2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ALABAMA POWER COMPANY
PLANT GORGAS
CCR LANDFILL

January 31, 2021

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering

CERTIFICATION STATEMENT

This *Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Gorgas CCR Landfill* has been prepared in accordance with the United States Environmental Protection Agency's coal combustion residual rule (40 CFR Part 257, Subpart D) and ADEM Admin. Code Ch. 335-13-15 under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.

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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2020 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2020 semi-annual assessment groundwater monitoring activities at the Plant Gorgas CCR Landfill and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Gorgas CCR Landfill is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

The CCR unit began the monitoring period in assessment monitoring pursuant to § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6). Statistically significant increases (SSIs) of Appendix III constituents over background were identified in the results of the first detection monitoring event, and assessment monitoring was initiated in January 2018. Statistically significant levels (SSL) of the Appendix IV constituent lithium above groundwater protection standards (GWPS) were identified in one well while in assessment monitoring. Consequently, an Alternate Source Demonstration (ASD) was submitted to ADEM for lithium SSLs above the GWPS in January 2019.

Alabama Power Company (APC) completed an Assessment of Corrective Measures (ACM) report submitted to ADEM in June 2019 to address the occurrence of constituents in groundwater at statistically significant levels (SSLs) at the Plant Gorgas Ash Pond and Gypsum Pond. In February 2020, APC revised the ACM to include the Bottom Ash Landfill (BALF), CCR Landfill, and Gypsum Landfill.

The following summarizes results and activities conducted during the annual monitoring period of 2020:

- APC amended the Plant Gorgas Assessment of Corrective Measures (ACM) prepared under § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and ADEM Administrative Order No. 18-096-GW to include the CCR Landfill in February 2020.
- Submitted the revised Groundwater Monitoring Plan on April 15, 2020, responded to ADEM comments and resubmitted the Groundwater Monitoring Plan on August 24, 2020.
- Statistical evaluations of the April and July 2020 assessment monitoring data did not identify Statistically Significant Levels (SSL) of Appendix IV constituents above the GWPS. In accordance

with § 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), APC will continue assessment monitoring.

- Submitted the Semi-Annual Remedy Selection and Design Progress Report on June 8, 2020, which included the CCR Landfill. An Alternate Source Demonstration for lithium over the GWPS was submitted to ADEM in January 2019. Pending ADEM review and approval of the ASD, APC will continue assessment monitoring.
- Submitted 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report on July 31, 2020.
- Continued the evaluation of monitored natural attenuation (MNA) and geochemical manipulation as potential groundwater remediation technologies for the Site as described in the Semi-Annual Remedy Selection and Design Progress Reports for the Assessment of Corrective Measures submitted in June and December 2020.
- Submitted the Semi-Annual Remedy Selection and Design Progress Report on December 12, 2020.
- Pursuant to 40 CFR 257.90(e)(6), Executive Summary Table, Monitoring Period Summary, describes the status of groundwater monitoring and corrective action during the monitoring period for this report.

The CCR unit concluded the monitoring period in assessment monitoring, and APC is evaluating potential groundwater remedies identified in the ACM report submitted to ADEM in June 2019 (revised February 2020 to include the CCR Landfill). The following monitoring-related activities are planned for the CCR unit during the first 2021 semi-annual monitoring period:

- Collect additional data to further evaluate remedies selected as feasible for the remediation of lithium as described in the ACM.
- Perform a conceptual-level feasibility study of potentially viable corrective actions:
  - Show where the viable corrective actions could be applied on Site maps and on geologic sections.
  - Compare site-specific corrective actions to the evaluation criteria in the CCR Rule, with emphasis on deficiencies that could eliminate a corrective action from further consideration.
  - Determine data gaps and develop plans to collect additional data as needed.
- Submit the next Semi-Annual Remedy Selection and Design Progress Report by June 12, 2021.

- Conduct the first semi-annual assessment monitoring event in the spring of 2021 and submit the semi-annual groundwater monitoring and corrective action report summarizing the findings to ADEM by July 31, 2021.

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Monitoring Period Summary
Plant Gorgas - CCR Landfill

Assessment Monitoring Inintiated: January 15, 2018
Monitoring Period: January 1 - December 31, 2020
Beginning Status: Assessment
Ending Status: Assessment

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	NA
Calcium	NA
Chloride	MW-6, MW-7, MW-8
Fluoride	NA
pH	MW-6, MW-7, MW-8
Sulfate	NA
TDS	NA

Appendix IV SSLs

No Significant Results

* See the attached report for further details regarding statistical exceedances and alternate source demonstrations.

Assessment of Corrective Measures & Groundwater Remedy

Assessment of Corrective Measures

Date Initiated: January 13, 2019
Date Complete: June 12, 2019
Revised to Include the CCR Landfill: February 28, 2020
Public Meeting Date: July 1, 2020

Groundwater Remedy

Selected During Period: No
Selection Date: Not yet selected
Initiated During Period: No
Ongoing During Period: No

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ABBREVIATIONS

ACM	Assessment of Corrective Measures
ADEM	Alabama Department of Environmental Management
AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	Alabama Power Company Environmental Laboratory
BGS	below ground surface
CCR	Coal Combustion Residual
CEC	cation exchange capacity
CFR	Code of Federal Regulations
COC	chain of custody
COI	constituents of interest
CSM	conceptual site model
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
GWPS	Groundwater Protection Standard(s)
LCL	Lower Confidence Limit(s)
m	meter
mg/L	milligram per liter
MNA	monitored natural attenuation
MSL	mean sea level
MW-	denotes “Monitoring Well”
NCDS	National Coal Data System
NELAP	National Environmental Laboratory Accreditation
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SEM	scanning electron microscopy
SM	Standard Method(s)
SSE	selective sequential extraction
SSI	statistically significant increase

SSL	statistically significant level
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	Unites States Geological Survey
UTLs	Upper Tolerance Limits
XRD	X-ray diffraction
XRF	X-ray fluorescence

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2020 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2020 semi-annual assessment groundwater monitoring activities at the Plant Gorgas CCR Landfill and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Gorgas CCR Landfill is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

2.0 SITE LOCATION AND DESCRIPTION

The Alabama Power Company (APC) William Crawford Gorgas Electric Generating Plant (Plant Gorgas) is located in southeastern Walker County, Alabama, approximately 15 miles south of Jasper, at 460 Gorgas Road, Parrish, AL 35580. Based on visual inspection of USGS topographic quadrangle maps and GIS plant boundary files provided by SCS, the plant occupies portions of Sections 7, 8, 9, 16, 17, 18, 19, 20, 21, 28 and 29, Township 16 South, Range 6 West and Section 12, 13 and 24, Township 16 South, Range 7 West (USGS, 1975; USGS, 1983).

Plant Gorgas CCR Landfill is located east and northeast of the main power generation facility and is bordered to the north by Highway 269 and to the south by the Mulberry Fork of the Black Warrior River. **Figure 1**, **Site Location Map**, depicts the location of the Plant and landfill with respect to the surrounding area.

2.1 GEOLOGY AND HYDROGEOLOGY

2.1.1 Physical Setting

Plant Gorgas is in the Black Warrior River basin, an area typified by moderate relief, with river and stream valleys having dendritic drainage patterns. Elevations at the Site range from approximately 260 feet above mean sea level (MSL) near the Mulberry Fork and Baker Creek to over 500 feet above MSL along a northwest trending ridge approximately 1,000 feet northwest of the plant and in upland areas on the western part of the property. Generally, near the landfill, the land surface slopes from north to south and towards the Mulberry Fork of the Black Warrior River. **Figure 2**, **Site Topographic Map**, provides the topography of the Site.

