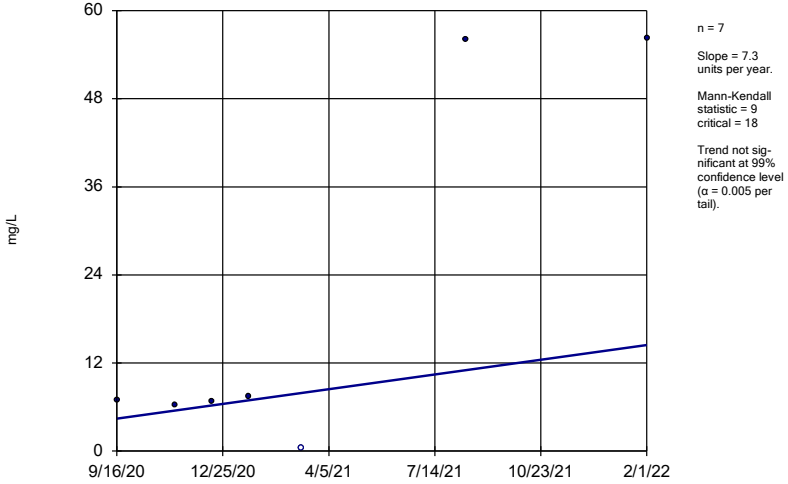
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-44D (bg)



n = 7

Slope = 7.3 units per year.

Mann-Kendall statistic = 9 critical = 18

Trend not significant at 99% confidence level (α = 0.005 per tail).

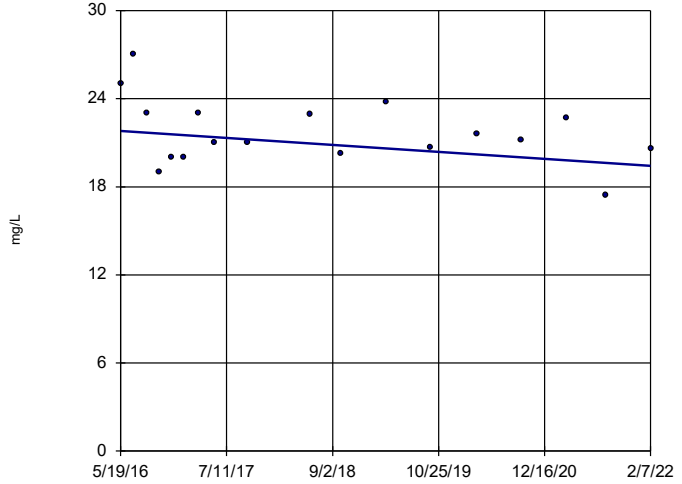
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-5 (bg)



n = 18

Slope = -0.4179 units per year.

Mann-Kendall statistic = -28 critical = -68

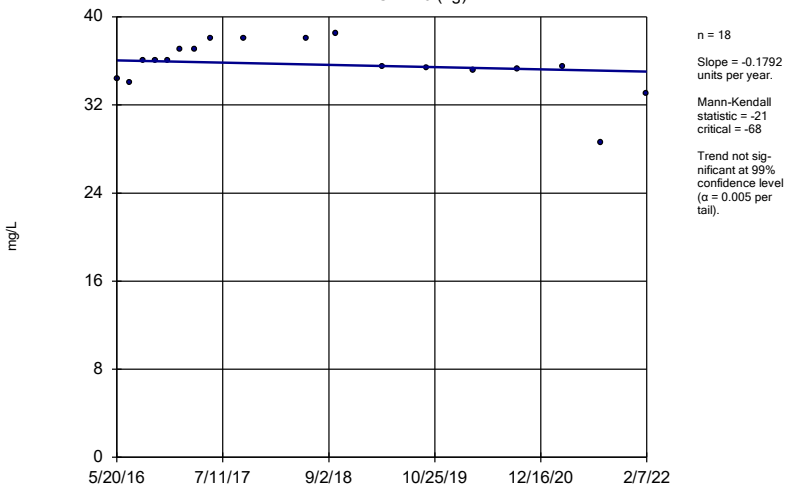
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-6 (bg)



n = 18

Slope = -0.1792 units per year.

Mann-Kendall statistic = -21 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

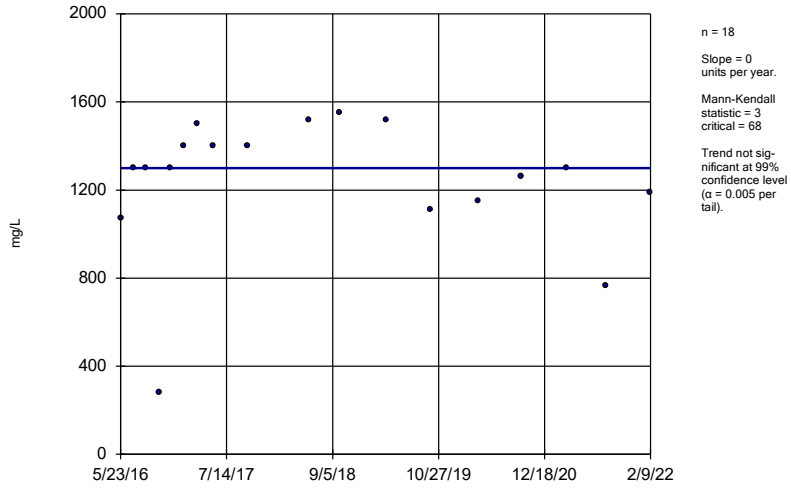
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-14



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 3 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

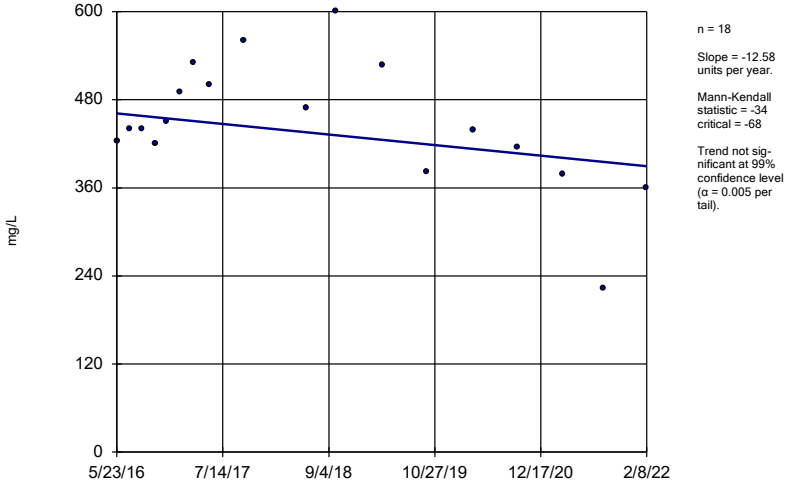
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-15



n = 18

Slope = -12.58 units per year.

Mann-Kendall statistic = -34 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

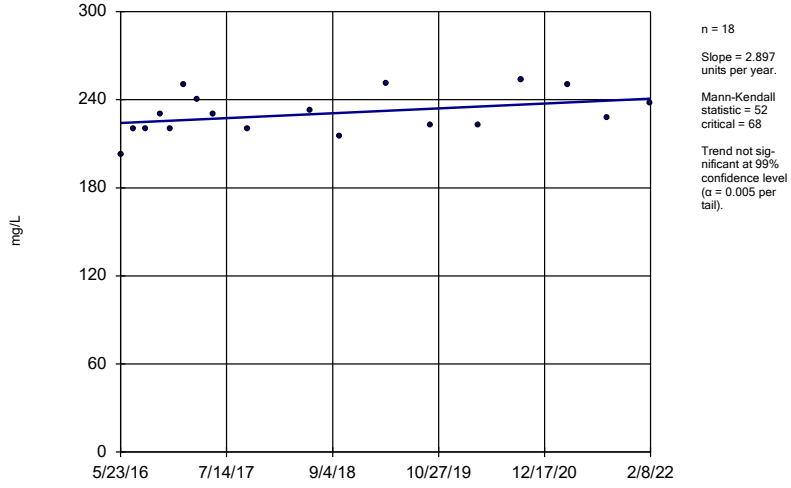
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-16



n = 18

Slope = 2.897 units per year.

Mann-Kendall statistic = 52 critical = 68

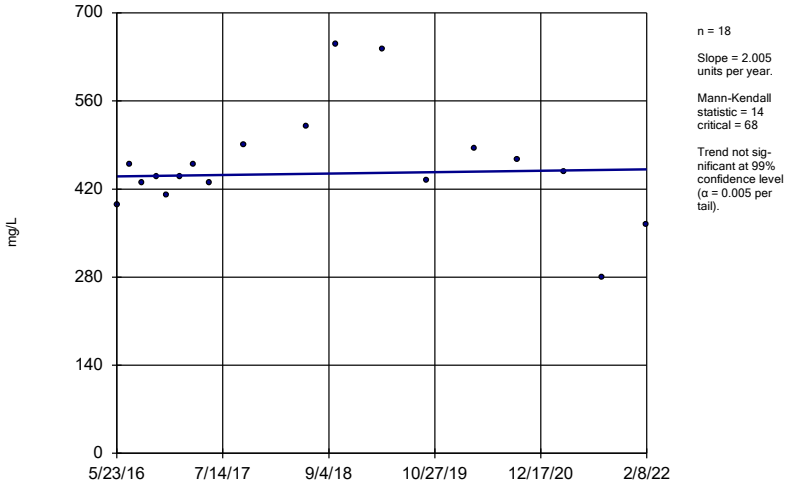
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWC-17



n = 18

Slope = 2.005 units per year.

Mann-Kendall statistic = 14 critical = 68

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

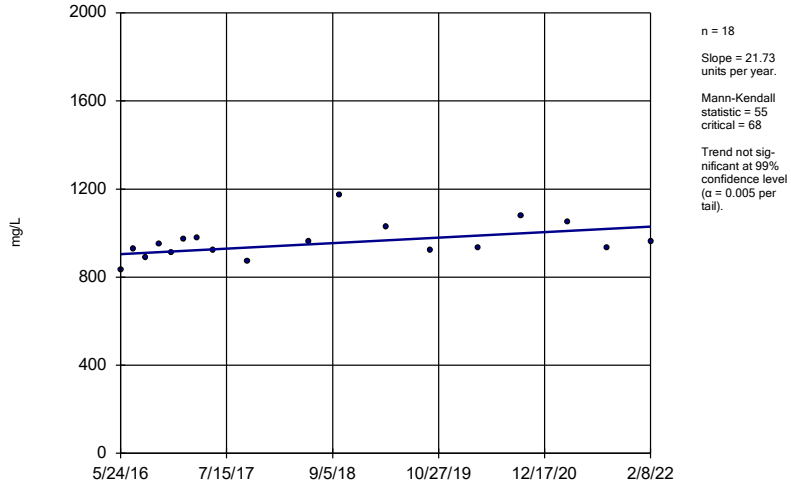
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-18



n = 18

Slope = 21.73 units per year.

Mann-Kendall statistic = 55 critical = 68

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

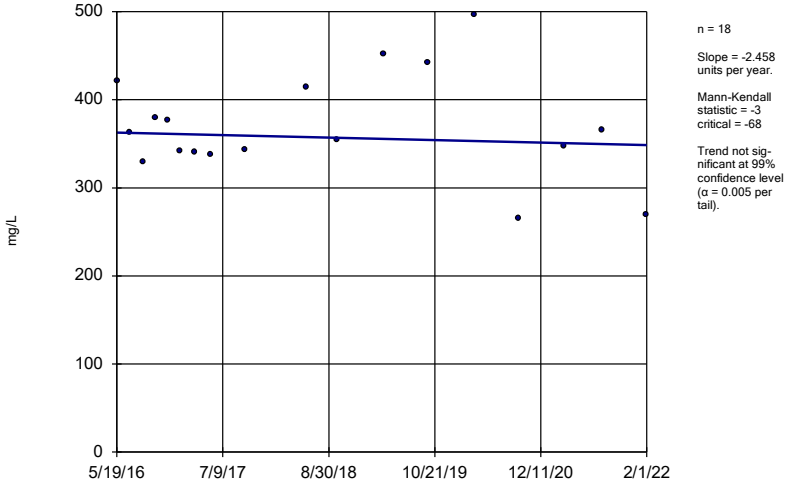
Constituent: Sulfate Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 18

Slope = -2.458 units per year.

Mann-Kendall statistic = -3 critical = -68

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

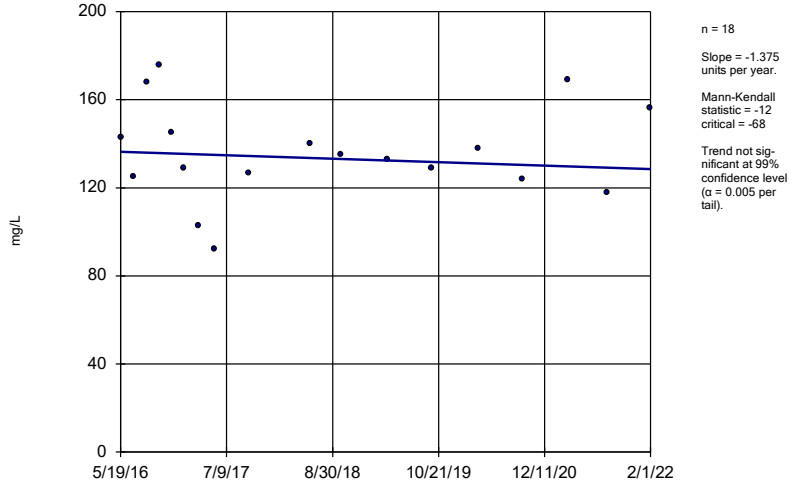
Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 18

Slope = -1.375 units per year.

Mann-Kendall statistic = -12 critical = -68

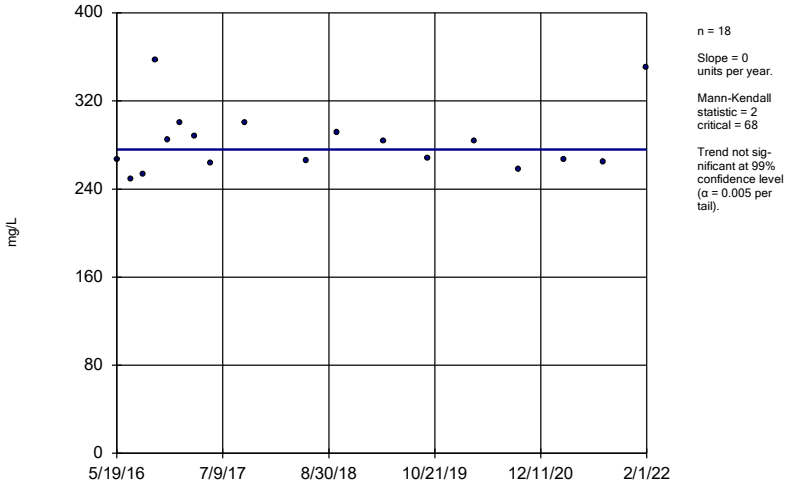
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-3 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 2 critical = 68

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

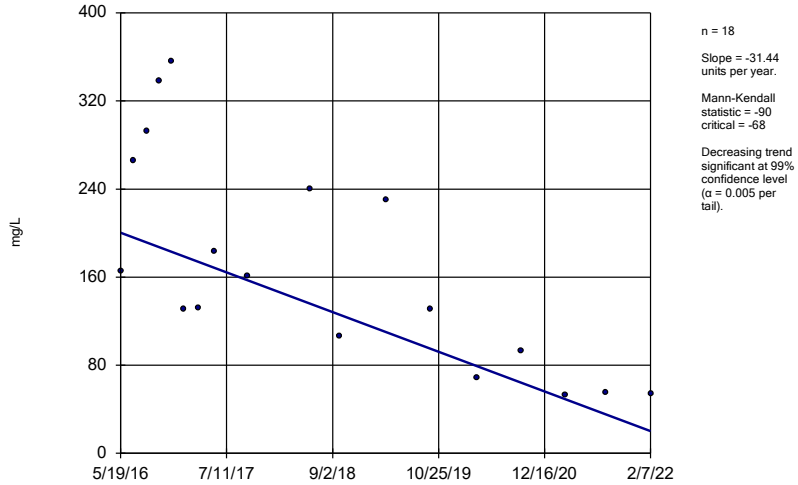
Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-4 (bg)



n = 18

Slope = -31.44 units per year.

Mann-Kendall statistic = -90 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

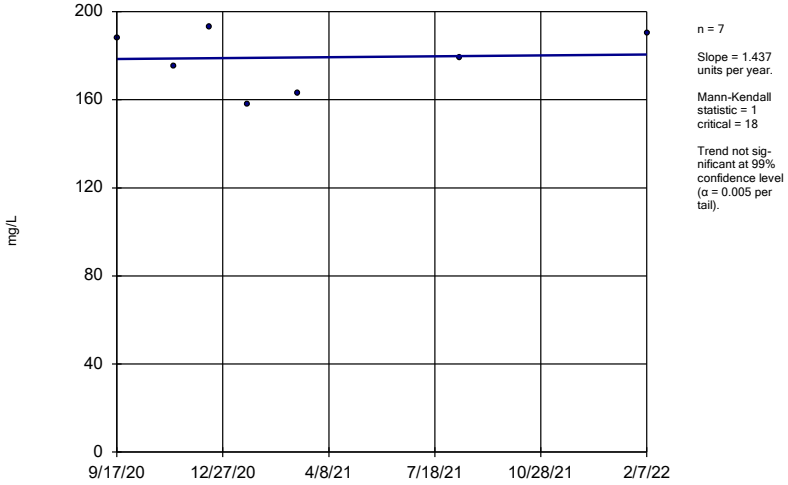
Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-42D (bg)



n = 7

Slope = 1.437 units per year.

Mann-Kendall statistic = 1 critical = 18

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

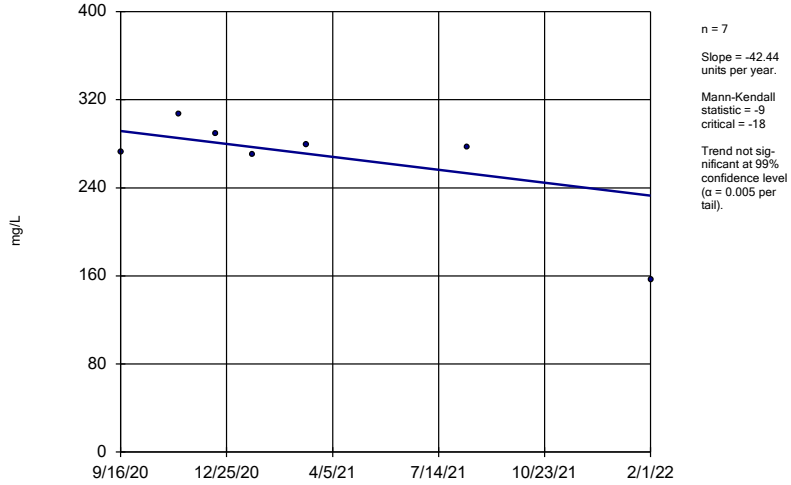
Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 7

Slope = -42.44 units per year.

Mann-Kendall statistic = -9 critical = -18

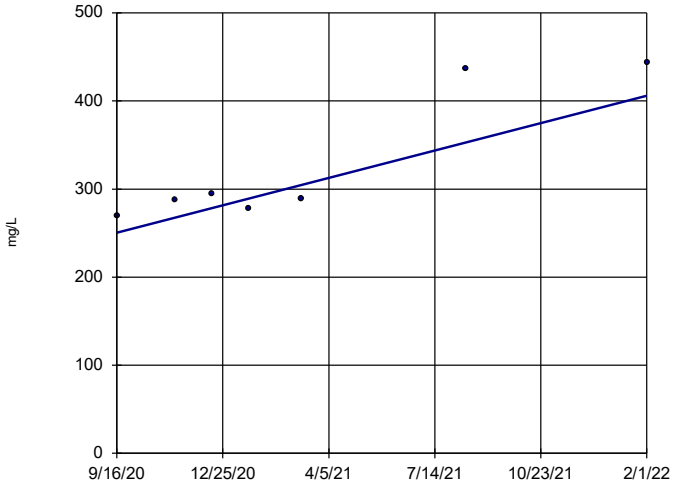
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWA-44D (bg)



n = 7

Slope = 112.8 units per year.

Mann-Kendall statistic = 15 critical = 18

Trend not significant at 99% confidence level (α = 0.005 per tail).

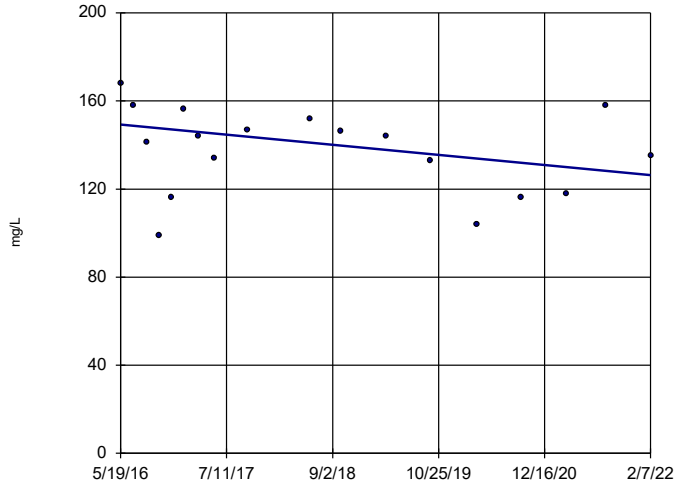
Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-5 (bg)



n = 18

Slope = -4.011 units per year.

Mann-Kendall statistic = -32 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

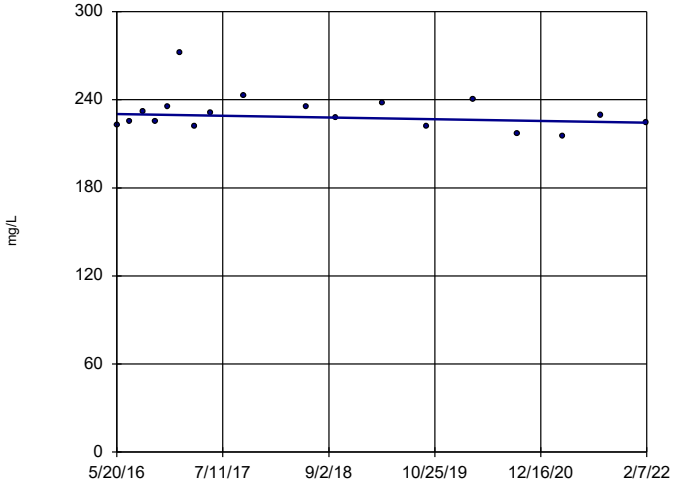
Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-6 (bg)



n = 18

Slope = -1.024 units per year.

Mann-Kendall statistic = -16 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

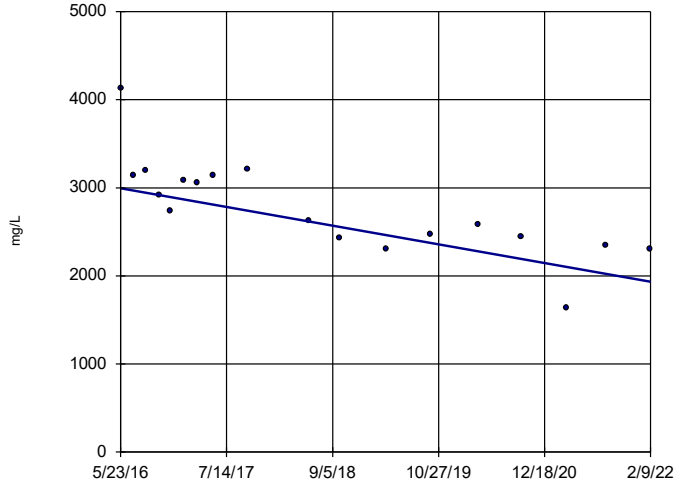
Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-14



n = 18

Slope = -185.6 units per year.

Mann-Kendall statistic = -99 critical = -68

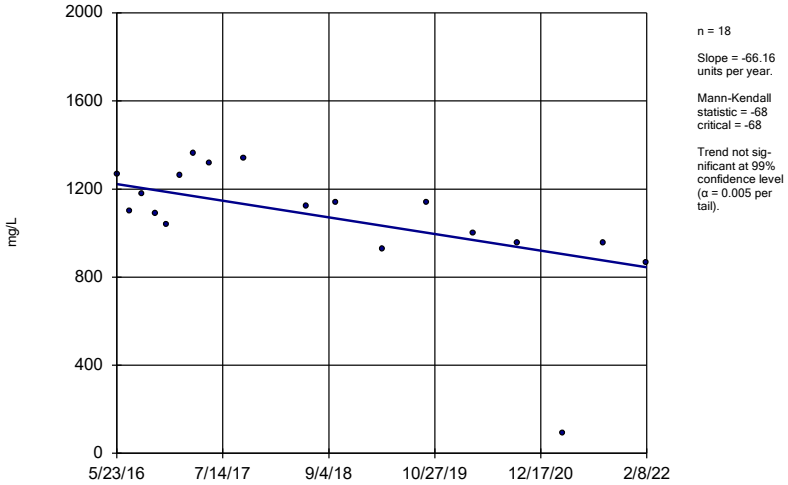
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sen's Slope Estimator

HGWC-15



n = 18

Slope = -66.16 units per year.

Mann-Kendall statistic = -68
critical = -68

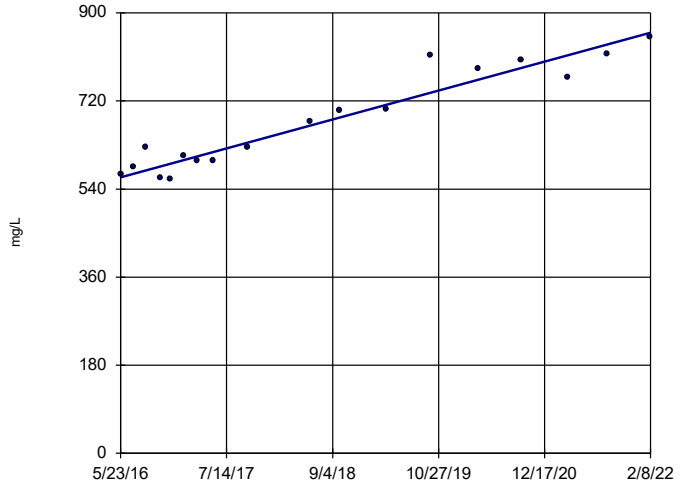
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-16



n = 18

Slope = 51.63 units per year.

Mann-Kendall statistic = 117
critical = 68

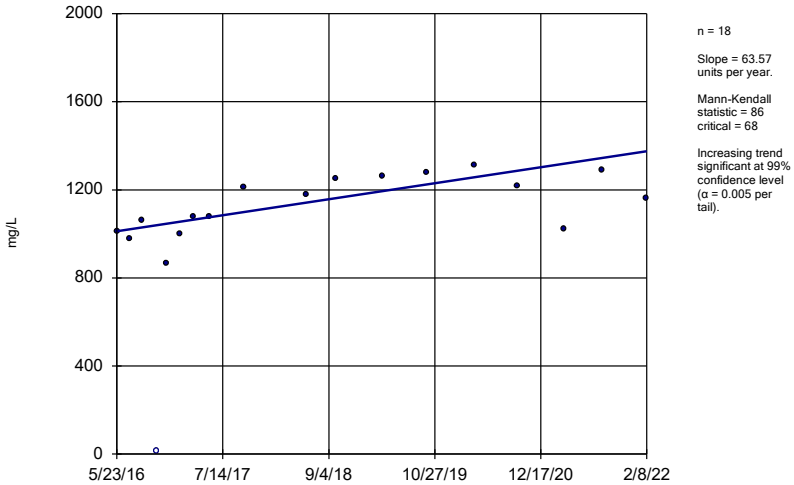
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWC-17



n = 18

Slope = 63.57 units per year.

Mann-Kendall statistic = 86
critical = 68

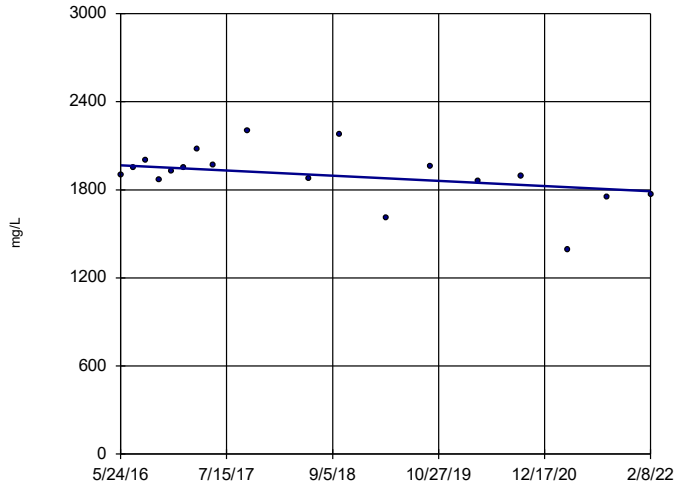
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-18



n = 18

Slope = -30.93 units per year.

Mann-Kendall statistic = -44
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 4/27/2022 6:07 PM View: Appendix III - Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

FIGURE F.

Upper Tolerance Limits Summary Table

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	117	n/a	n/a	80.34	n/a	n/a	0.002475	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	150	n/a	n/a	79.33	n/a	n/a	0.0004556	NP Inter(NDs)
Barium (mg/L)	n/a	0.46	n/a	n/a	n/a	n/a	150	n/a	n/a	0	n/a	n/a	0.0004556	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	138	n/a	n/a	83.33	n/a	n/a	0.0008431	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	150	n/a	n/a	92.67	n/a	n/a	0.0004556	NP Inter(NDs)
Chromium (mg/L)	n/a	0.019	n/a	n/a	n/a	n/a	138	n/a	n/a	83.33	n/a	n/a	0.0008431	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.038	n/a	n/a	n/a	n/a	150	n/a	n/a	70	n/a	n/a	0.0004556	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.645	n/a	n/a	n/a	n/a	150	0.7613	0.279	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.96	n/a	n/a	n/a	n/a	156	n/a	n/a	34.62	n/a	n/a	0.0003349	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	138	n/a	n/a	71.74	n/a	n/a	0.0008431	NP Inter(NDs)
Lithium (mg/L)	n/a	0.048	n/a	n/a	n/a	n/a	150	n/a	n/a	18	n/a	n/a	0.0004556	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	96	n/a	n/a	91.67	n/a	n/a	0.007269	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	138	n/a	n/a	84.78	n/a	n/a	0.0008431	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	150	n/a	n/a	98.67	n/a	n/a	0.0004556	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	150	n/a	n/a	98.67	n/a	n/a	0.0004556	NP Inter(NDs)

FIGURE G.

PLANT HAMMOND AP-2 GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.46	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0019	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.038	0.038
Combined Radium, Total (pCi/L)	5		1.65	5
Fluoride, Total (mg/L)	4		0.96	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.048	0.048
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indidcates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Statard*

FIGURE H.

Confidence Intervals - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	**HGWC-18**	**0.187**	**0.1605**	**0.038**	**Yes**	**21**	**0.1738**	**0.02406**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-33**	**0.05716**	**0.04884**	**0.038**	**Yes**	**8**	**0.053**	**0.003928**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-35**	**0.09914**	**0.08253**	**0.038**	**Yes**	**6**	**0.09083**	**0.006047**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-14	0.003	0.00043	0.006	No	15	0.002649	0.0009275	86.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-15	0.003	0.002	0.006	No	15	0.002933	0.0002582	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-18	0.003	0.0008	0.006	No	15	0.002853	0.000568	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MW-22	0.003	0.0016	0.006	No	6	0.002767	0.0005715	83.33	None	No	0.0155	NP (NDs)
Antimony (mg/L)	MW-33	0.003	0.00046	0.006	No	4	0.002365	0.00127	75	None	No	0.0625	NP (NDs)
Antimony (mg/L)	MW-35	0.003	0.00041	0.006	No	4	0.002328	0.001279	50	None	No	0.0625	NP (normality)
Antimony (mg/L)	MW-37D	0.003	0.00079	0.006	No	4	0.002448	0.001105	75	None	No	0.0625	NP (NDs)
Arsenic (mg/L)	HGWC-14	0.005929	0.004126	0.01	No	21	0.005028	0.001634	14.29	None	No	0.01	Param.
Arsenic (mg/L)	HGWC-15	0.005	0.0008	0.01	No	21	0.00435	0.001636	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-16	0.005	0.0012	0.01	No	21	0.004186	0.001732	80.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-17	0.005	0.0012	0.01	No	21	0.00386	0.001856	71.43	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-18	0.006854	0.004826	0.01	No	21	0.00584	0.001838	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-21D	0.005	0.001	0.01	No	11	0.003863	0.001965	72.73	None	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-22	0.005	0.005	0.01	No	10	0.004545	0.001439	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-23D	0.005	0.001	0.01	No	10	0.004182	0.001725	80	None	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-33	0.0078	0.004057	0.01	No	7	0.005929	0.001576	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-34D	0.007178	-0.001178	0.01	No	4	0.003	0.00184	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-35	0.006646	0.003688	0.01	No	6	0.0054	0.001018	16.67	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MW-37D	0.002705	0.0009647	0.01	No	6	0.003392	0.001821	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Barium (mg/L)	HGWC-14	0.0228	0.019	2	No	21	0.02429	0.01748	4.762	None	No	0.01	NP (normality)
Barium (mg/L)	HGWC-15	0.02752	0.01805	2	No	21	0.02279	0.008587	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-16	0.1118	0.1002	2	No	21	0.106	0.01056	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-17	0.02601	0.02326	2	No	21	0.02464	0.00249	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-18	0.0336	0.029	2	No	21	0.03325	0.01577	4.762	None	No	0.01	NP (normality)
Barium (mg/L)	MW-21D	0.07047	0.04299	2	No	11	0.05673	0.01649	0	None	No	0.01	Param.
Barium (mg/L)	MW-22	0.03312	0.01628	2	No	10	0.0247	0.00944	0	None	No	0.01	Param.
Barium (mg/L)	MW-23D	0.06847	0.05213	2	No	10	0.0603	0.009154	0	None	No	0.01	Param.
Barium (mg/L)	MW-33	0.02818	0.02154	2	No	7	0.02486	0.002795	0	None	No	0.01	Param.
Barium (mg/L)	MW-34D	0.04782	0.03068	2	No	4	0.03925	0.003775	0	None	No	0.01	Param.
Barium (mg/L)	MW-35	0.03155	0.02279	2	No	6	0.02717	0.003189	0	None	No	0.01	Param.
Barium (mg/L)	MW-37D	0.1762	0.09717	2	No	6	0.1367	0.02875	0	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-14	0.0005254	0.0004325	0.004	No	19	0.0004789	0.00007937	10.53	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-17	0.0005	0.000067	0.004	No	19	0.0004534	0.0001396	89.47	None	No	0.01	NP (NDs)
Beryllium (mg/L)	HGWC-18	0.003424	0.002783	0.004	No	19	0.003036	0.0007391	5.263	None	x^2	0.01	Param.
Beryllium (mg/L)	MW-22	0.0005	0.000062	0.004	No	10	0.000284	0.0002279	50	None	No	0.011	NP (normality)
Beryllium (mg/L)	MW-33	0.001095	0.0008846	0.004	No	7	0.00099	0.00008869	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-34D	0.000204	0.00001101	0.004	No	4	0.0003038	0.0002293	50	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	MW-35	0.000741	0.000339	0.004	No	6	0.00054	0.0001463	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-37D	0.0005	0.00012	0.004	No	6	0.0004367	0.0001551	83.33	None	No	0.0155	NP (NDs)
Cadmium (mg/L)	HGWC-14	0.0005	0.0001	0.005	No	21	0.0003032	0.0001944	47.62	None	No	0.01	NP (normality)
Cadmium (mg/L)	HGWC-15	0.002181	0.001494	0.005	No	21	0.001872	0.0006855	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	HGWC-17	0.0005	0.00007	0.005	No	21	0.0004795	0.00009383	95.24	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-18	0.002291	0.001648	0.005	No	21	0.00197	0.000583	4.762	None	No	0.01	Param.
Cadmium (mg/L)	MW-22	0.002134	0.001532	0.005	No	10	0.001726	0.0005707	0	None	x^4	0.01	Param.
Cadmium (mg/L)	MW-23D	0.0005615	0.0002617	0.005	No	10	0.000448	0.0001499	50	Kaplan-Meier	x^2	0.01	Param.
Cadmium (mg/L)	MW-33	0.0002151	0.000142	0.005	No	7	0.0001786	0.00003078	0	None	No	0.01	Param.
Cadmium (mg/L)	MW-34D	0.0008342	-0.0001292	0.005	No	4	0.0004875	0.0002006	50	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MW-35	0.002001	0.0006755	0.005	No	6	0.001338	0.0004825	0	None	No	0.01	Param.
Chromium (mg/L)	HGWC-14	0.005	0.00066	0.1	No	19	0.004531	0.001407	89.47	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-15	0.005	0.0012	0.1	No	19	0.004322	0.001616	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-16	0.005	0.0021	0.1	No	19	0.004379	0.001503	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-17	0.005	0.0018	0.1	No	19	0.004381	0.001485	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-18	0.005	0.00063	0.1	No	19	0.004291	0.001683	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-21D	0.005	0.00074	0.1	No	11	0.00421	0.001758	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	MW-22	0.005	0.00075	0.1	No	10	0.004115	0.001868	80	None	No	0.011	NP (NDs)