Two natural surface water bodies drain Plant Gorgas property. Baker Creek flows from northwest to southeast through the central portion of the plant before draining into the Mulberry Fork of the Black Warrior River. The Mulberry Fork flows from east to west as it bends around the southern border of the plant property.

2.1.2 Geology and Hydrogeology

Plant Gorgas lies in the Warrior Basin physiographic region (Sapp and Emplaincourt, 1975), a late Paleozoic basin formed as a result of flexure and sediment loading associated with Appalachian and Ouachita orogenies. The bedrock geology is dominated by clastic sedimentary rocks of the Lower Pottsville

Formation. Deeper stratigraphy is marked by carbonates, shales, chert, and sandstones of Mississippian to Cambrian in age (Raymond et al., 1988). Plant Gorgas is directly underlain by rocks belonging to the Pratt Coal Group (Ward II et al., 1989). In general, the Pratt Group consists of mudstone, shale, fine-grained sandstone, and interbedded coal. **Figure 3**, **Site Geologic Map**, illustrates the surface geology at the Site and neighboring areas.

Plant Gorgas is directly underlain by rocks belonging to the Pratt Coal Group (Ward II et al., 1989) of the Upper Pottsville Formation. In general, the Pratt Coal Group consists of mudstone, shale, fine-grained sandstone, and interbedded coal in fining-upward sequences. The Pratt Coal Group generally contains three named coal seams, each separated by 25 to 50 feet of intra-burden. In descending order, they are the Pratt, Nickel Plate, and American coal seams. Locally, Pratt Coal Group strata gently dip (0.5-1.0 degrees) to the south and south-southwest.

Strip mining was conducted over a large portion of the area down to the American Seam. As a result, the overburden around the CCR Landfill is dominated by backfilled mine overburden (mine spoils) and is characterized by weathered shale and sandstone boulders with lenses of fine sediments and small amounts of coal fragments and coarse sediments. Geologic logs generated during various on-site investigations indicate that the depth to rock varies significantly, ranging from as little as 5 feet (un-mined areas) to as much as 155 feet below ground surface (BGS). Beneath the CCR Landfill, subsurface geology is likely characterized by thin remnants of mine backfill and un-mined portions of the Pratt Coal Group consisting predominantly of mudstone and sandstone. **Figure 4a**, **Geologic Cross-Section A-A'** and **Figure 4b**, **Geologic Cross-Section B-B',** illustrates the geologic layering beneath the Site.

Two water-bearing zones are present beneath the Site: (1) the mine overburden/top-of-rock interface, and (2) the underlying Pottsville aquifer. The mine overburden/top of rock interface is usually a thin zone of saturation overlying rock and is not laterally continuous across all portions of the Site. Depth to this zone generally ranges from 100 to 115 feet beneath the Site.

The Pottsville aquifer system is the primary aquifer in Walker County. Although on a regional scale there are other aquifer systems in the vicinity of Plant Gorgas, the Pottsville aquifer system is the most significant. The nearest exposure of the Valley and Ridge aquifer system occurs in central Jefferson County, approximately 25 miles east of Plant Gorgas. The nearest exposure of the Tuscaloosa aquifer system occurs

in northwesternmost Walker County, approximately 30 miles northwest of Plant Gorgas. The Tuscaloosa aquifer system is not considered a primary source of groundwater in Walker County (Stricklin, 1989).

The Pottsville aquifer system is composed primarily of Pennsylvanian-aged sandstones, shales, conglomerates, and coal. Groundwater flow primarily occurs through coal seams or rock fabric discontinuities such as bedding planes and fractures. Groundwater in the Pottsville aquifer system is commonly regarded as confined due to large permeability contrasts within the aquifer (Stricklin, 1989). Recharge to the Pottsville aquifer system is largely through infiltration of precipitation and to a lesser extent, downward seepage of river water at hydraulically favored locations. Recharge is accommodated largely by fracture enhanced permeability. Major recharge zones to the Pottsville aquifer are related to major geologic structures such as large fault zones or along systematic fold axes (Pashin, 2007). Although the Pottsville aquifer system is the primary aquifer in Walker County, groundwater use is relatively limited. According to O'Rear et al., 1972, groundwater use accounted for approximately 15% of total water use in Walker County in 1966. By 2005, groundwater use had declined to less than 1% of total water use in Walker County, or 1.14 million gallons per day (mgd) of groundwater out of a total water use of 969.5 mgd (USGS, 2005).

2.1.3 Pottsville Formation – Rock Chemistry

Published data indicate that elevated arsenic concentrations occur in the Southern Appalachian coal strata where Site monitoring wells are screened. Numerous publications document elevated trace metals in Pottsville and Pottsville coal strata (Kolker et al., 1999, Diehl et al., 2004, Goldhaber et al., 2002). For instance, according to the USGS National Coal Data System (NRCDS), the average concentration of arsenic (72 parts per million (ppm)) in the Pottsville coal strata is three times that of the average of other coal basins (Bragg et al., 1997). Of the U.S. coal analyses for arsenic that are at least three standard deviations above the mean, approximately 90% are from the coal fields of Alabama (Diehl et al., 2004). The United States Geological Survey (USGS) maintains an inventory of coal quality that includes trace metal concentration data. It shows arsenic concentrations range from 1.08 milligrams per kilograms (mg/kg) to 611.0 mg/kg with a mean of 47 mg/kg for Walker County (USGS Coal Quality Database).

Similarly, 75 Pratt Coal Group samples from the Pratt, Nickel Plate, and American coal seams analyzed by the USGS and inventoried in the USGS National Coal Data System (NRCDS) showed the following ranges of other trace metals:

- Boron – 6.3 to 83.6 ppm (average of 35 ppm).
- Cobalt – 1.6 to 19.8 ppm (average of 8 ppm).
- Molybdenum – 0.8 to 22.2 ppm (average of 5 ppm).
- Lithium – 1.4 to 128 ppm (average of 28 ppm).

Bulk geochemical analyses of Pottsville stratigraphy from the Site and of the Pratt and American coal seams from Plant Gorgas were conducted on recovered core. The data reflect arsenic concentrations between 4.9 mg/kg and 32.6 mg/kg in siltstone/mudstones and concentrations of 28.9 and 384.4 mg/kg in two coal seams analyzed. The average arsenic concentration was roughly 34 mg/kg in these samples tested, which is in good agreement with data observed in the USGS Coal Quality Database.

Similarly, 17 Pratt Coal Group samples collected from the Site provided the following ranges of other trace metals:

- Arsenic – 0 to 384.1 ppm (average of 43.8 ppm).
- Boron – 20.8 to 114 ppm (average of 49 ppm).
- Cobalt – 2.79 to 31.2 ppm (average of 18.6 ppm).
- Molybdenum – 0 to 4.38 ppm (average of 1.06 ppm).

Trace metal enrichment and pyrite origins have been linked to post-depositional (post-coalification) deformation and trace metal laden hydrothermal fluids upwelling during Alleghanian tectonism. Diehl et al., (2004) and Goldhaber et al., (2002) describe “high-pyrite” coals as a source of elevated arsenic and other trace metals. In these publications, pyrite occurrence is observed within coal banding, woody cellular fill structures, mineral overgrowths and structural fills such as veins and microfaults.