Confidence Intervals - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	MW-23D	0.005	0.00086	0.1	No	10	0.004169	0.001752	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	MW-33	0.005	0.00069	0.1	No	7	0.004384	0.001629	85.71	None	No	0.008	NP (NDs)
Chromium (mg/L)	MW-34D	0.0059	0.005	0.1	No	4	0.005225	0.00045	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	MW-35	0.005	0.00079	0.1	No	6	0.003603	0.002164	66.67	None	No	0.0155	NP (NDs)
Chromium (mg/L)	MW-37D	0.005	0.0014	0.1	No	6	0.004367	0.001456	66.67	None	No	0.0155	NP (NDs)
Cobalt (mg/L)	HGWC-14	0.03033	0.0244	0.038	No	21	0.02679	0.006468	4.762	None	x^2	0.01	Param.
Cobalt (mg/L)	HGWC-15	0.04475	0.02675	0.038	No	21	0.03575	0.01632	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-16	0.005	0.00037	0.038	No	21	0.004555	0.001406	90.48	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-17	0.01601	0.01342	0.038	No	21	0.01453	0.002742	0	None	x^2	0.01	Param.
Cobalt (mg/L)	**HGWC-18**	**0.187**	**0.1605**	**0.038**	**Yes**	**21**	**0.1738**	**0.02406**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-21D	0.005	0.005	0.038	No	11	0.004576	0.001405	90.91	None	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-22	0.03809	0.02491	0.038	No	10	0.0315	0.007382	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-23D	0.001172	0.000954	0.038	No	10	0.001063	0.0001222	0	None	No	0.01	Param.
Cobalt (mg/L)	**MW-33**	**0.05716**	**0.04884**	**0.038**	**Yes**	**8**	**0.053**	**0.003928**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-34D	0.01376	0.002438	0.038	No	4	0.0081	0.002494	0	None	No	0.01	Param.
Cobalt (mg/L)	**MW-35**	**0.09914**	**0.08253**	**0.038**	**Yes**	**6**	**0.09083**	**0.006047**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-37D	0.005	0.00048	0.038	No	6	0.003663	0.002096	66.67	None	No	0.0155	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	HGWC-14	1.595	1.083	5	No	21	1.339	0.4637	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-15	0.9002	0.4436	5	No	21	0.6719	0.4139	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-16	0.9616	0.5157	5	No	21	0.7387	0.4041	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-17	1.027	0.6789	5	No	21	0.853	0.3157	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-18	2.219	1.641	5	No	21	1.93	0.5232	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-21D	1.121	0.4539	5	No	11	0.799	0.4529	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-22	1.148	0.3216	5	No	10	0.7348	0.4631	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-23D	1.113	0.6168	5	No	10	0.865	0.2782	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-33	2.631	0.8717	5	No	7	1.751	0.7406	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-34D	1.755	-0.2986	5	No	4	0.7283	0.4523	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-35	3.35	0.3043	5	No	6	1.827	1.109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-37D	1.717	-0.009304	5	No	6	0.8538	0.6283	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-14	0.2023	0.07774	4	No	22	0.176	0.1573	22.73	Kaplan-Meier	x^(1/3)	0.01	Param.
Fluoride (mg/L)	HGWC-15	0.17	0.09	4	No	22	0.1415	0.1193	45.45	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-16	0.23	0.059	4	No	22	0.1567	0.1176	54.55	None	No	0.01	NP (NDs)
Fluoride (mg/L)	HGWC-17	0.16	0.062	4	No	22	0.1641	0.2105	31.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-18	0.6327	0.3991	4	No	22	0.5159	0.2175	4.545	None	No	0.01	Param.
Fluoride (mg/L)	MW-21D	0.1	0.1	4	No	11	0.1	4.5e-10	90.91	None	No	0.006	NP (NDs)
Fluoride (mg/L)	MW-22	0.13	0.1	4	No	10	0.121	0.05666	80	None	No	0.011	NP (NDs)
Fluoride (mg/L)	MW-23D	0.14	0.1	4	No	10	0.11	0.0216	80	None	No	0.011	NP (NDs)
Fluoride (mg/L)	MW-33	0.29	0.1315	4	No	8	0.2088	0.08951	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	MW-34D	0.09507	0.0376	4	No	4	0.07475	0.02106	25	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	MW-35	0.0912	0.0468	4	No	6	0.07417	0.02053	16.67	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	MW-37D	0.093	0.043	4	No	6	0.068	0.0182	0	None	No	0.01	Param.
Lead (mg/L)	HGWC-14	0.001704	0.001392	0.015	No	19	0.001548	0.0002664	5.263	None	No	0.01	Param.
Lead (mg/L)	HGWC-15	0.001	0.0002	0.015	No	19	0.0008118	0.0003753	73.68	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-16	0.001	0.000094	0.015	No	19	0.0005802	0.0004558	52.63	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-17	0.001	0.000088	0.015	No	19	0.0006213	0.0004568	57.89	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-18	0.001431	0.001157	0.015	No	19	0.001294	0.0002339	5.263	None	No	0.01	Param.
Lead (mg/L)	MW-21D	0.001	0.000048	0.015	No	11	0.0007116	0.000433	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-22	0.001	0.000094	0.015	No	10	0.000723	0.0004463	70	None	No	0.011	NP (NDs)
Lead (mg/L)	MW-23D	0.001	0.00016	0.015	No	10	0.0008211	0.000378	80	None	No	0.011	NP (NDs)
Lead (mg/L)	MW-33	0.001793	0.001514	0.015	No	7	0.001657	0.0001272	0	None	x^3	0.01	Param.
Lead (mg/L)	MW-34D	0.001	0.00087	0.015	No	4	0.0009675	0.000065	75	None	No	0.0625	NP (NDs)
Lead (mg/L)	MW-35	0.0009972	0.0001828	0.015	No	6	0.0007267	0.0003393	33.33	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	MW-37D	0.001254	-0.000294	0.015	No	6	0.000862	0.000564	50	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	HGWC-15	0.00947	0.002331	0.048	No	21	0.01029	0.009755	28.57	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	HGWC-16	0.0042	0.0029	0.048	No	21	0.004043	0.002602	4.762	None	No	0.01	NP (normality)

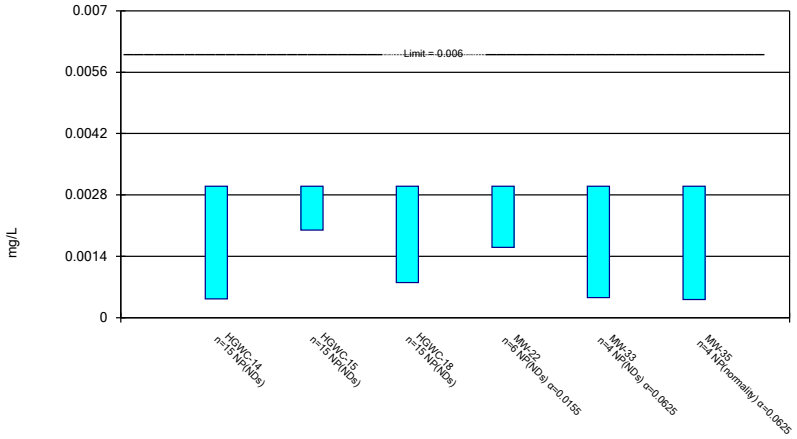
Confidence Intervals - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	HGWC-17	0.015	0.0011	0.048	No	21	0.007745	0.00709	47.62	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-18	0.01439	0.01219	0.048	No	21	0.01329	0.001993	0	None	No	0.01	Param.
Lithium (mg/L)	MW-21D	0.02521	0.02133	0.048	No	11	0.02327	0.002328	0	None	No	0.01	Param.
Lithium (mg/L)	MW-22	0.0015	0.0011	0.048	No	10	0.00131	0.0002726	0	None	No	0.011	NP (normality)
Lithium (mg/L)	MW-23D	0.002642	0.002158	0.048	No	10	0.0024	0.0002708	0	None	No	0.01	Param.
Lithium (mg/L)	MW-33	0.001162	0.0008952	0.048	No	7	0.001029	0.0001123	0	None	No	0.01	Param.
Lithium (mg/L)	MW-34D	0.003048	0.0001522	0.048	No	4	0.0016	0.0006377	0	None	No	0.01	Param.
Lithium (mg/L)	MW-35	0.004694	0.003473	0.048	No	6	0.004083	0.0004446	0	None	No	0.01	Param.
Lithium (mg/L)	MW-37D	0.03755	0.02812	0.048	No	6	0.03283	0.00343	0	None	No	0.01	Param.
Mercury (mg/L)	HGWC-18	0.0002	0.00006	0.002	No	13	0.00015	0.00006683	61.54	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	HGWC-15	0.01	0.0007	0.1	No	19	0.009511	0.002134	94.74	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-21D	0.03102	0.01654	0.1	No	11	0.02427	0.0101	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	MW-22	0.01	0.01	0.1	No	10	0.009013	0.003121	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	MW-23D	0.005029	0.002108	0.1	No	10	0.00368	0.002326	10	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	MW-37D	0.0228	0.005969	0.1	No	6	0.01438	0.006125	0	None	No	0.01	Param.
Selenium (mg/L)	HGWC-14	0.01256	0.006717	0.05	No	21	0.009639	0.005295	0	None	No	0.01	Param.
Selenium (mg/L)	HGWC-15	0.005	0.0041	0.05	No	21	0.004386	0.001446	80.95	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-16	0.005	0.000089	0.05	No	21	0.004766	0.001072	95.24	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-17	0.005	0.0023	0.05	No	21	0.004466	0.001385	85.71	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-18	0.03229	0.01667	0.05	No	21	0.02448	0.01416	4.762	None	No	0.01	Param.
Selenium (mg/L)	MW-22	0.005	0.005	0.05	No	10	0.0047	0.0009487	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	MW-33	0.03151	0.00655	0.05	No	7	0.01811	0.01199	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	MW-34D	0.005	0.0025	0.05	No	4	0.004375	0.00125	75	None	No	0.0625	NP (NDs)
Selenium (mg/L)	MW-35	0.02994	0.006285	0.05	No	6	0.01655	0.01042	0	None	x^(1/3)	0.01	Param.
Thallium (mg/L)	HGWC-14	0.0003	0.00027	0.002	No	21	0.0002936	0.00003129	0	None	No	0.01	NP (normality)
Thallium (mg/L)	HGWC-17	0.001	0.00012	0.002	No	21	0.0007048	0.0004279	66.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	HGWC-18	0.001	0.00016	0.002	No	21	0.0005252	0.0004218	42.86	None	No	0.01	NP (normality)
Thallium (mg/L)	MW-33	0.0003547	0.0002389	0.002	No	7	0.0002957	0.00005094	0	None	sqrt(x)	0.01	Param.
Thallium (mg/L)	MW-34D	0.001	0.00015	0.002	No	4	0.0007875	0.000425	75	None	No	0.0625	NP (NDs)
Thallium (mg/L)	MW-35	0.001	0.00013	0.002	No	6	0.000855	0.0003552	83.33	None	No	0.0155	NP (NDs)

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

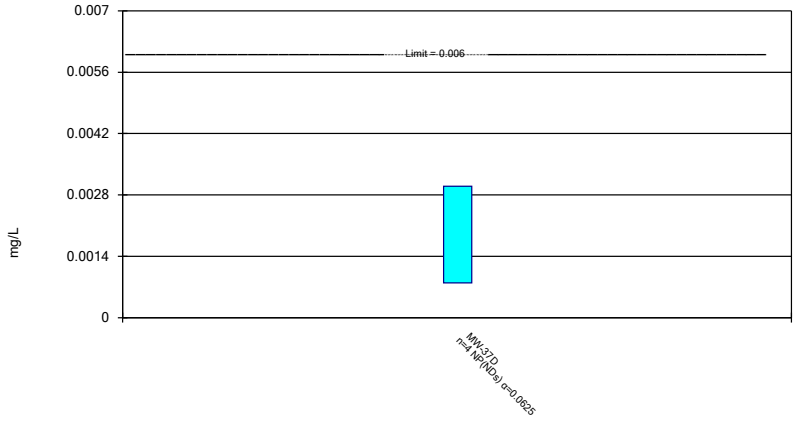


Constituent: Antimony Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

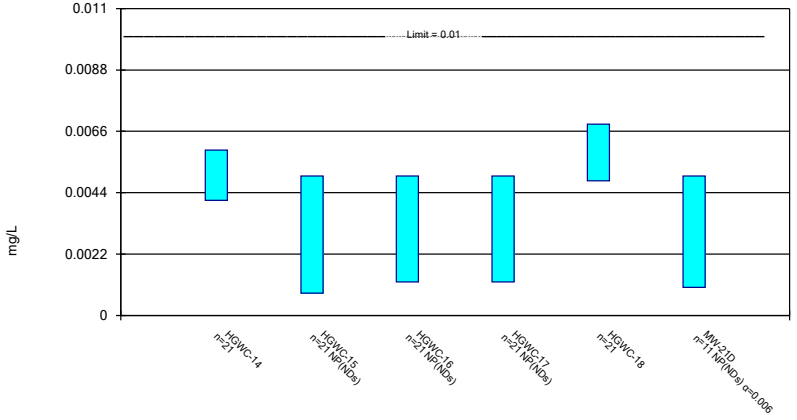


Constituent: Antimony Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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.

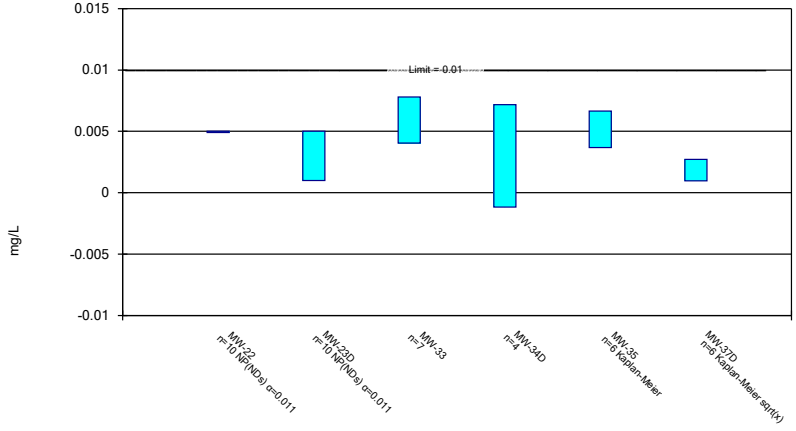


Constituent: Arsenic Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

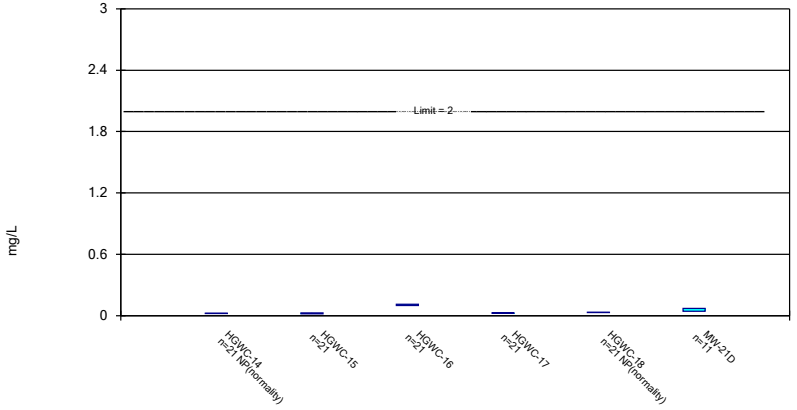
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

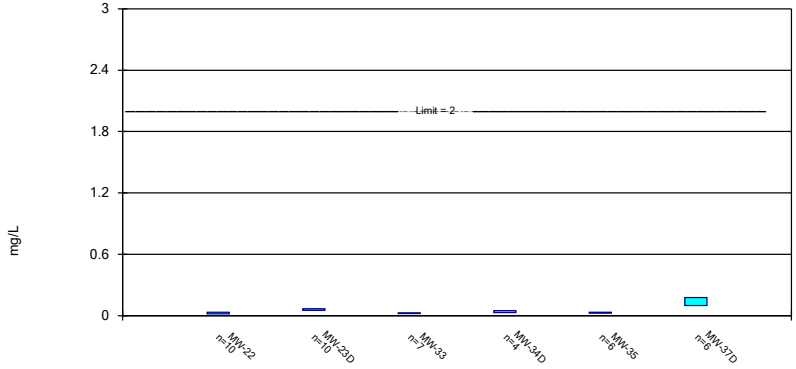


Constituent: Barium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

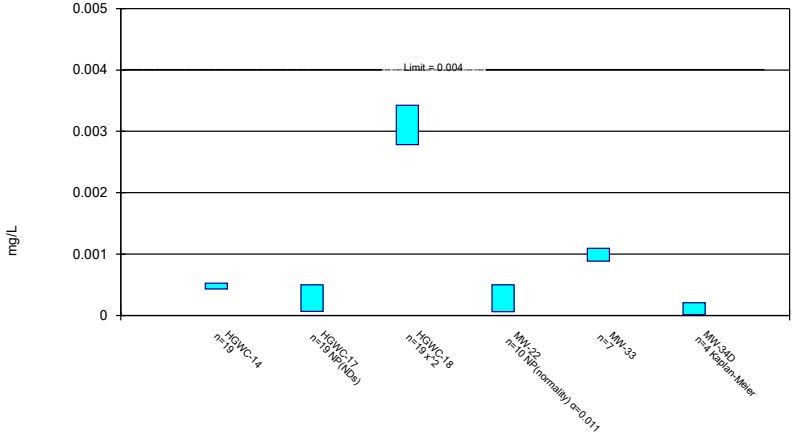


Constituent: Barium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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.