2.1.4 Uppermost Aquifer

The principal aquifer system from a local and regional perspective is the Pottsville aquifer. The Pottsville aquifer is also the uppermost aquifer beneath the Site. In the Pottsville aquifer, two types of secondary porosity were observed to yield groundwater: (1) fractured intervals and (2) bedding plane weaknesses associated with fissile, siderite-banded, iron-claystone sequences. Fractured intervals are sporadic across the Site and tend to occur with greater density in the upper 100 feet of rock. The upper portions of the Pottsville aquifer system beneath the proposed disposal facilities indicate unconfined to confined, fractured, and extremely anisotropic conditions. The Pottsville aquifer system functions as a series of confined to

semi-confined water producing zones (aquifers) because of the large permeability contrasts within the strata (Stricklin, 1989). Depth to groundwater varies significantly across the Site and is wholly dependent on encountering a fractured interval or zone of fissile, iron-claystone.

Monitoring wells installed at the mine overburden/top of rock interface monitor the quality of water passing to the Pottsville Formation. This water quality itself can be highly variable and enriched in trace metals owing to the heterogeneity of mine backfill deposits and mineralogy (e.g., clay minerals and sulfides). Based on published data, groundwater quality produced from the Pottsville Formation can be characterized by high concentrations of sulfate, iron, and other trace metals (Jennings and Cook, 2010). Trace metals in Pottsville Formation groundwater are associated with sulfide minerals contained in organic-rich strata (e.g., mudstones and coal seams) and siliceous/carbonate healed fractures and joints. Trace element enrichment is likely the result of migrating hydrothermal fluids generated during the late Paleozoic Allegheny orogeny (Diehl et al., 2004). Arsenic, antimony, molybdenum, selenium, copper, thallium, and mercury are elevated in Warrior Basin coal strata (Goldhaber et al., 2002).

2.1.5 Flow Interpretation

Groundwater flow at the Site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations north of the Site to lower topographic elevations to the south and generally, towards the Mulberry Fork of the Black Warrior River. Mine spoil layering and complex Pottsville Formation lithofacies contribute to the vertical and horizontal heterogeneity present within the aquifer system and overlying saturated mine spoils. This heterogeneity focuses groundwater flow along more permeable pathways, such as parallel to coal seams and bedding plains, or along vertical or sub-vertical discontinuities in the rock fabric. A potentiometric surface map for the Site is presented in a later section.

2.2 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Gorgas has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The certified groundwater monitoring system for the Plant Gorgas CCR Landfill monitors groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps. All groundwater monitoring wells were designed and

constructed using "Design and Installation of Groundwater Monitoring Wells in Aquifers," ASTM Subcommittee D18.21, as a guideline.

2.2.1 Monitoring Wells

Monitoring well locations for the CCR Landfill are presented on **Figure 5**, **Monitoring Well Location Map**. **Table 1**, **Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Gorgas CCR Landfill.

2.2.1.1 Upgradient Wells

Data used to establish background water quality or selection of upgradient wells include (1) review of groundwater elevation data and potentiometric surface contour maps to determine groundwater flow direction and (2) a screening of Appendix III CCR indicator parameters for apparently elevated concentrations.

Monitoring well locations MW-1 through MW-4 serve as upgradient locations for the CCR Landfill. Upgradient wells are screened within the same hydrostratigraphic interval as downgradient locations and are representative of background groundwater quality at the Site. Groundwater generally flows from higher topographic elevations north of the site to lower topographic elevations to the south. Upgradient wells are located north of the CCR Landfill as determined by water level monitoring and potentiometric surface maps constructed for the site.

2.2.1.2 Downgradient Wells

Monitoring well locations MW-5 through MW-8 serve as downgradient locations for the Gorgas CCR Landfill. Downgradient locations are located lateral to and south of the CCR Landfill as determined by water level monitoring and potentiometric surface maps.

2.2.1.3 Piezometers

There are currently no piezometers installed in the groundwater monitoring well network.

2.2.1.4 Monitoring Variance

The groundwater monitoring program at the Site is operating under a Variance granted by ADEM on April 15, 2019, to conform State monitoring requirements under the CCR rule to Federal requirements. The variance:

1. Retains boron as an Appendix III detection monitoring parameter and excludes it as an Appendix IV assessment monitoring parameter.
2. Authorizes the use of Federally-published groundwater protection standards (GWPS) of 0.006 milligrams per liter (mg/L) for cobalt; 0.015 mg/L for lead; 0.040 mg/L for lithium; and 0.100 mg/L for molybdenum in lieu of background where those levels are greater than background levels.

2.2.2 Groundwater Monitoring History

Background groundwater monitoring was performed at the Gorgas CCR Landfill from April 2016 through October 2017. Semi-annual compliance monitoring began in November 2017.

2.2.2.1 Available Monitoring Data

In accordance with §257.94(b) and ADEM Admin. Code r. 335-13-15-.06(5)(b), eight independent samples were collected from each upgradient and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to October 17, 2017. Background sampling was performed over the period of April 2016 to October 2017. Groundwater sampling for the first detection monitoring event after the background period was performed in August and November 2017.

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, APC initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in February 2018, within 90 days of initiating the assessment monitoring program. Semi-annual assessment sampling has continued with sampling events in May and November of 2018 and April-May and October of 2019.

Tables summarizing analytical data from all previous groundwater monitoring events are included within **Appendix A**, **Groundwater Analytical Data**.

2.2.2.2 Historical Groundwater Flow

Historical potentiometric data from the Gorgas CCR Landfill show that groundwater flow from higher topographic elevations north of the Site to lower topographic elevations to the south and generally towards the Mulberry Fork of the Black Warrior River. Mine spoil layering and complex Pottsville Formation lithofacies contribute to the vertical and horizontal heterogeneity within the aquifer system and overlying saturated mine spoils. This heterogeneity focuses groundwater flow along more permeable pathways, such

as parallel to coal seams and bedding plains, or along vertical or sub-vertical discontinuities in the rock fabric. Thus, groundwater flow paths across the Site may be tortuous.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 0.5 to 7 feet are typical at the Gorgas CCR Landfill. These fluctuations are consistent in monitoring wells across the Site indicating a relatively uniform response to rainfall events.

2.2.3 Groundwater Sampling and Analysis

As required by § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities during the preceding year. The CCR Landfill entered an assessment monitoring program pursuant to 40 CFR §257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a) in January 2018. Statistical evaluations of 2018 assessment monitoring data identified statistically significant increases (SSI) of Appendix III and statistically significant levels (SSL) of the Appendix IV constituent lithium above the GWPS. An alternate source demonstration (ASD) was prepared that demonstrated the lithium SSL was not caused by a release from the CCR Landfill. Therefore, in accordance with § 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), the Site remained in assessment monitoring during 2020.

2.2.3.1 Sampling Event Summary

Semi-annual assessment monitoring sampling events occurred in April and July 2020. Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during each assessment monitoring event. Analytical data from the groundwater monitoring events are included as **Appendix B**, **Laboratory and Field Records**, in accordance with the requirements of § 257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

2.2.3.2 Groundwater Sample Collection

Prior to recording water levels and collecting samples each well was opened and allowed to equilibrate to atmospheric pressure. Within a 24-hour period, depths to groundwater were measured to the nearest 0.01 foot with an electronic water level indicator with depth referenced from the top of the inner PVC well casing. Groundwater elevations were calculated by subtracting the depth to groundwater from surveyed top-of-casing (TOC) elevations.