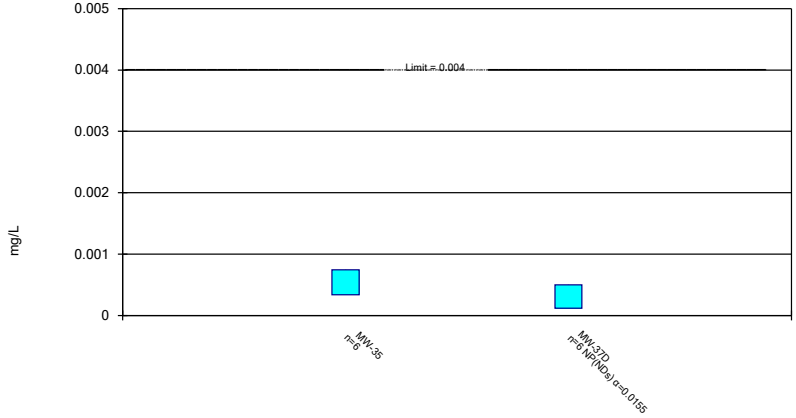


Constituent: Beryllium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

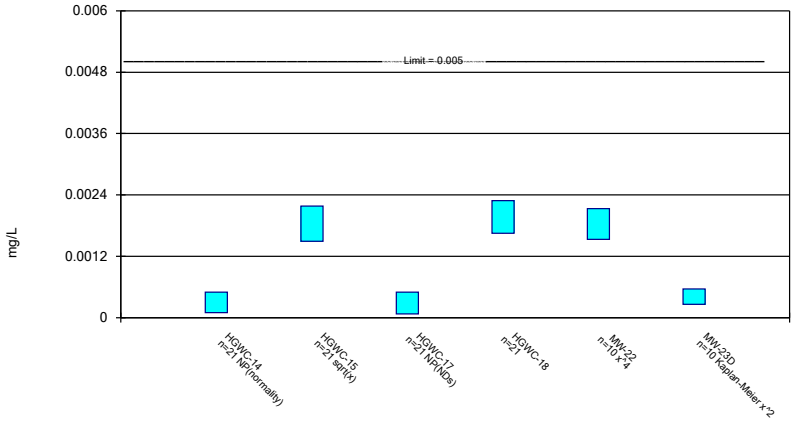
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

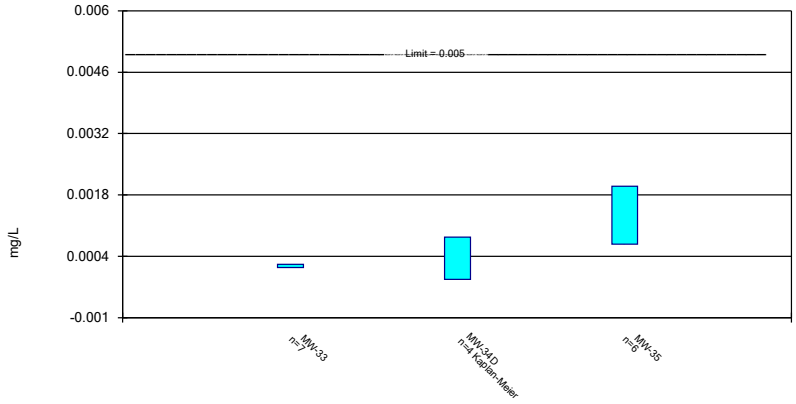


Constituent: Cadmium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

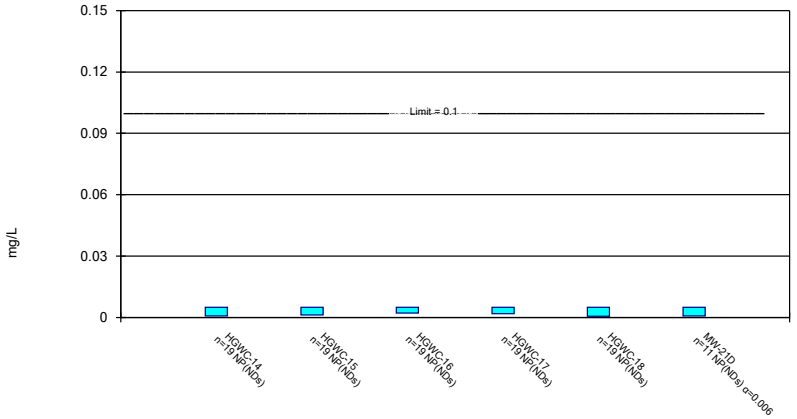


Constituent: Cadmium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

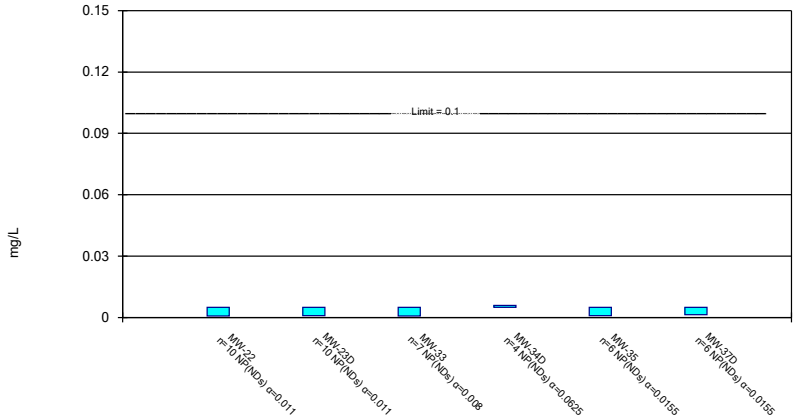


Constituent: Chromium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

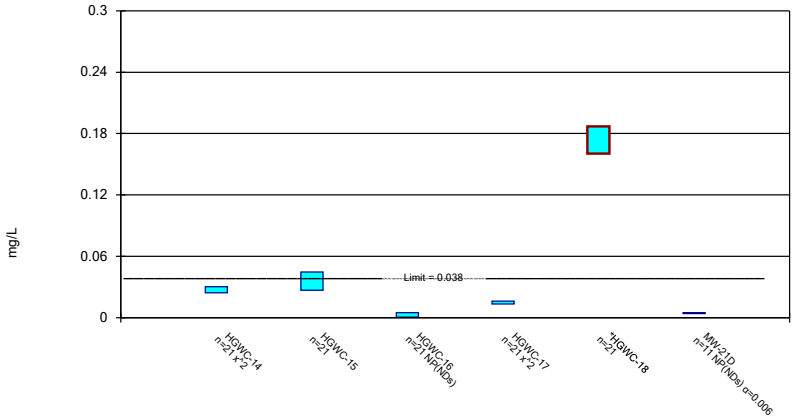
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

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.

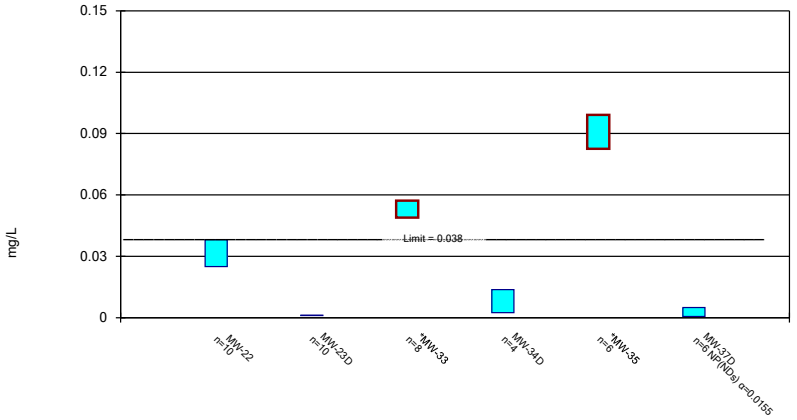


Constituent: Cobalt Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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.

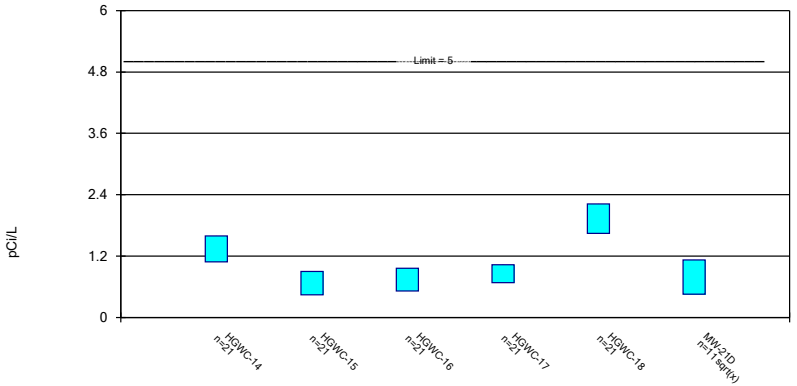


Constituent: Cobalt Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

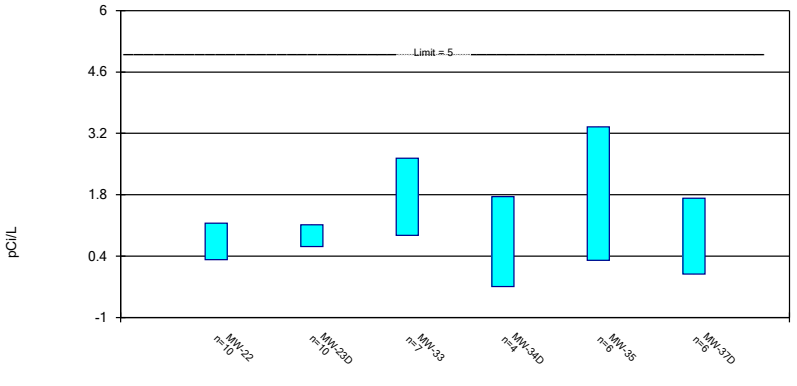


Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric Confidence Interval

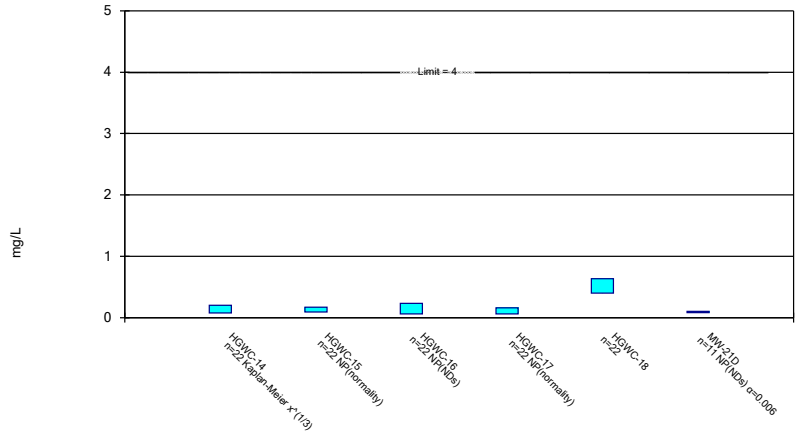
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

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.



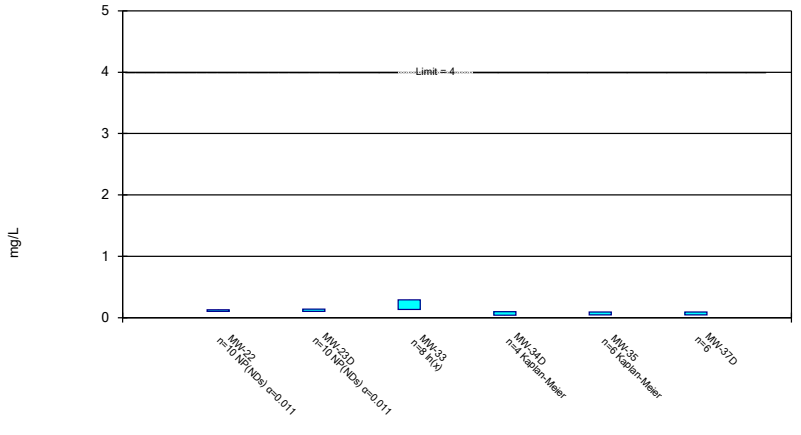
Constituent: Fluoride Analysis Run 4/26/2022 4:54 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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.



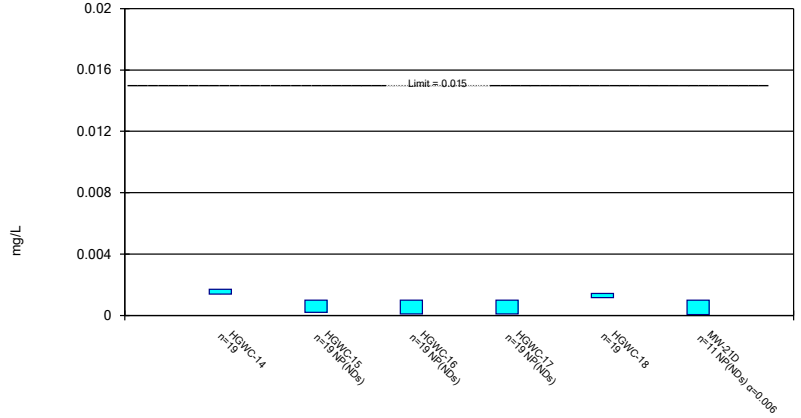
Constituent: Fluoride Analysis Run 4/26/2022 4:54 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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.



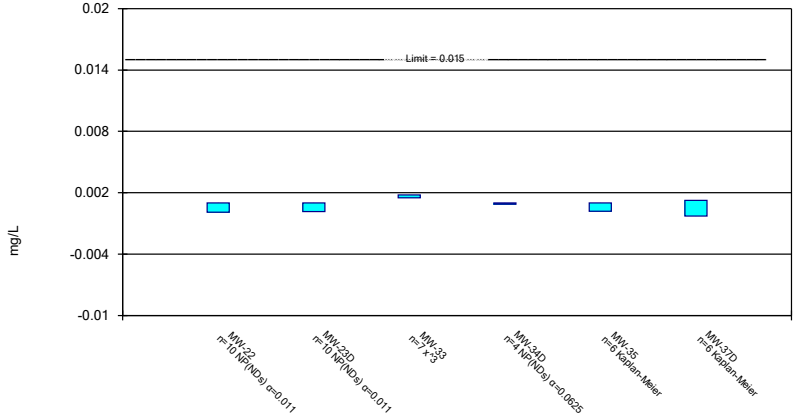
Constituent: Lead Analysis Run 4/26/2022 4:54 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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.

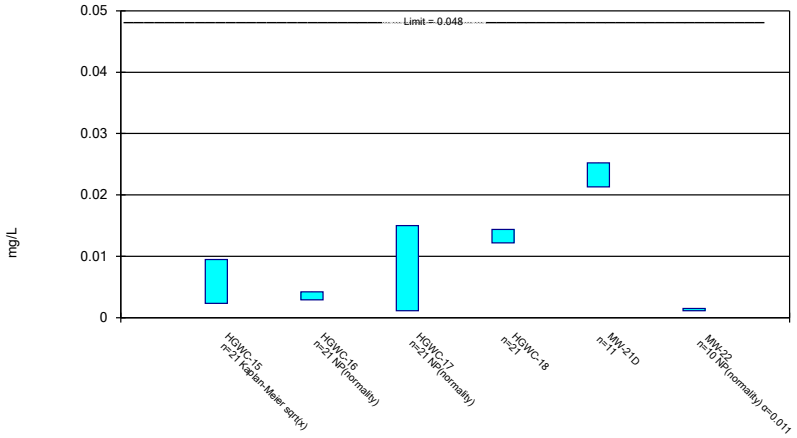


Constituent: Lead Analysis Run 4/26/2022 4:54 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

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.

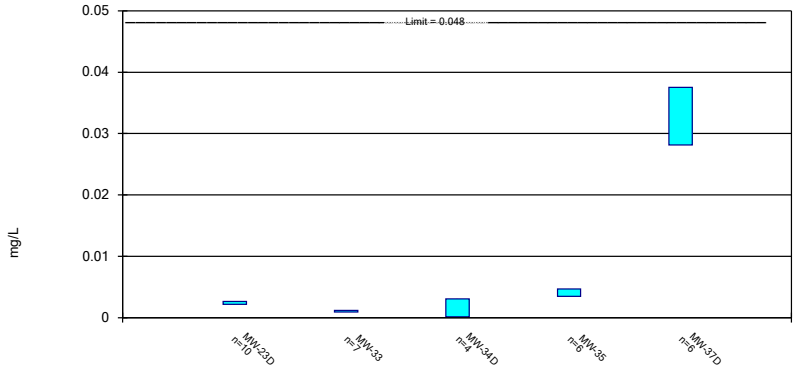


Constituent: Lithium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

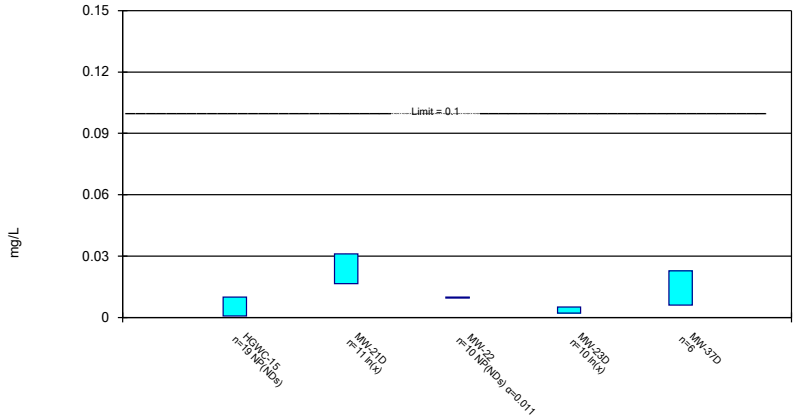
Compliance Limit is not exceeded. Per-well alpha = 0.01.