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with §257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant

Gorgas are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures. In this procedure, field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) are measured to determine stabilization and groundwater samples are collected when the following stabilization criteria are met:

- 0.2 standard units for pH.
- 5% for specific conductance.
- 0.2 Mg/L or 10% for DO > 0.5 mg/l (whichever is greater).
- Turbidity measurements less than 5 NTU.
- Temperature and ORP – record only, no stabilization criteria.

During purging and sampling a SmarTroll instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol. Field data recorded in support of groundwater sampling activities for the monitoring events are included in **Appendix B**, **Laboratory and Field Records**.

2.2.3.3 Sample Preservation and Handling

Groundwater samples were collected within the designated size and type of laboratory-supplied containers required for specific parameters. Sample bottles were pre-preserved by the laboratory.

Where temperature control was required, samples were placed in an ice-packed cooler and cooled to less than 6 °C immediately after collection. Blue ice or other cooling packs were not used for cooling samples. An ice-packed cooler was on hand when samples were collected.

2.2.3.4 Chain of Custody

A COC record was used to track sample possession from the time of collection to the time of receipt at the laboratory. All samples were handled under strict COC procedures beginning in the field. COC records are included with the analytical laboratory reports included in **Appendix B**.

2.2.3.5 Laboratory Analysis

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama or Eurofins TestAmerica of Pensacola, Florida and St. Louis, Missouri. Both APCEL and Eurofins TestAmerica are accredited by National Environmental Laboratory Accreditation Program (NELAP) and

maintain a NELAP certification for all parameters analyzed. **Table 2, Monitoring Parameters and Reporting Limits**, lists assessment monitoring constituents analyzed at the Site. Groundwater data and COC records for the monitoring events are presented in **Appendix B**.

3.0 GROUNDWATER DATA EVALUATION

3.1 GROUNDWATER ELEVATION DATA EVALUATION

Groundwater levels from monitoring wells serving the Plant Gorgas CCR Landfill, CCR Bottom Ash Landfill, and Gypsum Landfill are used to construct potentiometric surface contour maps. Groundwater levels and TOC elevations were used to calculate groundwater elevation and develop the potentiometric surface elevation contour map. During the April 2020 sampling event, depths to water ranged from 20.74 to 153.79 feet below TOC and groundwater elevations ranged from 417.81 to 298.88 feet below MSL. During the July 2020 sampling event, depths to water ranged from 22.19 to 154.90 feet below TOC and groundwater elevations ranged from 416.93 to 297.19 feet below MSL. **Figure 6**, **Potentiometric Surface Contour Map (April 6, 2020)** and **Figure 7**, **Potentiometric Surface Contour Map (July 13, 2020)** depict groundwater elevations and inferred groundwater flow direction from higher elevation to lower. As shown on **Figures 6** and **7**, the general direction of groundwater flow is lateral to the southeast, consistent with historic observations. All available groundwater elevation data recorded since 2016 have been tabulated and included in **Table 3**, **Groundwater Elevation Summary.**

3.2 HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS

Because the geology at the CCR Landfill is not homogeneous or isotropic with respect to groundwater flow, groundwater velocity calculations using derivations of Darcy's Law, or other methods, will not fully represent the spatial variability across the site. Groundwater flow velocity calculations are provided as a general estimate of groundwater flow velocity at the site based on available information and assumptions described below.

The hydrogeologic characteristics of mine spoils and fractured rock can produce preferential groundwater flow paths, so groundwater velocity is much more variable than in uniform porous media such as sand. These flow paths correspond to more permeable lenses in mine spoil and fractures, zones of fracture concentration, bedding planes, and other discontinuities in the rock. Therefore, groundwater flow velocity at the Site will be highly variable.

Slug testing provided horizontal hydraulic conductivities for the uppermost aquifer between 5.11×10^{-3} centimeters per second (cm/sec) and 2.47×10^{-4} cm/sec. The average hydraulic conductivity value used in the calculations is 2.83×10^{-3} cm/sec or 8.01 ft/day. An estimated effective porosity of 0.15 is used in the

flow rate calculations. The hydraulic gradient was calculated and shown on **Table 4**, **Horizontal Groundwater Flow Velocity Calculations**.

An estimate of the horizontal groundwater flow velocity was calculated using the commonly-used derivative of Darcy's Law:

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

Where:

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

K = Average permeability of the aquifer $\left(\frac{feet}{day}\right)$

i = Horizontal hydraulic gradient

n_e = Effective porosity

Table 4 presents the estimated horizontal flow velocity calculated using groundwater elevation data from the sampling events in 2020. Darcy's Law provides an approximate horizontal flow velocity because, as stated above, the Site is not homogeneous or isotropic with respect to groundwater flow.

4.0 EVALUATION OF GROUNDWATER QUALITY DATA

4.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every group of 10 well samples. Equipment blank and field blank samples were also collected during each sampling event.

Analytical precision is measured through the calculation of the relative percent difference (RPD) of two data sets generated from a similar source. Here, a comparison of results between samples and field duplicate samples are used as measure of laboratory precision. Where field duplicates are collected, the RPD between the sample and duplicate sample is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2)/2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where the relative percent differences are below 20%, the difference is considered acceptable and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially results in qualified data. **Table 5**, **Relative Percent Difference Calculations**, provides the RPDs for sample and duplicates during the semi-annual monitoring events of 2020. All RPDs were below 20% for the most recent sampling event. Equipment blanks and field blanks were all non-detect for the most recent sampling event. Therefore, no data validation qualifiers were applied to data received.

4.2 STATISTICAL METHODOLOGY AND TESTS

The Sanitas Groundwater statistical software is 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 EPA regulations. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

4.2.1 Appendix III Evaluation

Intrawell prediction limits, combined with a 1-of-2 verification resample plan, are used to evaluate boron, calcium, fluoride, sulfate, and total dissolved solids (TDS). Interwell prediction limits, combined with a 1-of-2 verification resample plan, are used for chloride and pH to determine whether there has been a statistically significant increase (SSI) over background groundwater quality. Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background to identify statistically SSIs over background. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to identify SSIs.

Groundwater Stats Consulting demonstrated that these test methods were appropriate in the October 2017 Statistical Analysis Plan, which was updated in the September 2019 data screening evaluation. Time series plots were used to screen proposed background data for suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective. Suspected outliers at all wells for Appendix III parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database and deselected prior to construction of statistical limits.

The following adjustments were made:

- No statistical analyses are required on wells and analytes containing 100% non-detects (EPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in the background, simple substitution of one-half the reporting limit is used in the statistical analysis. The reporting limit used for non-detects is the practical quantitation 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.
- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

4.2.2 Appendix IV Evaluation

When in assessment monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are compared to GWPS. Following the Unified Guidance, spatial variation for Appendix III parameters is tested using the ANOVA; this test is not prescribed for Appendix IV constituents. Unlike the statistical evaluation of Appendix III constituents (where single-sample results are compared to the statistical limit), Appendix IV analysis uses the pooled results from each downgradient well to develop a well-specific Confidence Interval that is compared to the statistical limit. The statistical limit is either the Interwell Tolerance limit (i.e. background) calculated using the pool of all available upgradient well data (see Chapter 7 of the Unified Guidance), or an applicable groundwater protection standard such as the MCL. Appendix IV background data are screened for outliers and extreme trending patterns that would lead to artificially elevated statistical limits.

Parametric tolerance limits (i.e. UTLs) were calculated using pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent on the number of background samples. The UTLs were then used as the GWPS.

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

(1) The maximum contaminant level (MCL) established under 40 CFR § 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.
    (iv) Molybdenum 0.100 mg/L.
(3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

In assessment monitoring, when the Lower Confidence Limit (LCL), or the entire interval, exceeds the GWPS as discussed in the USEPA Unified Guidance (2009), the result is recorded as an SSL. Appendix IV constituents will be updated every 2 years beginning with the most recent event (Fall 2019). The next update to GWPS will occur no earlier than the Fall of 2021. Data from upgradient wells collected between updates may still be used to support ASDs if merited.

4.3 STATISTICAL EXCEEDANCES

Analytical data from the 2020 semi-annual monitoring events in April and July were statistically analyzed in accordance with the Professional Engineer (PE)-certified Statistical Analysis Plan (October 2017) and updated in September 2019 data screening evaluation performed by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

4.3.1 Appendix III Constituents

A review of the Sanitas statistical results presented in **Appendix C**, **Statistical Analysis** identified the following Appendix III SSIs over background during the first semi-annual monitoring event:

- MW-5: pH, Boron, Chloride.
- MW-6: Chloride.
- MW-7: pH, Chloride.
- MW-8: pH, Chloride.

The following Appendix III SSIs over background were identified during the second semi-annual monitoring event:

- MW-5: pH, Chloride.
- MW-6: Chloride.
- MW-7: pH, Chloride.
- MW-8: pH, Chloride.

4.3.2 Appendix IV Constituents

Table 6, **Summary of Background Levels and Groundwater Protection Standards**, summarizes the background limit established at each monitoring well and the GWPS. A summary table of the statistical limits accompanies the prediction limits in **Appendix C**, **Statistical Analysis**. A review of the Sanitas results presented in **Appendix C** did not identify any Appendix IV SSLs during the first or second semi-annual monitoring events.

Table 7, **First Semi-Annual Monitoring Event Analytical Summary** and **Table 8, Second Semi-Annual Monitoring Event Analytical Summary**, provide a summary of all constituent concentrations for the 2020 semi-annual sampling events.

4.4 ALTERNATE SOURCE DEMONSTRATION

Section 257.95(g)(3)(ii) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4.(ii) allow the owner or operator to demonstrate that a source other than the CCR unit has caused an SSL and that the SSL was the result of an alternate source, or that the SSL resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. An ASD was prepared for lithium and submitted to ADEM in January 2019.

As discussed in the ASD report, the apparent SSL is the result of the presence of mine spoils and natural groundwater chemistry variability not accounted for by Site statistics. Analytical data from the 2020 semi-annual monitoring events in April and July were statistically analyzed in accordance with the Professional Engineer (PE)-certified Statistical Analysis Plan (October 2017) and updated in September 2019 data screening evaluation performed by Groundwater Stats Consulting. A lithium statistical limit of 0.419 mg/L was calculated using the pool of all available upgradient well data in the updated September 2019 data screening evaluation. Consequently, there are no historical exceedances of lithium associated with the CCR Landfill.

The ASD satisfies Federal rules and precludes the need to complete an ACM under § 257.96. However, ADEM has yet to approve the ASD for lithium, and consequently an ACM is required according to the State rules (ADEM Admin. Code r. 335-13-15-.06(6)(g)5.). APC amended the current Plant Gorgas ACM that was prepared under § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and AO 18-096-GW to include the CCR Landfill in February 2020.

5.0 MONITORING PROGRAM STATUS

In accordance with § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III were identified at the Plant Gorgas CCR Landfill during the first and second semi-annual sampling events conducted in 2020, but no SSLs of Appendix IV constituents were observed over the GWPS.

Following completion of statistical analysis of Appendix IV data from the first assessment event in May 2018, an SSL above the groundwater protection standard was reported for lithium in the sample from well MW-6. Following completion of statistical analysis of Appendix IV data from subsequent assessment events, no SSLs have been observed. Lithium concentrations in well MW-6 have been below the GWPS since the first assessment event in May 2018. An ASD for the SSL identified was submitted in January 2019 to ADEM as part of the 2018 Annual Groundwater Monitoring and Corrective Action Report and is pending ADEM review. The Plant Gorgas ACM prepared under § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and AO 18-096-GW was amended to include the CCR Landfill in February 2020. APC will continue semi-annual assessment monitoring at the CCR Landfill as required.

6.0 EVALUATION OF GROUNDWATER CORRECTIVE MEASURES

Site investigations and preliminary design work have continued at the Site to support remedy selection and design. As discussed in the ACM (Anchor QEA 2020), completing a final long-term corrective action plan is generally a multi-year process. Additional assessment work has been completed since June 2020, and laboratory work has been performed to support MNA and in situ geochemical manipulation as discussed in the ACM. MNA and geochemical manipulation are both geochemically based, so site-specific geochemical data and analyses can be applied to both technologies.

Laboratory analysis of groundwater and precipitates (attenuating solids) was conducted to support MNA and geochemical manipulation. The major rationale for these investigations includes the following:

- Identifying attenuating mechanisms.
- Gaining an understanding of the stability of the attenuating mechanisms.
- Identifying potential geochemical manipulation approaches for constituents of interest (COI) based on Site geochemical conditions and attenuation processes already occurring naturally

In the previous semi-annual remedy selection and design reporting period (January through June 2020), the following field and laboratory investigations were performed:

- Evaluated groundwater analytical data (primarily graphing) to look for evidence of natural attenuation occurring in space and time.
- Collected groundwater samples from background and impacted wells and performed a complete chemical analysis on the samples to enable groundwater geochemical modeling and the development of a geochemical conceptual site model (CSM).
- Performed geochemical modeling using the U.S. Geological Survey (USGS) computer program PHREEQC with the WATEQ4F thermodynamic database.
- Collected precipitate samples from the bottom of monitoring wells.
- Analyzed precipitate samples by X-ray fluorescence (XRF) and X-ray diffraction (XRD).

The following investigations were begun in the last reporting period but completed in the current reporting period:

- Scanning electron microscopy (SEM) to directly observe attenuating mineral phases.

- Selective sequential extraction (SSE) to determine association of COI with attenuating phases, determine relative strength of attenuation, and provide a sense of permanence.
- Cation exchange capacity (CEC) to assess ion exchange as an attenuation mechanism.

The work performed since the completion of the June 2020 Remedy Selection and Design Progress Report includes the following:

- Completing SEM, SSE, and CEC testing on well solids samples.
- Analyzing and synthesizing the laboratory data described above to develop a geochemical CSM and to evaluate MNA and geochemical manipulation.
- Conceptualizing other corrective action options in the context of site-specific conditions, should MNA not perform as expected.

6.1 PRELIMINARY RESULTS FROM THE GEOCHEMICAL ANALYSIS

As discussed in the Semi-Annual Remedy Selection and Design Progress Report Plant Gorgas (Anchor QEA 2020), results from existing groundwater data analysis, geochemical modeling, and well solids analyses provide evidence for attenuation mechanisms for lithium. The attenuating mechanisms identified include sorption on amorphous iron oxides (arsenic and molybdenum), precipitation of arsenate and molybdate phases (for arsenic and molybdenum, respectively), and cation exchange on clays (lithium).