Constituent: Mercury Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

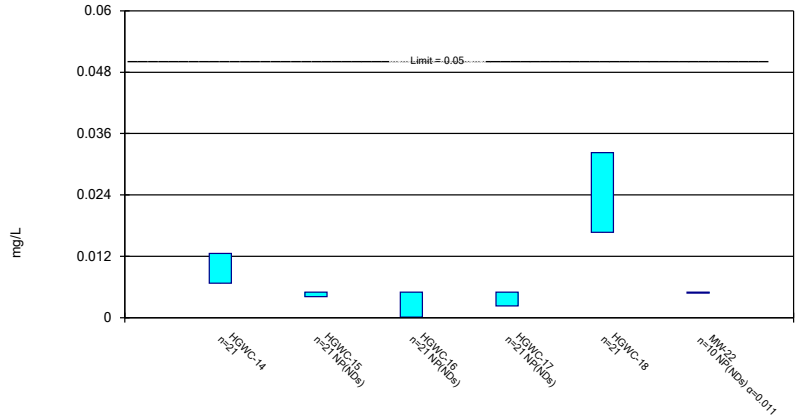
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

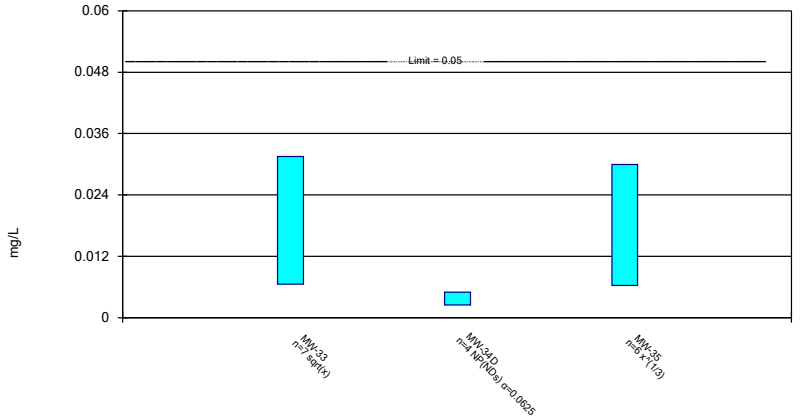


Constituent: Selenium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

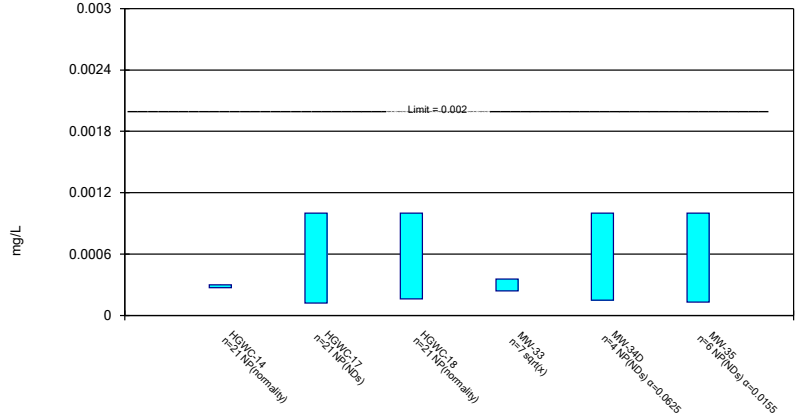


Constituent: Selenium Analysis Run 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

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 4/26/2022 4:54 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-2

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-18	MW-22	MW-33	MW-35
5/23/2016	<0.003	<0.003				
5/24/2016			<0.003			
7/12/2016	0.0003 (J)	<0.003	<0.003			
9/1/2016	<0.003	<0.003	<0.003			
10/24/2016	<0.003	<0.003				
10/25/2016			<0.003			
12/7/2016	<0.003	<0.003				
12/8/2016			<0.003			
1/26/2017	<0.003	<0.003	<0.003			
3/23/2017	<0.003	<0.003	<0.003			
5/24/2017	<0.003	<0.003				
5/25/2017			<0.003			
4/3/2018		<0.003	<0.003			
4/4/2018	<0.003					
3/14/2019	<0.003	<0.003	<0.003			
3/15/2019				<0.003		
3/2/2020				<0.003		
3/3/2020	<0.003	<0.003	<0.003			
2/11/2021	0.00043 (J)		<0.003			
2/12/2021		<0.003			0.00046 (J)	
2/15/2021				<0.003		0.00041 (J)
3/16/2021		<0.003				
3/17/2021	<0.003			<0.003		
3/18/2021			<0.003		<0.003	
3/19/2021						<0.003
8/18/2021	<0.003				<0.003	<0.003
8/19/2021		<0.003	0.0008 (J)	0.0016 (J)		
2/8/2022		0.002 (J)	<0.003	<0.003	<0.003	0.0029 (J)
2/9/2022	<0.003					
Mean	0.002649	0.002933	0.002853	0.002767	0.002365	0.002328
Std. Dev.	0.0009275	0.0002582	0.000568	0.0005715	0.00127	0.001279
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.00043	0.002	0.0008	0.0016	0.00046	0.00041

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-37D
2/11/2021	0.00079 (J)
3/12/2021	<0.003
8/18/2021	<0.003
2/8/2022	<0.003
Mean	0.002448
Std. Dev.	0.001105
Upper Lim.	0.003
Lower Lim.	0.00079

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D
5/23/2016	0.00268 (J)	<0.005	<0.005	<0.005		
5/24/2016					0.00294 (J)	
7/12/2016	0.0059	<0.005	<0.005	<0.005	0.0074	
9/1/2016	0.0056	<0.005	<0.005	<0.005	0.0073	
10/24/2016	0.0058	<0.005				
10/25/2016			<0.005	<0.005	0.006	
12/7/2016	<0.005	<0.005	<0.005	<0.005		
12/8/2016					0.007	
1/26/2017	0.0089	<0.005	<0.005	<0.005	0.0068	
3/22/2017			0.0005 (J)	0.0007 (J)		
3/23/2017	0.0069	0.0008 (J)			0.0082	
5/24/2017	0.0048 (J)	<0.005	<0.005			
5/25/2017				0.0007 (J)	0.006	
4/3/2018		<0.005	<0.005	<0.005	0.0062	
4/4/2018	0.0052					
6/5/2018					0.008	
6/6/2018	0.0059	<0.005	<0.005	0.00097 (J)		
10/3/2018	0.0032 (J)	<0.005	<0.005	<0.005	0.0039 (J)	
3/14/2019	0.0029 (J)	<0.005			0.0036 (J)	
3/15/2019			<0.005	<0.005		<0.005
4/4/2019		0.00017 (J)	0.0001 (J)			0.00019 (J)
4/5/2019	<0.005			<0.005	0.0015 (J)	
9/24/2019	0.0039 (J)	0.00037 (J)				
9/25/2019			<0.005	<0.005	0.0044 (J)	<0.005
3/3/2020	0.0035 (J)	<0.005	<0.005	<0.005	0.0057	<0.005
3/26/2020		<0.005				
3/30/2020	0.0051		0.0011 (J)			
3/31/2020				0.0008 (J)	0.0056	
4/1/2020						0.0013 (J)
6/17/2020						<0.005
9/15/2020					0.0074	
9/16/2020				<0.005		
9/17/2020		<0.005	<0.005			
9/18/2020	0.0029 (J)					
9/21/2020						<0.005
2/10/2021			0.0012 (J)			
2/11/2021	0.0062			0.0012 (J)	0.0069 (B)	0.001 (J)
2/12/2021		<0.005				
3/16/2021		<0.005				
3/17/2021	<0.005		<0.005			
3/18/2021				<0.005	0.0083 (J)	<0.005
8/18/2021	0.0035 (J)			<0.005		
8/19/2021		<0.005	<0.005		0.0045 (J)	<0.005
2/8/2022		<0.005	<0.005	0.0017 (J)	0.005 (J)	<0.005
2/9/2022	0.0077					
Mean	0.005028	0.00435	0.004186	0.00386	0.00584	0.003863
Std. Dev.	0.001634	0.001636	0.001732	0.001856	0.001838	0.001965
Upper Lim.	0.005929	0.005	0.005	0.005	0.006854	0.005
Lower Lim.	0.004126	0.0008	0.0012	0.0012	0.004826	0.001

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019		<0.005				
3/15/2019	<0.005					
4/5/2019	<0.005	<0.005				
9/26/2019		<0.005				
9/27/2019	0.00045 (J)					
3/2/2020	<0.005	<0.005				
3/27/2020	<0.005					
4/1/2020		0.00082 (J)	0.0061			
6/17/2020			0.0031 (J)			
6/18/2020				0.0032 (J)	0.005 (J)	0.0021 (J)
9/17/2020	<0.005	<0.005				
9/21/2020			0.0083		0.0059	
9/23/2020				0.001 (J)		0.00095 (J)
2/11/2021						0.0023 (J)
2/12/2021		0.001 (J)	0.0059			
2/15/2021	<0.005				0.005	
3/12/2021						<0.005
3/17/2021	<0.005	<0.005				
3/18/2021			0.0054 (J)			
3/19/2021					<0.005	
8/16/2021				0.0024 (J)		
8/18/2021			0.0058		0.0043 (J)	<0.005
8/19/2021	<0.005	<0.005				
2/8/2022	<0.005		0.0069		0.0072	<0.005
2/9/2022				0.0054		
2/10/2022		<0.005				
Mean	0.004545	0.004182	0.005929	0.003	0.0054	0.003392
Std. Dev.	0.001439	0.001725	0.001576	0.00184	0.001018	0.001821
Upper Lim.	0.005	0.005	0.0078	0.007178	0.006646	0.002705
Lower Lim.	0.005	0.001	0.004057	-0.001178	0.003688	0.0009647

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D
5/23/2016	<0.2	0.0315 (J)	0.0841	0.0222 (J)		
5/24/2016					<0.2	
7/12/2016	0.0214	0.0372	0.0886	0.0221	0.0346	
9/1/2016	0.0208	0.0364	0.0934	0.0227	0.0336	
10/24/2016	0.0208	0.0326				
10/25/2016			0.0991	0.0225	0.0349	
12/7/2016	0.022	0.0301	0.101	0.0227		
12/8/2016					0.0339	
1/26/2017	0.0238	0.0287	0.105	0.0229	0.0293	
3/22/2017			0.11	0.0248		
3/23/2017	0.0244	0.0329			0.0313	
5/24/2017	0.0228	0.0283	0.106			
5/25/2017				0.0255	0.0336	
4/3/2018		0.019	0.099	0.025	0.028	
4/4/2018	0.021					
6/5/2018					0.03	
6/6/2018	0.022	0.022	0.11	0.028		
10/3/2018	0.02	0.025	0.11	0.028	0.032	
3/14/2019	0.019	0.021			0.029	
3/15/2019			0.13	0.029		0.09
4/4/2019		0.018	0.11			0.075
4/5/2019	0.016			0.022	0.021	
9/24/2019	0.021	0.019				
9/25/2019			0.11	0.025	0.03	0.066
3/3/2020	0.018	0.018	0.12	0.026	0.026	0.058
3/26/2020		0.016				
3/30/2020	0.02		0.11			
3/31/2020				0.029	0.029	
4/1/2020						0.066
6/17/2020						0.054
9/15/2020					0.03	
9/16/2020				0.025		
9/17/2020		0.017	0.11			
9/18/2020	0.019					
9/21/2020						0.049
2/10/2021			0.11			
2/11/2021	0.02			0.025	0.03	0.044
2/12/2021		0.014				
3/16/2021		0.012				
3/17/2021	0.023		0.12			
3/18/2021				0.027	0.031	0.047
8/18/2021	0.018			0.022		
8/19/2021		0.01	0.1		0.031	0.042
2/8/2022		0.0098	0.1	0.021	0.02	0.033
2/9/2022	0.017					
Mean	0.02429	0.02279	0.106	0.02464	0.03325	0.05673
Std. Dev.	0.01748	0.008587	0.01056	0.00249	0.01577	0.01649
Upper Lim.	0.0228	0.02752	0.1118	0.02601	0.0336	0.07047
Lower Lim.	0.019	0.01805	0.1002	0.02326	0.029	0.04299

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019		0.082				
3/15/2019	0.044					
4/5/2019	0.036	0.061				
9/26/2019		0.064				
9/27/2019	0.028					
3/2/2020	0.027	0.06				
3/27/2020	0.025					
4/1/2020		0.065	0.027			
6/17/2020			0.024			
6/18/2020				0.044	0.029	0.19
9/17/2020	0.02	0.057				
9/21/2020			0.024		0.028	
9/23/2020				0.038		0.14
2/11/2021						0.14
2/12/2021		0.056	0.025			
2/15/2021	0.017				0.026	
3/12/2021						0.12
3/17/2021	0.018	0.058				
3/18/2021			0.029			
3/19/2021					0.032	
8/16/2021				0.035		
8/18/2021			0.025		0.025	0.12
8/19/2021	0.018	0.05				
2/8/2022	0.014		0.02		0.023	0.11
2/9/2022				0.04		
2/10/2022		0.05				
Mean	0.0247	0.0603	0.02486	0.03925	0.02717	0.1367
Std. Dev.	0.00944	0.009154	0.002795	0.003775	0.003189	0.02875
Upper Lim.	0.03312	0.06847	0.02818	0.04782	0.03155	0.1762
Lower Lim.	0.01628	0.05213	0.02154	0.03068	0.02279	0.09717

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-17	HGWC-18	MW-22	MW-33	MW-34D
5/23/2016	<0.0005	<0.0005				
5/24/2016			0.00278 (J)			
7/12/2016	0.0005 (J)	<0.0005	0.0032			
9/1/2016	0.0005 (J)	<0.0005	0.0034			
10/24/2016	0.0005 (J)					
10/25/2016		<0.0005	0.0034			
12/7/2016	0.0006 (J)	<0.0005				
12/8/2016			0.0033			
1/26/2017	0.0005 (J)	<0.0005	0.0034			
3/22/2017		<0.0005				
3/23/2017	0.0006 (J)		0.0036			
5/24/2017	0.0005 (J)					
5/25/2017		<0.0005	0.0036			
4/3/2018		<0.0005	<0.0005			
4/4/2018	<0.0005					
3/14/2019	0.00043 (J)		0.0026 (J)			
3/15/2019		<0.0005		<0.0005		
4/5/2019	0.00027 (J)	<0.0005	0.0022 (J)	<0.0005		
9/24/2019	0.00044 (J)					
9/25/2019		<0.0005	0.0031			
9/27/2019				<0.0005		
3/2/2020				<0.0005		
3/3/2020	0.00043 (J)	<0.0005	0.0029 (J)			
3/27/2020				<0.0005		
3/30/2020	0.00043 (J)					
3/31/2020		<0.0005	0.003			
4/1/2020					0.0011 (J)	
6/17/2020					0.00099 (J)	
6/18/2020						0.00015 (J)
9/15/2020			0.0033			
9/16/2020		<0.0005				
9/17/2020				4.7E-05 (J)		
9/18/2020	0.00043 (J)					
9/21/2020					0.0009 (J)	
9/23/2020						<0.0005
2/11/2021	0.00044 (J)	6.7E-05 (J)	0.0036			
2/12/2021					0.001 (J)	
2/15/2021				6.2E-05 (J)		
3/17/2021	0.00058			8.2E-05 (J)		
3/18/2021		4.8E-05 (J)	0.0038		0.0011	
8/16/2021						<0.0005
8/18/2021	0.00039 (J)	<0.0005			0.00097	
8/19/2021			0.0034	7E-05 (J)		
2/8/2022		<0.0005	0.0026	7.9E-05 (J)	0.00087 (J)	
2/9/2022	0.00056					6.5E-05 (J)
Mean	0.0004789	0.0004534	0.003036	0.000284	0.00099	0.0003038
Std. Dev.	7.937E-05	0.0001396	0.0007391	0.0002279	8.869E-05	0.0002293
Upper Lim.	0.0005254	0.0005	0.003424	0.0005	0.001095	0.000204
Lower Lim.	0.0004325	6.7E-05	0.002783	6.2E-05	0.0008846	1.101E-05

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-35	MW-37D
6/18/2020	0.00032 (J)	0.00012 (J)
9/21/2020	0.0004 (J)	
9/23/2020		<0.0005
2/11/2021		<0.0005
2/15/2021	0.0006 (J)	
3/12/2021		<0.0005
3/19/2021	0.00061	
8/18/2021	0.00061	<0.0005
2/8/2022	0.0007 (J)	<0.0005
Mean	0.00054	0.0004367
Std. Dev.	0.0001463	0.0001551
Upper Lim.	0.000741	0.0005
Lower Lim.	0.000339	0.00012