Concentration versus time and concentration versus distance graphs, and laboratory analyses were integrated with geochemical modeling results to develop an initial geochemical CSM, including probable attenuating mechanisms for arsenic, lithium, and molybdenum, and the relative permanence of those mechanisms. The initial CSM for the Site is as follows:

- Multiple lines of evidence for arsenic, lithium, and molybdenum attenuation.
- Suboxic, neutral to acidic groundwater conditions.
- Redox buffered by iron oxide +/- carbonate equilibria.
- Arsenic attenuation by sorption to iron oxides, incorporation in pyrite, and possibly precipitation of barium arsenate.
- Lithium attenuation by cation exchange on clay minerals and/or incorporation in manganese oxides (e.g., lithiophorite).
- Molybdenum attenuation by adsorption to iron oxides.

As supported by SSE results and the scientific literature, incorporation of arsenic into iron minerals, arsenic into barium arsenate, and lithium into manganese oxides are relatively stable attenuation mechanisms.

Summary tables of the results are presented in **Appendix D, MNA - Geochemical Evaluation Data**.

7.0 SUMMARY AND CONCLUSIONS

Based on the results of statistical analysis presented in this report, the CCR Landfill remains in assessment monitoring.

An ASD was prepared to address the lithium GWPS exceedances at compliance well MW-6 and submitted to ADEM in January 2019. This ASD was prepared in accordance with § 257.95(g)(3)(ii) and ADEM Admin Code r. 335-13-15-.06(6)(g)4.(ii) under the direction of a licensed professional engineer with Southern Company Services. ADEM has yet to approve the ASD, so APC has amended the current Plant Gorgas ACM to include the CCR Landfill.

The certified compliance monitoring well network was sampled on a semi-annual basis and groundwater samples analyzed for all Appendix III and IV parameters. Statistical evaluations of the April and July 2020 assessment monitoring data identified no SSLs of Appendix IV constituents above the GWPS. In accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), APC will continue semi-annual assessment monitoring.

The following future actions will be taken or are recommended for the Site:

- Collect additional data to further evaluate remedies selected as feasible for the remediation of lithium as described in the ACM.
- Perform a conceptual-level feasibility study of potentially viable corrective actions:
    - Show where the viable corrective actions could be applied on Site maps and on geologic sections.
    - Compare site-specific corrective actions to the evaluation criteria in the CCR Rule, with emphasis on deficiencies that could eliminate a corrective action from further consideration.
    - Determine data gaps and develop plans to collect additional data as needed.
    - Begin the development of a detailed groundwater remedy plan.
- Submit the next Semi-Annual Remedy Selection and Design Progress Report by June 12, 2021.
- Conduct the first semi-annual assessment monitoring event in the spring of 2021 and submit the semi-annual groundwater monitoring and corrective action report summarizing the findings to ADEM by July 31, 2021.

8.0 REFERENCES

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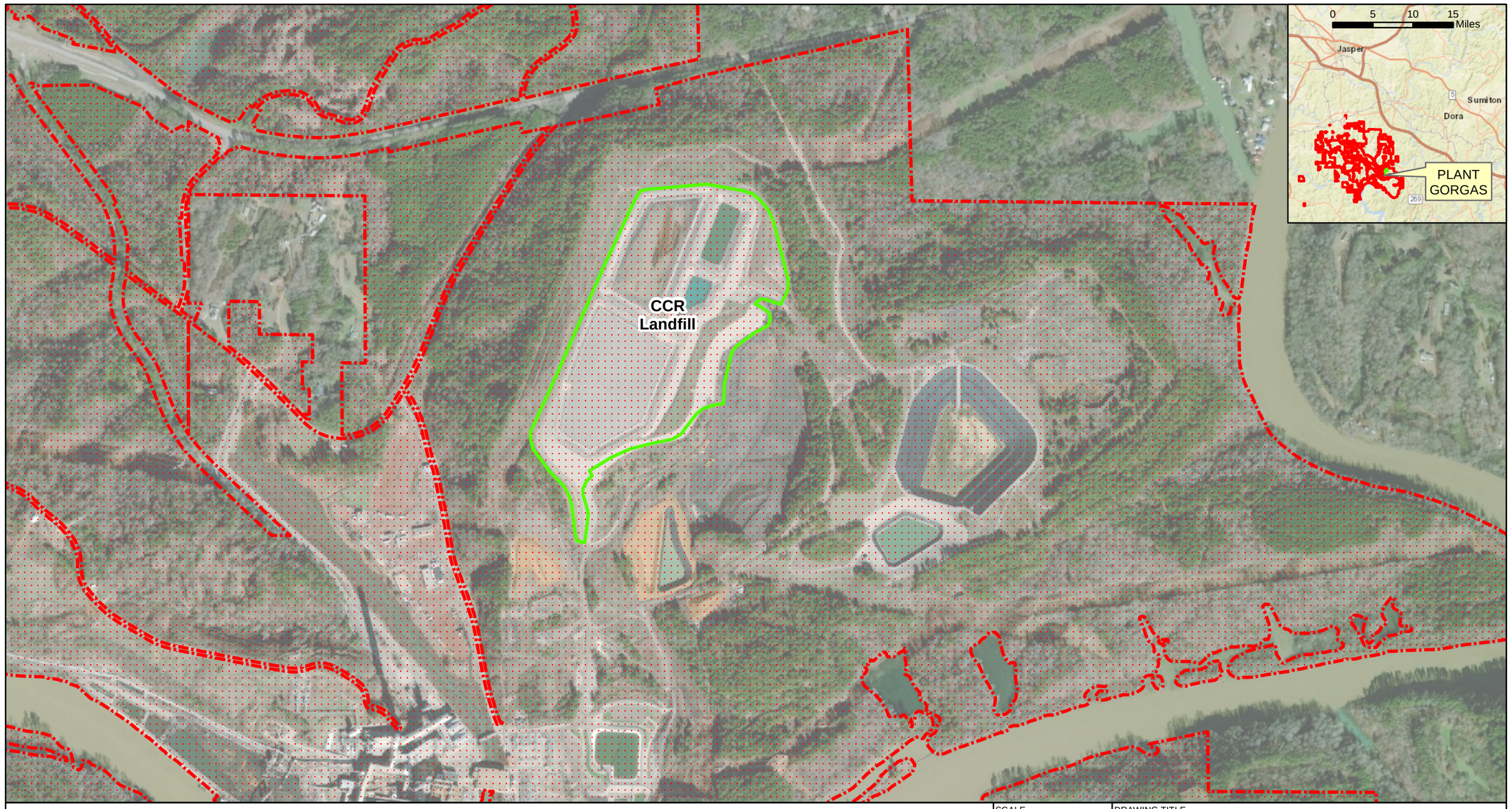
Figures



Legend

- CCR Landfill Boundary (Approximate)
- Property Boundary (Approximate)

N

0 500 1,000 2,000 3,000 Feet

SCALE	1:9000
DATE	11/9/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE

SITE LOCATION MAP
PLANT GORGAS CCR LANDFILL

FIGURE NO

FIGURE 1

Southern Company

Legend

- Property Boundary (Approximate)
- CCR Landfill Boundary (Approximate)