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-17	HGWC-18	MW-22	MW-23D
5/23/2016	0.000139 (J)	0.00271 (J)	<0.0005			
5/24/2016				<0.0005		
7/12/2016	<0.0005	0.0019	<0.0005	0.0022		
9/1/2016	0.0001 (J)	0.0017	<0.0005	0.0024		
10/24/2016	0.0002 (J)	0.0018				
10/25/2016			<0.0005	0.0022		
12/7/2016	0.0001 (J)	0.0018	<0.0005			
12/8/2016				0.0024		
1/26/2017	0.0001 (J)	0.0013	<0.0005	0.0025		
3/22/2017			7E-05 (J)			
3/23/2017	0.0002 (J)	0.002		0.0025		
5/24/2017	0.0001 (J)	0.0041				
5/25/2017			<0.0005	0.0027		
4/3/2018		0.0022	<0.0005	0.0022		
4/4/2018	<0.0005					
6/5/2018				0.0022		
6/6/2018	0.00012 (J)	0.0021	<0.0005			
10/3/2018	0.0001 (J)	0.0026	<0.0005	0.0027		
3/14/2019	<0.0005	0.0024		0.0019		<0.0005
3/15/2019			<0.0005		0.00082 (J)	
4/4/2019		0.0018				
4/5/2019	7.9E-05 (J)		<0.0005	0.0017	0.00064 (J)	<0.0005
9/24/2019	<0.0005	0.0014 (J)				
9/25/2019			<0.0005	0.0023 (J)		
9/26/2019						<0.0005
9/27/2019					0.0014 (J)	
3/2/2020					0.0021 (J)	<0.0005
3/3/2020	<0.0005	0.0015 (J)	<0.0005	0.0021 (J)		
3/26/2020		0.0016 (J)				
3/27/2020					0.0019 (J)	
3/30/2020	<0.0005					
3/31/2020			<0.0005	0.0017 (J)		
4/1/2020						<0.0005
9/15/2020				0.0019 (J)		
9/16/2020			<0.0005			
9/17/2020		0.0016 (J)			0.0021 (J)	0.0006 (J)
9/18/2020	<0.0005					
2/11/2021	<0.0005		<0.0005	0.0016 (J)		
2/12/2021		0.0014 (J)				0.00045 (J)
2/15/2021					0.002 (J)	
3/16/2021		0.0011				
3/17/2021	<0.0005				0.0022	0.00057
3/18/2021			<0.0005	0.0015		
8/18/2021	0.00013 (J)		<0.0005			
8/19/2021		0.0012		0.0014	0.0021	0.00012 (J)
2/8/2022		0.0011	<0.0005	0.00076	0.002	
2/9/2022	<0.0005					
2/10/2022						0.00024 (J)
Mean	0.0003032	0.001872	0.0004795	0.00197	0.001726	0.000448
Std. Dev.	0.0001944	0.0006855	9.383E-05	0.000583	0.0005707	0.0001499
Upper Lim.	0.0005	0.002181	0.0005	0.002291	0.002134	0.0005615
Lower Lim.	0.0001	0.001494	7E-05	0.001648	0.001532	0.0002617

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-33	MW-34D	MW-35
4/1/2020	0.00022 (J)		
6/17/2020	0.00021 (J)		
6/18/2020		<0.0005	0.00053 (J)
9/21/2020	0.00016 (J)		0.001 (J)
9/23/2020		<0.0005	
2/12/2021	0.00017 (J)		
2/15/2021			0.0017 (J)
3/18/2021	0.00019 (J)		
3/19/2021			0.0018
8/16/2021		0.00023 (J)	
8/18/2021	0.00017 (J)		0.0015
2/8/2022	0.00013 (J)		0.0015
2/9/2022		0.00072	
Mean	0.0001786	0.0004875	0.001338
Std. Dev.	3.078E-05	0.0002006	0.0004825
Upper Lim.	0.0002151	0.0008342	0.002001
Lower Lim.	0.000142	-0.0001292	0.0006755

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D
5/23/2016	<0.005	<0.005	<0.005	<0.005		
5/24/2016					<0.005	
7/12/2016	<0.005	<0.005	<0.005	<0.005	<0.005	
9/1/2016	<0.005	<0.005	<0.005	<0.005	<0.005	
10/24/2016	<0.005	<0.005				
10/25/2016			<0.005	<0.005	<0.005	
12/7/2016	<0.005	<0.005	<0.005	<0.005		
12/8/2016					<0.005	
1/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005	
3/22/2017			0.0021 (J)	<0.005		
3/23/2017	<0.005	0.0005 (J)			0.0005 (J)	
5/24/2017	<0.005	<0.005	<0.005			
5/25/2017				<0.005	<0.005	
4/3/2018		<0.005	<0.005	<0.005	<0.005	
4/4/2018	<0.005					
3/14/2019	<0.005	<0.005			<0.005	
3/15/2019			<0.005	<0.005		<0.005
4/4/2019		<0.005	<0.005			<0.005
4/5/2019	<0.005			<0.005	<0.005	
9/24/2019	<0.005	0.00041 (J)				
9/25/2019			<0.005	<0.005	<0.005	<0.005
3/3/2020	0.00042 (J)	<0.005	0.00071 (J)	0.0018 (J)	0.0004 (J)	<0.005
3/26/2020		<0.005				
3/30/2020	0.00066 (J)		0.0004 (J)			
3/31/2020				<0.005	<0.005	
4/1/2020						<0.005
6/17/2020						0.00057 (J)
9/15/2020					0.00063 (J)	
9/16/2020				<0.005		
9/17/2020		<0.005	<0.005			
9/18/2020	<0.005					
9/21/2020						<0.005
2/10/2021			<0.005			
2/11/2021	<0.005			0.00074 (J)	<0.005	<0.005
2/12/2021		<0.005				
3/16/2021		0.0012 (J)				
3/17/2021	<0.005		<0.005			
3/18/2021				0.00069 (J)	<0.005	0.00074 (J)
8/18/2021	<0.005			<0.005		
8/19/2021		<0.005	<0.005		<0.005	<0.005
2/8/2022		<0.005	<0.005	<0.005	<0.005	<0.005
2/9/2022	<0.005					
Mean	0.004531	0.004322	0.004379	0.004381	0.004291	0.00421
Std. Dev.	0.001407	0.001616	0.001503	0.001485	0.001683	0.001758
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00066	0.0012	0.0021	0.0018	0.00063	0.00074

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019		<0.005				
3/15/2019	<0.005					
4/5/2019	<0.005	<0.005				
9/26/2019		<0.005				
9/27/2019	0.0004 (J)					
3/2/2020	<0.005	<0.005				
3/27/2020	<0.005					
4/1/2020		0.00086 (J)	0.00069 (J)			
6/17/2020			<0.005			
6/18/2020				0.0059 (J)	<0.005	0.0048 (J)
9/17/2020	<0.005	<0.005				
9/21/2020			<0.005		0.00079 (J)	
9/23/2020				<0.005		<0.005
2/11/2021						0.0014 (J)
2/12/2021		<0.005	<0.005			
2/15/2021	<0.005				<0.005	
3/12/2021						<0.005
3/17/2021	0.00075 (J)	0.00083 (J)				
3/18/2021			<0.005			
3/19/2021					0.00083 (J)	
8/16/2021				<0.005		
8/18/2021			<0.005		<0.005	<0.005
8/19/2021	<0.005	<0.005				
2/8/2022	<0.005		<0.005		<0.005	<0.005
2/9/2022				<0.005		
2/10/2022		<0.005				
Mean	0.004115	0.004169	0.004384	0.005225	0.003603	0.004367
Std. Dev.	0.001868	0.001752	0.001629	0.00045	0.002164	0.001456
Upper Lim.	0.005	0.005	0.005	0.0059	0.005	0.005
Lower Lim.	0.00075	0.00086	0.00069	0.005	0.00079	0.0014

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D
5/23/2016	<0.005	0.0419 (J)	<0.005	0.0167		
5/24/2016					0.17 (J)	
7/12/2016	0.0232	0.0393	<0.005	0.0148	0.168	
9/1/2016	0.0248	0.045	<0.005	0.0151	0.18	
10/24/2016	0.0253	0.0557				
10/25/2016			<0.005	0.0141	0.188	
12/7/2016	0.0269	0.0536	<0.005	0.0141		
12/8/2016					0.206	
1/26/2017	0.0294	0.055	<0.005	0.0154	0.195	
3/22/2017			<0.005	0.0169		
3/23/2017	0.0311	0.0715			0.223	
5/24/2017	0.0279	0.0446	<0.005			
5/25/2017				0.0154	0.209	
4/3/2018		0.032	<0.005	0.016	0.19	
4/4/2018	0.025					
6/5/2018					0.19	
6/6/2018	0.027	0.032	<0.005	0.018		
10/3/2018	0.023	0.051	<0.005	0.016	0.19	
3/14/2019	0.025	0.038			0.16	
3/15/2019			<0.005	0.017		<0.005
4/4/2019		0.035	0.00028 (J)			0.00034 (J)
4/5/2019	0.021			0.016	0.14	
9/24/2019	0.026	0.022				
9/25/2019			<0.005	0.015	0.18	<0.005
3/3/2020	0.029	0.03	0.00037 (J)	0.016	0.15	<0.005
3/26/2020		0.022				
3/30/2020	0.028		<0.005			
3/31/2020				0.016	0.16	
4/1/2020						<0.005
6/17/2020						<0.005
9/15/2020					0.16	
9/16/2020				0.013		
9/17/2020		0.026	<0.005			
9/18/2020	0.027					
9/21/2020						<0.005
2/10/2021			<0.005			
2/11/2021	0.033			0.012	0.14	<0.005
2/12/2021		0.019				
3/16/2021		0.018				
3/17/2021	0.034		<0.005			
3/18/2021				0.012	0.14	<0.005
8/18/2021	0.033			0.009		
8/19/2021		0.011	<0.005		0.15	<0.005
2/8/2022		0.0081	<0.005	0.0066	0.16	<0.005
2/9/2022	0.038					
Mean	0.02679	0.03575	0.004555	0.01453	0.1738	0.004576
Std. Dev.	0.006468	0.01632	0.001406	0.002742	0.02406	0.001405
Upper Lim.	0.03033	0.04475	0.005	0.01601	0.187	0.005
Lower Lim.	0.0244	0.02675	0.00037	0.01342	0.1605	0.005

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019		0.0013 (J)				
3/15/2019	0.028					
4/5/2019	0.022	0.0012 (J)				
9/26/2019		0.00098 (J)				
9/27/2019	0.035					
1/22/2020			0.052			
3/2/2020	0.043	0.0011 (J)				
3/27/2020	0.025					
4/1/2020		0.0011 (J)	0.058			
6/17/2020			0.053			
6/18/2020				0.011	0.091	0.0015 (J)
9/17/2020	0.029	0.00096 (J)				
9/21/2020			0.047		0.084	
9/23/2020				0.0056		<0.005
2/11/2021						0.00048 (J)
2/12/2021		0.001 (J)	0.055			
2/15/2021	0.038				0.095	
3/12/2021						<0.005
3/17/2021	0.039	0.0011 (J)				
3/18/2021			0.057			
3/19/2021					0.1	
8/16/2021				0.0093		
8/18/2021			0.054		0.085	<0.005
8/19/2021	0.022	0.00089 (J)				
2/8/2022	0.034		0.048		0.09	<0.005
2/9/2022				0.0065		
2/10/2022		0.001 (J)				
Mean	0.0315	0.001063	0.053	0.0081	0.09083	0.003663
Std. Dev.	0.007382	0.0001222	0.003928	0.002494	0.006047	0.002096
Upper Lim.	0.03809	0.001172	0.05716	0.01376	0.09914	0.005
Lower Lim.	0.02491	0.000954	0.04884	0.002438	0.08253	0.00048

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D
5/23/2016	0.568 (U)	0.171 (U)		0.618 (U)		
5/24/2016					1.82	
7/1/2016			0 (U)			
7/12/2016	1.31	0.611 (U)	0.182 (U)	0.867	1.76	
9/1/2016	1.64	0.766 (U)	1.23	0.857 (U)	1.51	
10/24/2016	1.88	0.969				
10/25/2016			1.05 (U)	1.11 (U)	2.69	
12/7/2016	1.35	0.302 (U)	1.11 (U)	0.964 (U)		
12/8/2016					2.21	
1/26/2017	2.1	0.626 (U)	1.29 (U)	0.612 (U)	2.26	
3/22/2017			0.453 (U)	0.437 (U)		
3/23/2017	1.17	0.662 (U)			1.81	
5/24/2017	1 (U)	0.202 (U)	1.05 (U)			
5/25/2017				1.21 (U)	1.63	
4/3/2018		0.384 (U)	0.783 (U)	0.409 (U)	2.53	
4/4/2018	1.72					
6/5/2018					1.91	
6/6/2018	1.31 (U)	1.32 (U)	0.595 (U)	0.772 (U)		
10/3/2018	1.48	0.858 (U)	1.03 (U)	1.08 (U)	2.22	
3/14/2019	1.5	0.462 (U)			1.37 (U)	
3/15/2019			0.591 (U)	0.917 (U)		0.972 (U)
4/4/2019		0.512 (U)	0.96 (U)			0.791 (U)
4/5/2019	1.43 (U)			1.07 (U)	2.22	
9/24/2019	1.17	0.582 (U)				
9/25/2019			0.643 (U)	1.54	2.77	0.751 (U)
3/3/2020	1.84	1.43	1.32 (U)	1.33	2.35	1.94
3/26/2020		0.855 (U)				
3/30/2020	1.08 (U)		0.288 (U)			
3/31/2020				0.591 (U)	2.7	
4/1/2020						0.758 (U)
6/17/2020						0.691 (U)
9/15/2020					1.65	
9/16/2020				0.295 (U)		
9/17/2020		0.395 (U)	1.1 (U)			
9/18/2020	1.8 (U)					
9/21/2020						0.436 (U)
2/10/2021			0.773 (U)			
2/11/2021	0.73 (U)			0.831 (U)	1.11	0.317 (U)
2/12/2021		1.65				
3/16/2021		0.801 (U)				
3/17/2021	1.84		0.228 (U)			
3/18/2021				0.856 (U)	1.63	0.5 (U)
8/18/2021	0.858 (U)			0.548 (U)		
8/19/2021		0.527 (U)	0.668 (U)		1.45	1.17
2/8/2022		0.0242 (U)	0.168 (U)	1 (U)	0.93 (U)	0.463 (U)
2/9/2022	0.346 (U)					
Mean	1.339	0.6719	0.7387	0.853	1.93	0.799
Std. Dev.	0.4637	0.4139	0.4041	0.3157	0.5232	0.4529
Upper Lim.	1.595	0.9002	0.9616	1.027	2.219	1.121
Lower Lim.	1.083	0.4436	0.5157	0.6789	1.641	0.4539

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019		0.872 (U)				
3/15/2019	0.977					
4/5/2019	1.06 (U)	0.932 (U)				
9/26/2019		1.25				
9/27/2019	1.44 (U)					
3/2/2020	0.872 (U)	0.964 (U)				
3/27/2020	0.96 (U)					
4/1/2020		0.914 (U)	2.57			
6/17/2020			1.43 (U)			
6/18/2020				1.36	2.02	1.79
9/17/2020	0.0879 (U)	0.32 (U)				
9/21/2020			2.53		3.85	
9/23/2020				0.563 (U)		0.98 (U)
2/11/2021						0.12 (U)
2/12/2021		1.21 (U)	2.26			
2/15/2021	0.215 (U)				1.52	
3/12/2021						0.578 (U)
3/17/2021	0.981 (U)	0.579 (U)				
3/18/2021			0.733 (U)			
3/19/2021					0.524 (U)	
8/16/2021				0.693 (U)		
8/18/2021			1.77		1.67	1.31
8/19/2021	0.689 (U)	0.69 (U)				
2/8/2022	0.0657 (U)		0.967 (U)		1.38	0.345 (U)
2/9/2022				0.297 (U)		
2/10/2022		0.919 (U)				
Mean	0.7348	0.865	1.751	0.7283	1.827	0.8538
Std. Dev.	0.4631	0.2782	0.7406	0.4523	1.109	0.6283
Upper Lim.	1.148	1.113	2.631	1.755	3.35	1.717
Lower Lim.	0.3216	0.6168	0.8717	-0.2986	0.3043	-0.009304

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D
5/23/2016	<0.1	<0.1	0.038 (J)	<0.1		
5/24/2016					<0.1	
7/12/2016	0.2 (J)	0.09 (J)	0.26 (J)	0.09 (J)	0.54	
9/1/2016	0.08 (J)	0.22 (J)	0.42	0.03 (J)	0.49	
10/24/2016	0.04 (J)	0.07 (J)				
10/25/2016			0.25 (J)	0.07 (J)	0.58	
12/7/2016	0.11 (J)	0.23 (J)	0.23 (J)	0.54		
12/8/2016					0.63	
1/26/2017	0.13 (J)	<0.1	0.02 (J)	<0.1	0.71	
3/22/2017			0.3	0.07 (J)		
3/23/2017	0.28 (J)	0.12 (J)			0.57	
5/24/2017	0.32	0.31	0.46			
5/25/2017				0.42	0.54	
10/4/2017	0.52	0.6	<0.1	0.93	0.95	
4/3/2018		<0.1	<0.1	<0.1	0.33	
4/4/2018	<0.1					
6/5/2018					0.66	
6/6/2018	0.25 (J)	0.17 (J)	<0.1	0.23 (J)		
10/3/2018	0.21 (J)	<0.1	<0.1	<0.1	0.32	
3/14/2019	0.24 (J)	<0.1			0.88	
3/15/2019			<0.1	<0.1		<0.1
4/4/2019		0.066 (J)	<0.1			0.1 (J)
4/5/2019	0.66			0.16 (J)	0.37	
9/24/2019	0.053 (J)	0.12 (J)				
9/25/2019			<0.1	0.081 (J)	0.73	<0.1
3/3/2020	<0.1	0.064 (J)	<0.1	<0.1	0.34	<0.1
3/26/2020		<0.1				
3/30/2020	0.092 (J)		0.059 (J)			
3/31/2020				<0.1	0.45	
4/1/2020						<0.1
6/17/2020						<0.1
9/15/2020					0.31	
9/16/2020				0.058 (J)		
9/17/2020		<0.1	<0.1			
9/18/2020	<0.1					
9/21/2020						<0.1
2/10/2021			0.21			
2/11/2021	0.059 (J)			0.058 (J)	0.71	<0.1
2/12/2021		0.053 (J)				
3/16/2021		<0.1				
3/17/2021	0.076 (J)		<0.1			
3/18/2021				0.057 (J)	0.64	<0.1
8/18/2021	<0.1			0.062 (J)		
8/19/2021		<0.1	<0.1		0.31	<0.1
2/8/2022		<0.1	<0.1	0.055 (J)	0.19	<0.1
2/9/2022	0.053 (J)					
Mean	0.176	0.1415	0.1567	0.1641	0.5159	0.1
Std. Dev.	0.1573	0.1193	0.1176	0.2105	0.2175	4.5E-10
Upper Lim.	0.2023	0.17	0.23	0.16	0.6327	0.1
Lower Lim.	0.07774	0.09	0.059	0.062	0.3991	0.1

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019		<0.1				
3/15/2019	<0.1					
4/5/2019	0.13 (J)	0.14 (J)				
9/26/2019		0.16 (J)				
9/27/2019	0.28 (J)					
1/22/2020			0.18 (J)			
3/2/2020	<0.1	<0.1				
3/27/2020	<0.1					
4/1/2020		<0.1	0.15 (J)			
6/17/2020			0.25			
6/18/2020				0.082 (J)	0.053 (J)	0.1
9/17/2020	<0.1	<0.1				
9/21/2020			0.14		<0.1	
9/23/2020				<0.1		0.065 (J)
2/11/2021						0.077 (J)
2/12/2021		<0.1	0.25			
2/15/2021	<0.1				0.093 (J)	
3/12/2021						0.061 (J)
3/17/2021	<0.1	<0.1				
3/18/2021			0.4			
3/19/2021					0.082 (J)	
8/16/2021				0.066 (J)		
8/18/2021			0.16		0.052 (J)	0.05 (J)
8/19/2021	<0.1	<0.1				
2/8/2022	<0.1		0.14		0.065 (J)	0.055 (J)
2/9/2022				0.051 (J)		
2/10/2022		<0.1				
Mean	0.121	0.11	0.2088	0.07475	0.07417	0.068
Std. Dev.	0.05666	0.0216	0.08951	0.02106	0.02053	0.0182
Upper Lim.	0.13	0.14	0.29	0.09507	0.0912	0.093
Lower Lim.	0.1	0.1	0.1315	0.0376	0.0468	0.043

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D
5/23/2016	0.00182 (J)	<0.001	<0.001	<0.001		
5/24/2016					0.00154 (J)	
7/12/2016	0.0015 (J)	<0.001	<0.001	<0.001	0.0012 (J)	
9/1/2016	0.0016 (J)	<0.001	<0.001	<0.001	0.0014 (J)	
10/24/2016	0.0016 (J)	<0.001				
10/25/2016			<0.001	<0.001	0.0015 (J)	
12/7/2016	0.0018 (J)	<0.001	<0.001	<0.001		
12/8/2016					0.0017 (J)	
1/26/2017	0.002 (J)	<0.001	0.0001 (J)	<0.001	0.0013 (J)	
3/22/2017			0.0002 (J)	0.0001 (J)		
3/23/2017	0.0019 (J)	0.001 (J)			0.001 (J)	
5/24/2017	0.0016 (J)	0.0001 (J)	0.0001 (J)			
5/25/2017				<0.001	0.0012 (J)	
4/3/2018		<0.001	<0.001	<0.001	<0.001	
4/4/2018	<0.001					
3/14/2019	0.0014 (J)	<0.001			0.0015 (J)	
3/15/2019			<0.001	<0.001		<0.001
4/4/2019		7.2E-05 (J)	0.00016 (J)			<0.001
4/5/2019	0.0012 (J)			7.6E-05 (J)	0.0015 (J)	
9/24/2019	0.0013 (J)	0.0002 (J)				
9/25/2019			<0.001	8.9E-05 (J)	0.0015 (J)	<0.001
3/3/2020	0.0017 (J)	5.3E-05 (J)	0.00016 (J)	0.00013 (J)	0.0013 (J)	4.7E-05 (J)
3/26/2020		<0.001				
3/30/2020	0.0015 (J)		7.3E-05 (J)			
3/31/2020				7.7E-05 (J)	0.0014 (J)	
4/1/2020						4.8E-05 (J)
6/17/2020						<0.001
9/15/2020					0.0014 (J)	
9/16/2020				6.5E-05 (J)		
9/17/2020		<0.001	7.8E-05 (J)			
9/18/2020	0.0012 (J)					
9/21/2020						<0.001
2/10/2021			9.4E-05 (J)			
2/11/2021	0.0015 (J)			0.00018 (J)	0.00098 (J)	0.00066 (J)
2/12/2021		<0.001				
3/16/2021		<0.001				
3/17/2021	0.0019		5.8E-05 (J)			
3/18/2021				8.8E-05 (J)	0.00096 (J)	7.3E-05 (J)
8/18/2021	0.0015			<0.001		
8/19/2021		<0.001	<0.001		0.0013	<0.001
2/8/2022		<0.001	<0.001	<0.001	0.0009 (J)	<0.001
2/9/2022	0.0014					
Mean	0.001548	0.0008118	0.0005802	0.0006213	0.001294	0.0007116
Std. Dev.	0.0002664	0.0003753	0.0004558	0.0004568	0.0002339	0.000433
Upper Lim.	0.001704	0.001	0.001	0.001	0.001431	0.001
Lower Lim.	0.001392	0.0002	9.4E-05	8.8E-05	0.001157	4.8E-05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-22	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019		<0.001				
3/15/2019	<0.001					
4/5/2019	<0.001	<0.001				
9/26/2019		<0.001				
9/27/2019	0.0001 (J)					
3/2/2020	9.4E-05 (J)	5.1E-05 (J)				
3/27/2020	<0.001					
4/1/2020		<0.001	0.0017 (J)			
6/17/2020			0.0017 (J)			
6/18/2020				0.00087 (J)	0.00016 (J)	0.0017 (J)
9/17/2020	<0.001	0.00016 (J)				
9/21/2020			0.0017 (J)		0.00099 (J)	
9/23/2020				<0.001		8.2E-05 (J)
2/11/2021						0.00039 (J)
2/12/2021		<0.001	0.0018 (J)			
2/15/2021	3.6E-05 (J)				0.00055 (J)	
3/12/2021						<0.001
3/17/2021	<0.001	<0.001				
3/18/2021			0.0017			
3/19/2021					0.00066 (J)	
8/16/2021				<0.001		
8/18/2021			0.0016		<0.001	<0.001
8/19/2021	<0.001	<0.001				
2/8/2022	<0.001		0.0014		<0.001	<0.001
2/9/2022				<0.001		
2/10/2022		<0.001				
Mean	0.000723	0.0008211	0.001657	0.0009675	0.0007267	0.000862
Std. Dev.	0.0004463	0.000378	0.0001272	6.5E-05	0.0003393	0.000564
Upper Lim.	0.001	0.001	0.001793	0.001	0.0009972	0.001254
Lower Lim.	9.4E-05	0.00016	0.001514	0.00087	0.0001828	-0.000294

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-21D	MW-22
5/23/2016	<0.03	<0.03	<0.03			
5/24/2016				0.0142 (J)		
7/12/2016	<0.03	0.0037 (J)	<0.03	0.0141 (J)		
9/1/2016	0.0021 (J)	0.0033 (J)	<0.03	0.0158 (J)		
10/24/2016	<0.03					
10/25/2016		0.0029 (J)	<0.03	0.016 (J)		
12/7/2016	<0.03	0.0029 (J)	<0.03			
12/8/2016				0.0144 (J)		
1/26/2017	<0.03	0.0028 (J)	<0.03	0.0136 (J)		
3/22/2017		0.0025 (J)	<0.03			
3/23/2017	0.0016 (J)			0.0151 (J)		
5/24/2017	0.0029 (J)	0.0029 (J)				
5/25/2017			0.0011 (J)	0.0154 (J)		
4/3/2018	0.0026 (J)	0.0028 (J)	<0.03	0.013 (J)		
6/5/2018				0.013 (J)		
6/6/2018	0.0013 (J)	0.0031 (J)	<0.03			
10/3/2018	0.0017 (J)	0.0026 (J)	<0.03	0.015 (J)		
3/14/2019	<0.03			0.011 (J)		
3/15/2019		0.0041 (J)	0.0011 (J)		0.025 (J)	0.002 (J)
4/4/2019	0.0009 (J)	0.0032 (J)			0.019 (J)	
4/5/2019			0.00074 (J)	0.0084 (J)		0.0013 (J)
9/24/2019	0.0012 (J)					
9/25/2019		0.0038 (J)	0.0011 (J)	0.015 (J)	0.024 (J)	
9/27/2019						0.0013 (J)
3/2/2020						0.0015 (J)
3/3/2020	0.0084 (J)	0.0047 (J)	0.0012 (J)	0.012 (J)	0.026 (J)	
3/26/2020	0.0061 (J)					
3/27/2020						0.0013 (J)
3/30/2020		0.0041 (J)				
3/31/2020			0.0009 (J)	0.012 (J)		
4/1/2020					0.026 (J)	
6/17/2020					0.023 (J)	
9/15/2020				0.014 (J)		
9/16/2020			0.0012 (J)			
9/17/2020	0.0094 (J)	0.0043 (J)				0.0011 (J)
9/21/2020					0.022 (J)	
2/10/2021		0.0038 (J)				
2/11/2021			0.0013 (J)	0.011 (J)	0.021 (J)	
2/12/2021	0.036					
2/15/2021						0.0011 (J)
3/16/2021	0.032					
3/17/2021		0.0048 (J)				0.0012 (J)
3/18/2021			0.0014 (J)	0.013 (J)	0.026 (J)	
8/18/2021			0.0012 (J)			
8/19/2021	0.0058 (J)	0.0042 (J)		0.013 (J)	0.022 (J)	0.0012 (J)
2/8/2022	0.014 (J)	0.0034 (J)	0.0014 (J)	0.01 (J)	0.022 (J)	0.0011 (J)
Mean	0.01029	0.004043	0.007745	0.01329	0.02327	0.00131
Std. Dev.	0.009755	0.002602	0.00709	0.001993	0.002328	0.0002726
Upper Lim.	0.00947	0.0042	0.015	0.01439	0.02521	0.0015
Lower Lim.	0.002331	0.0029	0.0011	0.01219	0.02133	0.0011

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-23D	MW-33	MW-34D	MW-35	MW-37D
3/14/2019	0.0028 (J)				
4/5/2019	0.0021 (J)				
9/26/2019	0.0023 (J)				
3/2/2020	0.0025 (J)				
4/1/2020	0.0024 (J)	0.0011 (J)			
6/17/2020		0.00097 (J)			
6/18/2020			0.0021 (J)	0.0046 (J)	0.038 (J)
9/17/2020	0.0021 (J)				
9/21/2020		0.00086 (J)		0.0036 (J)	
9/23/2020			0.0011 (J)		0.031
2/11/2021					0.034
2/12/2021	0.0023 (J)	0.0011 (J)			
2/15/2021				0.0043 (J)	
3/12/2021					0.035
3/17/2021	0.0024 (J)				
3/18/2021		0.0012 (J)			
3/19/2021				0.0045 (J)	
8/16/2021			0.001 (J)		
8/18/2021		0.00097 (J)		0.0036 (J)	0.03
8/19/2021	0.0022 (J)				
2/8/2022		0.001 (J)		0.0039 (J)	0.029 (J)
2/9/2022			0.0022 (J)		
2/10/2022	0.0029 (J)				
Mean	0.0024	0.001029	0.0016	0.004083	0.03283
Std. Dev.	0.0002708	0.0001123	0.0006377	0.0004446	0.00343
Upper Lim.	0.002642	0.001162	0.003048	0.004694	0.03755
Lower Lim.	0.002158	0.0008952	0.0001522	0.003473	0.02812

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-18
5/24/2016	<0.0002
7/12/2016	<0.0002
9/1/2016	6E-05 (J)
10/25/2016	4E-05 (J)
12/8/2016	<0.0002
1/26/2017	8E-05 (J)
3/23/2017	9E-05 (J)
5/25/2017	8E-05 (J)
4/3/2018	<0.0002
3/14/2019	<0.0002
3/3/2020	<0.0002
2/11/2021	<0.0002
2/8/2022	<0.0002
Mean	0.00015
Std. Dev.	6.683E-05
Upper Lim.	0.0002
Lower Lim.	6E-05

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-15	MW-21D	MW-22	MW-23D	MW-37D
5/23/2016	<0.01				
7/12/2016	0.0007 (J)				
9/1/2016	<0.01				
10/24/2016	<0.01				
12/7/2016	<0.01				
1/26/2017	<0.01				
3/23/2017	<0.01				
5/24/2017	<0.01				
4/3/2018	<0.01				
3/14/2019	<0.01			<0.01	
3/15/2019		0.045	<0.01		
4/4/2019	<0.01	0.033			
4/5/2019			0.00013 (J)	0.0014 (J)	
9/24/2019	<0.01				
9/25/2019		0.038			
9/26/2019				0.0025 (J)	
9/27/2019			<0.01		
3/2/2020			<0.01	0.003 (J)	
3/3/2020	<0.01	0.025			
3/26/2020	<0.01				
3/27/2020			<0.01		
4/1/2020		0.024		0.0032 (J)	
6/17/2020		0.019			
6/18/2020					0.023
9/17/2020	<0.01		<0.01	0.0026 (J)	
9/21/2020		0.017			
9/23/2020					0.015
2/11/2021		0.016			0.019
2/12/2021	<0.01			0.0039 (J)	
2/15/2021			<0.01		
3/12/2021					0.014
3/16/2021	<0.01				
3/17/2021			<0.01	0.0034 (J)	
3/18/2021		0.016			
8/18/2021					0.0083 (J)
8/19/2021	<0.01	0.018	<0.01	0.0034 (J)	
2/8/2022	<0.01	0.016	<0.01		0.007 (J)
2/10/2022				0.0034 (J)	
Mean	0.009511	0.02427	0.009013	0.00368	0.01438
Std. Dev.	0.002134	0.0101	0.003121	0.002326	0.006125
Upper Lim.	0.01	0.03102	0.01	0.005029	0.0228
Lower Lim.	0.0007	0.01654	0.01	0.002108	0.005969

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-15	HGWC-16	HGWC-17	HGWC-18	MW-22
5/23/2016	0.017	<0.005	<0.005	<0.005		
5/24/2016					<0.005	
7/12/2016	0.0146	<0.005	<0.005	<0.005	0.036	
9/1/2016	0.0137	<0.005	<0.005	0.0014 (J)	0.0347	
10/24/2016	0.0135	0.0012 (J)				
10/25/2016			<0.005	<0.005	0.0282	
12/7/2016	0.01 (J)	0.0041 (J)	<0.005	0.0023 (J)		
12/8/2016					0.0373	
1/26/2017	0.0214	<0.005	<0.005	<0.005	0.0385	
3/22/2017			<0.005	<0.005		
3/23/2017	0.0167	0.0016 (J)			0.0414	
5/24/2017	0.0083 (J)	<0.005	<0.005			
5/25/2017				<0.005	0.019	
4/3/2018		<0.005	<0.005	<0.005	0.029	
4/4/2018	0.012					
6/5/2018					0.038	
6/6/2018	0.014	<0.005	<0.005	<0.005		
10/3/2018	0.0056 (J)	<0.005	<0.005	<0.005	0.017	
3/14/2019	0.0048 (J)	<0.005			0.016	
3/15/2019			<0.005	<0.005		<0.005
4/4/2019		0.00021 (J)	8.9E-05 (J)			
4/5/2019	0.00091 (J)			9.3E-05 (J)	0.0018 (J)	<0.005
9/24/2019	0.0064 (J)	<0.005				
9/25/2019			<0.005	<0.005	0.02	
9/27/2019						<0.005
3/2/2020						<0.005
3/3/2020	0.0045 (J)	<0.005	<0.005	<0.005	0.014	
3/26/2020		<0.005				
3/27/2020						<0.005
3/30/2020	0.0049 (J)		<0.005			
3/31/2020				<0.005	0.019	
9/15/2020					0.059	
9/16/2020				<0.005		
9/17/2020		<0.005	<0.005			0.002 (J)
9/18/2020	0.0045 (J)					
2/10/2021			<0.005			
2/11/2021	0.0072 (J)			<0.005	0.023	
2/12/2021		<0.005				
2/15/2021						<0.005
3/16/2021		<0.005				
3/17/2021	0.01 (J)		<0.005			<0.005
3/18/2021				<0.005	0.019 (J)	
8/18/2021	0.0077			<0.005		
8/19/2021		<0.005	<0.005		0.01	<0.005
2/8/2022		<0.005	<0.005	<0.005	0.0082	<0.005
2/9/2022	0.0047 (J)					
Mean	0.009639	0.004386	0.004766	0.004466	0.02448	0.0047
Std. Dev.	0.005295	0.001446	0.001072	0.001385	0.01416	0.0009487
Upper Lim.	0.01256	0.005	0.005	0.005	0.03229	0.005
Lower Lim.	0.006717	0.0041	8.9E-05	0.0023	0.01667	0.005

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	MW-33	MW-34D	MW-35
4/1/2020	0.011		
6/17/2020	0.014		
6/18/2020		0.0025 (J)	0.014
9/21/2020	0.041		0.037
9/23/2020		<0.005	
2/12/2021	0.011		
2/15/2021			0.01
3/18/2021	0.028		
3/19/2021			0.016 (J)
8/16/2021		<0.005	
8/18/2021	0.014		0.014
2/8/2022	0.0078		0.0083
2/9/2022		<0.005	
Mean	0.01811	0.004375	0.01655
Std. Dev.	0.01199	0.00125	0.01042
Upper Lim.	0.03151	0.005	0.02994
Lower Lim.	0.00655	0.0025	0.006285

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 4/26/2022 4:55 PM View: Appendix IV

Plant Hammond Client: Southern Company Data: Hammond AP-2

	HGWC-14	HGWC-17	HGWC-18	MW-33	MW-34D	MW-35
5/23/2016	0.000306 (J)	<0.001				
5/24/2016			<0.001			
7/12/2016	0.0003 (J)	0.0001 (J)	0.0002 (J)			
9/1/2016	0.0003 (J)	<0.001	<0.001			
10/24/2016	0.0004					
10/25/2016		<0.001	<0.001			
12/7/2016	0.0003 (J)	<0.001				
12/8/2016			<0.001			
1/26/2017	0.0003 (J)	<0.001	<0.001			
3/22/2017		0.0001 (J)				
3/23/2017	0.0003 (J)		0.0002 (J)			
5/24/2017	0.0003 (J)					
5/25/2017		0.0001 (J)	0.0002 (J)			
4/3/2018		<0.001	0.00014 (J)			
4/4/2018	0.00028 (J)					
6/5/2018			0.00016 (J)			
6/6/2018	0.00029 (J)	<0.001				
10/3/2018	0.00029 (J)	<0.001	<0.001			
3/14/2019	0.00028 (J)		<0.001			
3/15/2019		<0.001				
4/5/2019	0.00028 (J)	0.00013 (J)	0.00014 (J)			
9/24/2019	0.0003 (J)					
9/25/2019		0.00012 (J)	0.00019 (J)			
3/3/2020	0.00026 (J)	0.00011 (J)	0.00013 (J)			
3/30/2020	0.00028 (J)					
3/31/2020		0.00014 (J)	0.00015 (J)			
4/1/2020				0.00029 (J)		
6/17/2020				0.00028 (J)		
6/18/2020					0.00015 (J)	0.00013 (J)
9/15/2020			0.00016 (J)			
9/16/2020		<0.001				
9/18/2020	0.00028 (J)					
9/21/2020				0.00029 (J)		<0.001
9/23/2020					<0.001	
2/11/2021	0.00026 (J)	<0.001	<0.001			
2/12/2021				0.00025 (J)		
2/15/2021						<0.001
3/17/2021	0.00034 (J)					
3/18/2021		<0.001	0.00016 (J)	0.00031 (J)		
3/19/2021						<0.001
8/16/2021					<0.001	
8/18/2021	0.00027 (J)	<0.001		0.0004 (J)		<0.001
8/19/2021			0.0002 (J)			
2/8/2022		<0.001	<0.001	0.00025 (J)		<0.001
2/9/2022	0.00025 (J)				<0.001	
Mean	0.0002936	0.0007048	0.0005252	0.0002957	0.0007875	0.000855
Std. Dev.	3.129E-05	0.0004279	0.0004218	5.094E-05	0.000425	0.0003552
Upper Lim.	0.0003	0.001	0.001	0.0003547	0.001	0.001
Lower Lim.	0.00027	0.00012	0.00016	0.0002389	0.00015	0.00013

FIGURE I.