N

0 500 1,000 2,000 3,000 Feet

SCALE	1:9000
DATE	12/18/2019
DRAWN BY	KAR
CHECKED BY	GBD

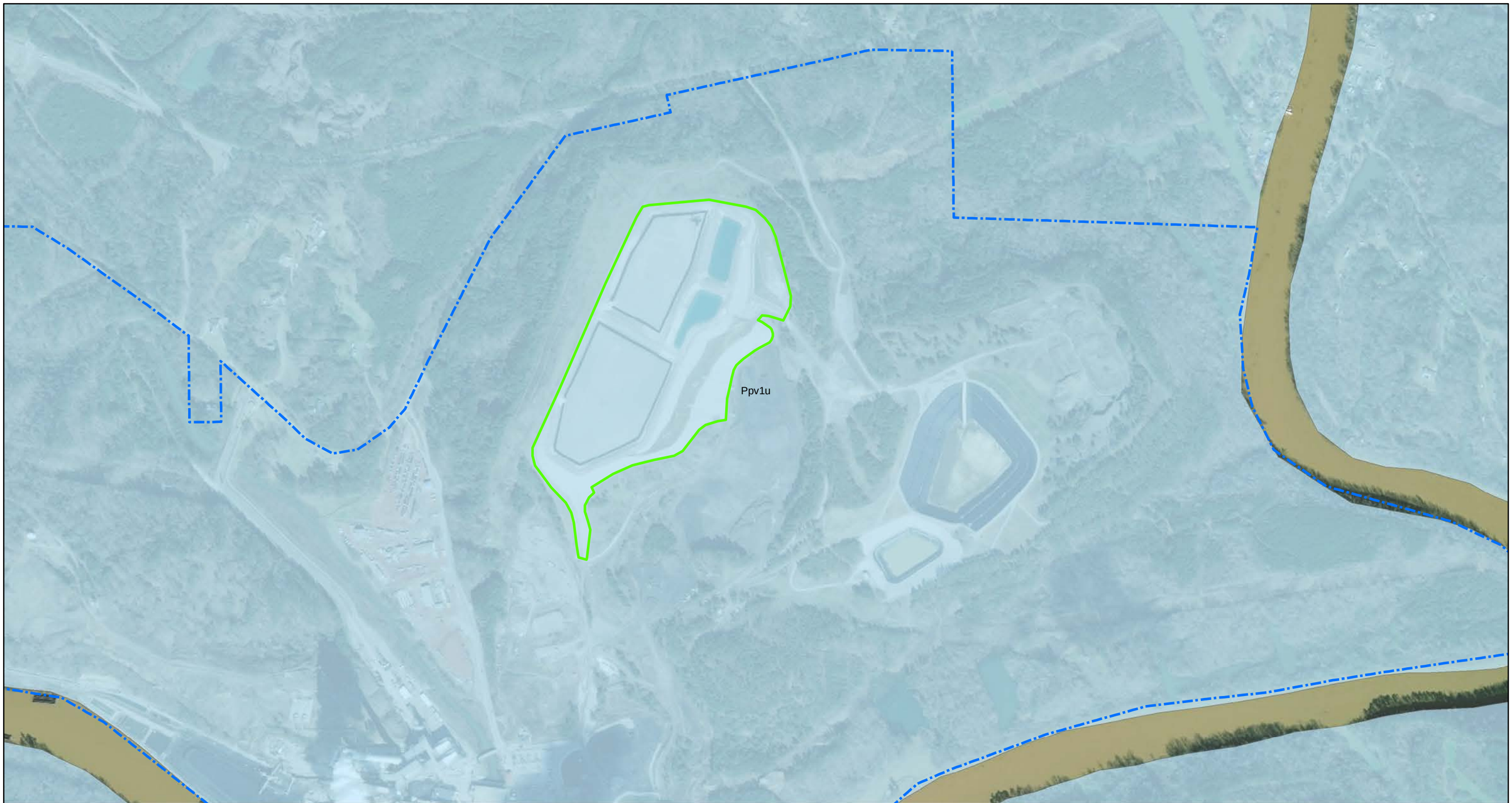
DRAWING TITLE

SITE GEOLOGIC MAP
PLANT GORGAS CCR LANDFILL

FIGURE NO

FIGURE 2

Southern Company



Legend

Property Boundary (Approximate)

CCR Landfill Boundary (Approximate)

Geologic Units

Pottsville Formation (upper part), Appalachian Plateaus (Ppv1u)

N

0 500 1,000 2,000 3,000 Feet

SCALE	1:9000
DATE	12/18/2019
DRAWN BY	KWR
CHECKED BY	GBD

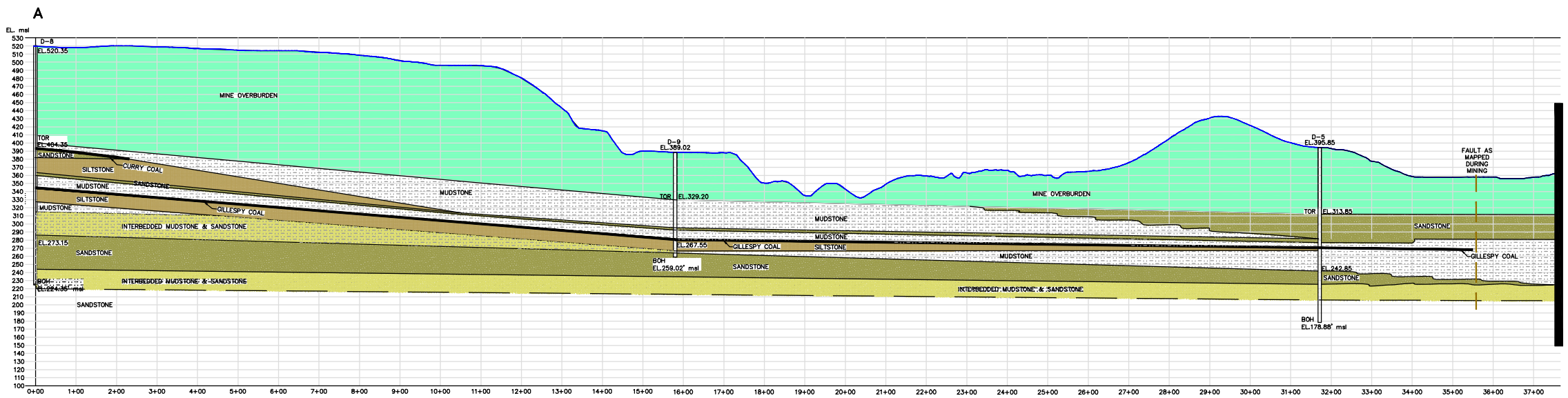
DRAWING TITLE

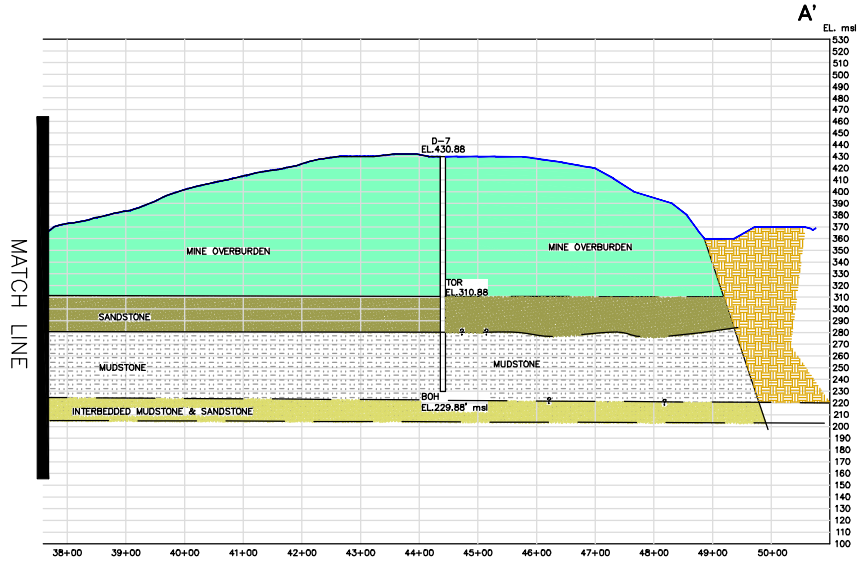
SITE GEOLOGIC MAP
PLANT GORGAS CCR LANDFILL