Appendix IV Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:57 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	**HGWC-18**	**-0.008288**	**-88**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix IV Trend Tests - All Results

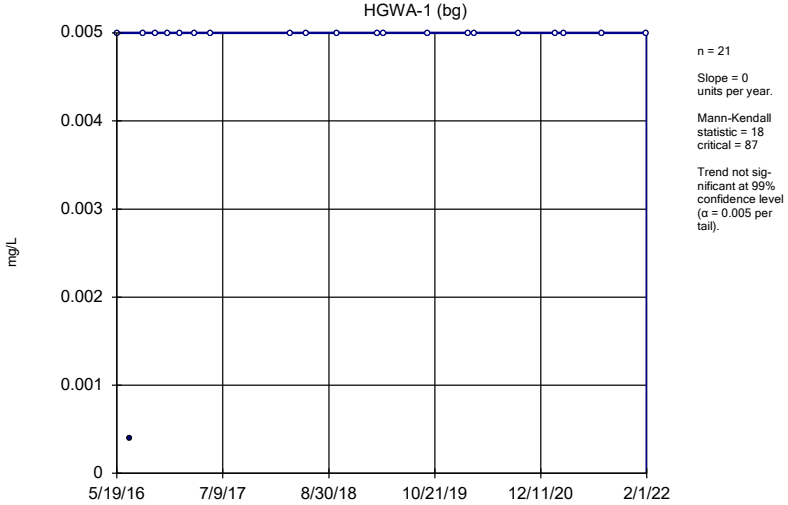
Plant Hammond Client: Southern Company Data: Hammond AP-2 Printed 4/26/2022, 4:57 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	HGWA-1 (bg)	0	18	87	No	21	95.24	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-2 (bg)	-0.0008265	-47	-87	No	21	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-4 (bg)	0	-81	-87	No	21	71.43	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-42D (bg)	0	3	21	No	8	87.5	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-43D (bg)	0	0	21	No	8	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-44D (bg)	0	0	21	No	8	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-5 (bg)	0	-14	-87	No	21	23.81	n/a	n/a	0.01	NP
Cobalt (mg/L)	HGWA-6 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	**HGWC-18**	**-0.008288**	**-88**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Cobalt (mg/L)	MW-33	-0.001496	-2	-21	No	8	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	MW-35	0.001103	1	14	No	6	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-1 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 18
critical = 87

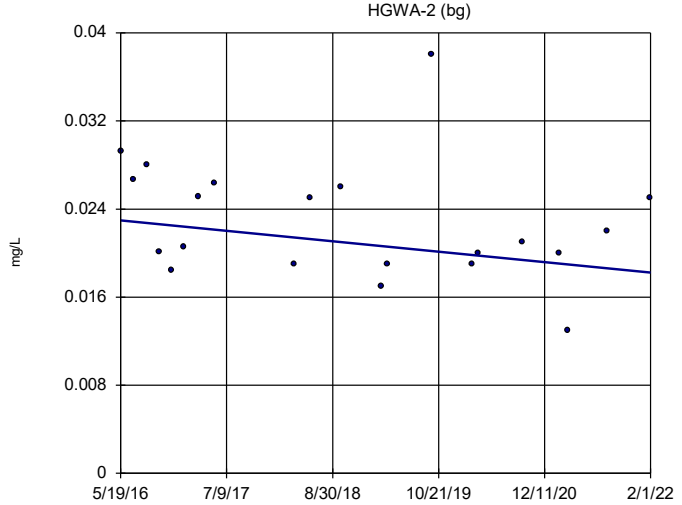
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 21

Slope = -0.0008265 units per year.

Mann-Kendall statistic = -47
critical = -87

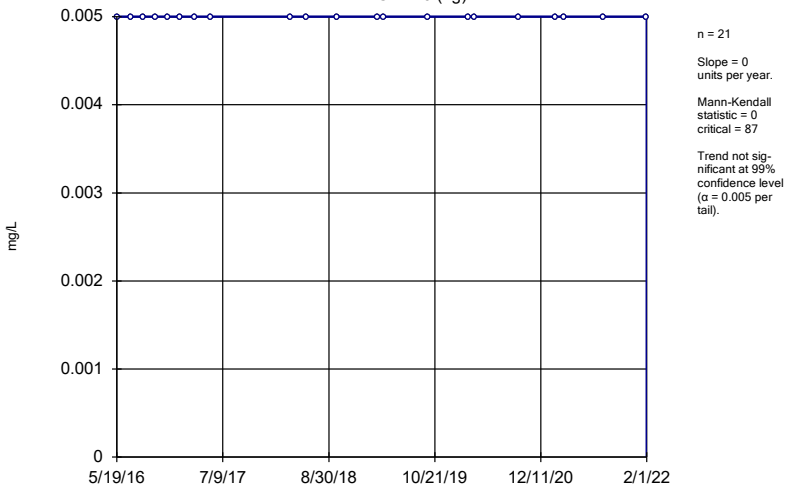
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-3 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 87

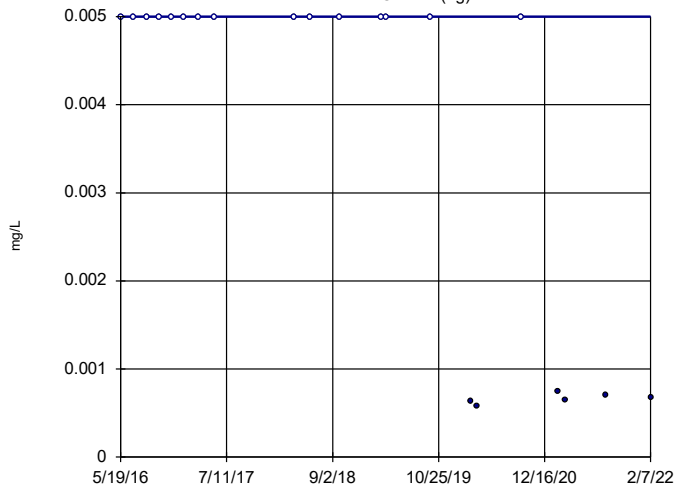
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-4 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = -81
critical = -87

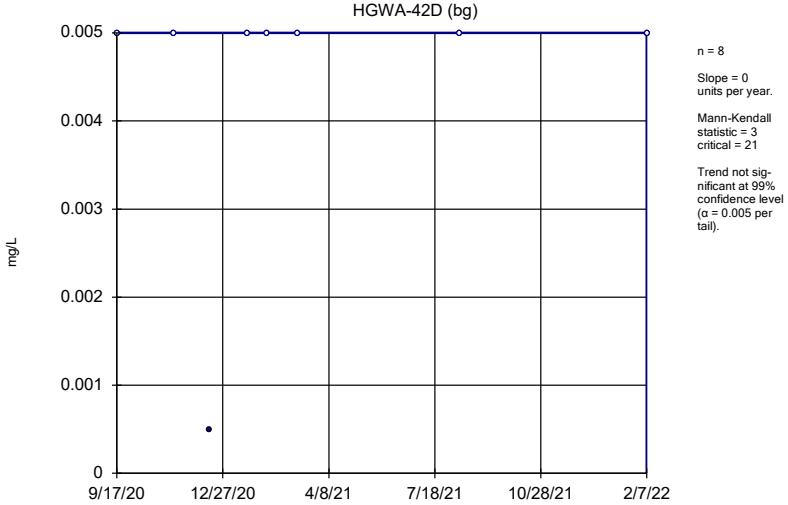
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-42D (bg)



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 21

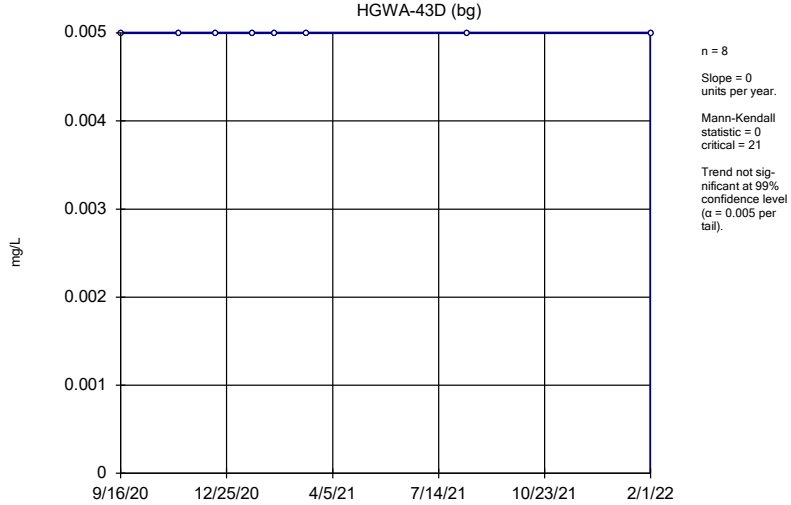
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-43D (bg)



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 21

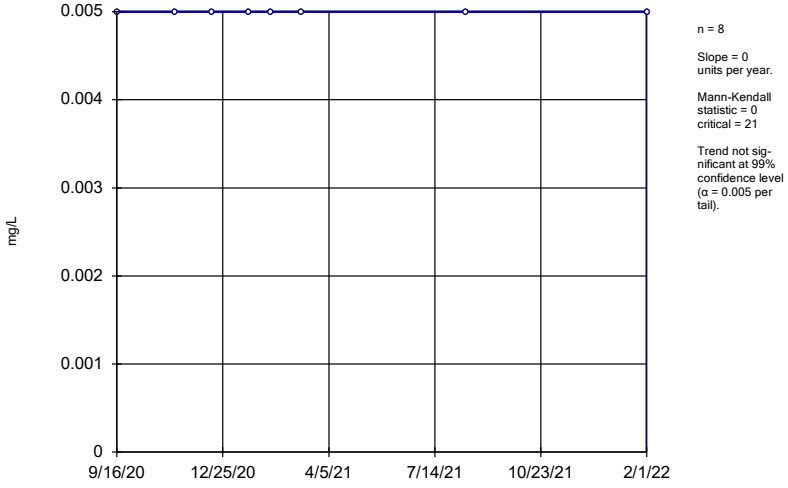
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-44D (bg)



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 21

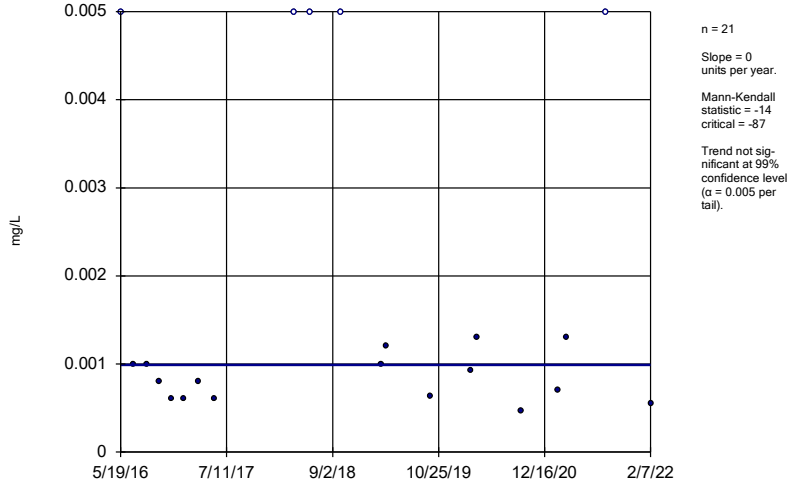
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-5 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = -14
critical = -87

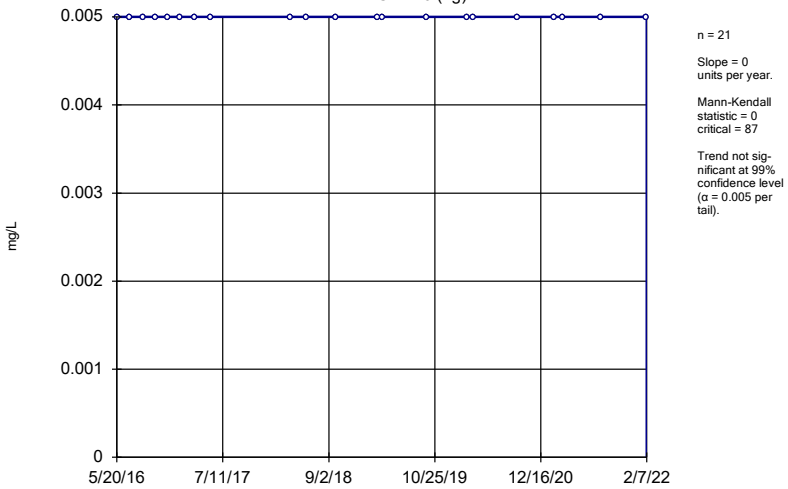
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-6 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 87

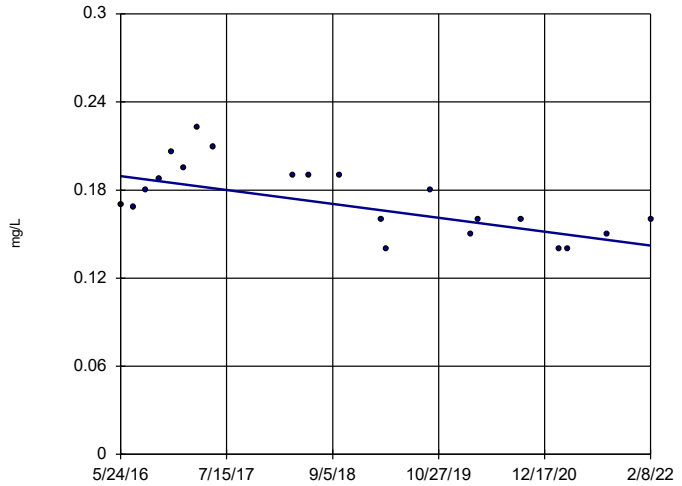
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-18



n = 21

Slope = -0.008288 units per year.

Mann-Kendall statistic = -88
critical = -87

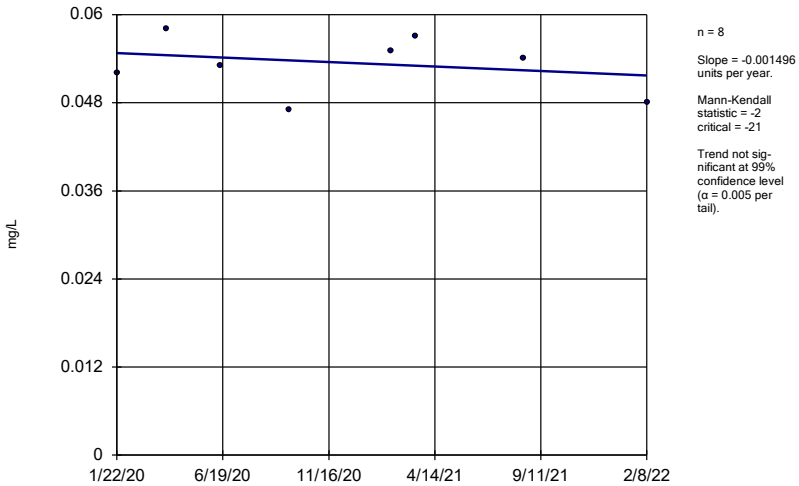
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-33



n = 8

Slope = -0.001496 units per year.

Mann-Kendall statistic = -2
critical = -21

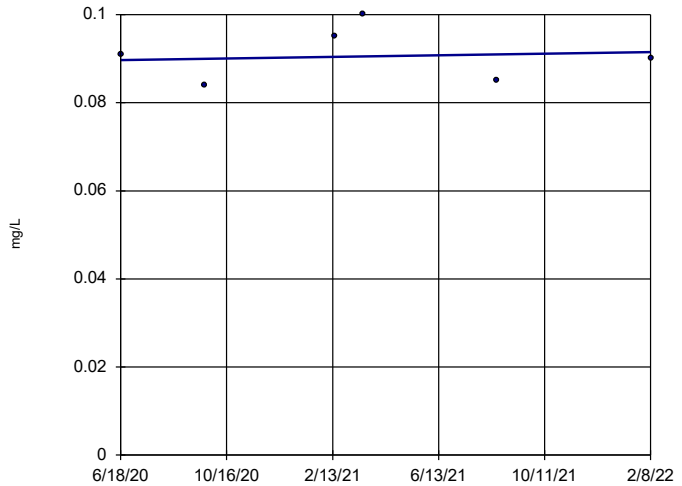
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-2

Sanitas™ v.9.6.32j Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-35



n = 6

Slope = 0.001103 units per year.

Mann-Kendall statistic = 1
critical = 14

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 4/26/2022 4:56 PM View: Appendix IV Trend Tests
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