FIGURE NO

FIGURE 3

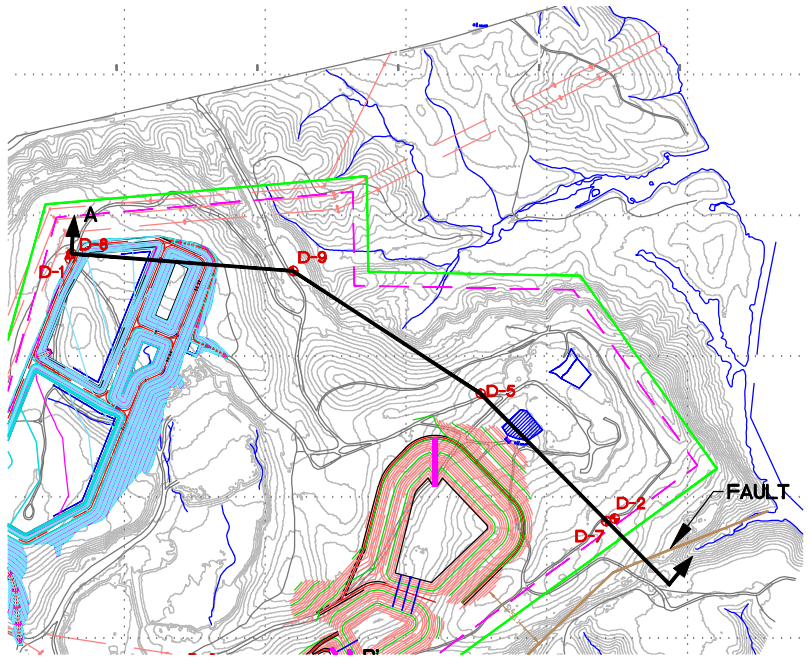
Southern Company





SECTION A–A'
SCALE: VERT: 1"= 100'
HORIZ: 1"= 200'

SECTION A–A'
SCALE: VERT: 1"= 100'
HORIZ: 1"= 200'



STATE PLAN
NAD 27
WEST ZONE

GRAPHIC SCALE
800 0 400 800 1600 3200
(IN FEET)
1 inch = 800ft.

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REVISION	DATE

REVISION	DATE

REVISION	DATE
0	07/07/2017

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Southern Company Services
Engineering and Construction Services
FOR
Alabama Power Company

PLANT GORGAS
UNIT 8, UNIT 9 AND UNIT 10
CCB STORAGE FACILITY
GEOLOGIC CROSS SECTION A–A'

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	DISC MGR

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	DISC MGR

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	DISC MGR
GBD	GBD	SCB	XXX	XXX	XXX	XXX

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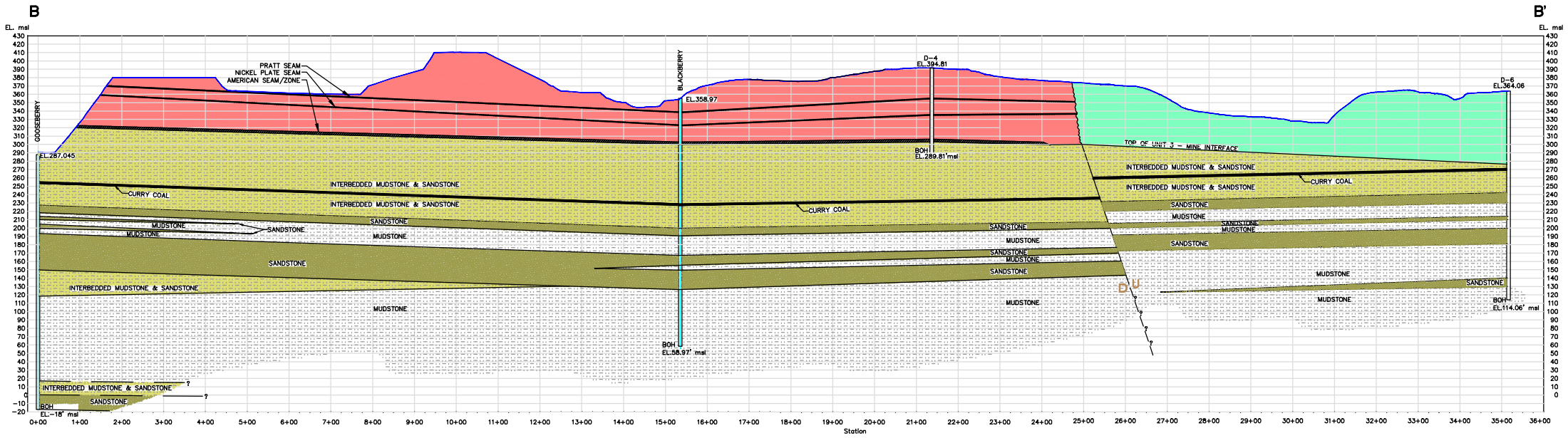
ANSI C: 22x17 Acad2013



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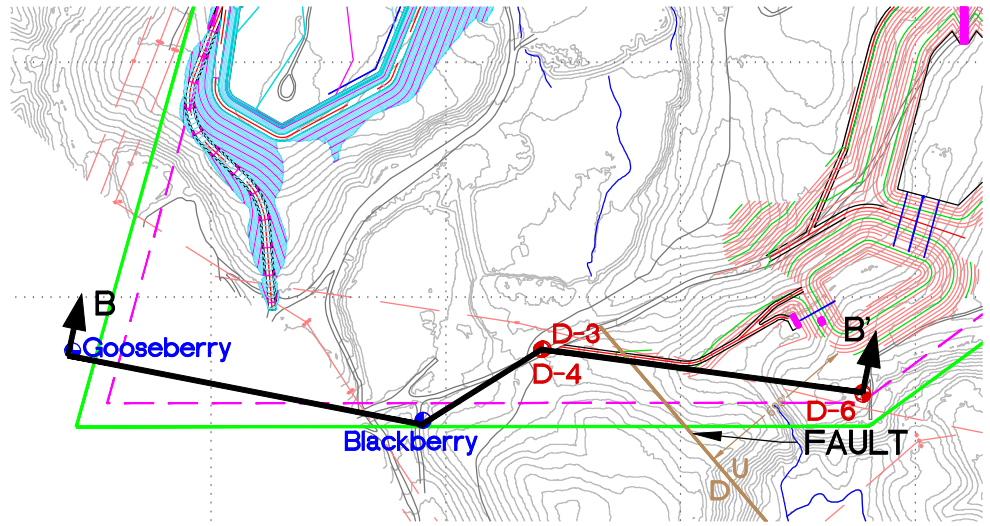

STATE PLAN
NAD 27
WEST ZONE

GRAPHIC SCALE
500 0 250 500 1000 2000
(IN FEET)
1 inch = 500ft.

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0	07/07/2017

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FOR
Alabama Power Company

PLANT GORGAS
UNIT 8, UNIT 9 AND UNIT 10
CCB STORAGE FACILITY
GEOLOGIC CROSS SECTION B–B'

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	DISC MGR

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	DISC MGR

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	DISC MGR
GBD	GBD	SCB	XXX	XXX	XXX	XXX

SCALE	DRAWING NUMBER	SHEET	CONT'D	REV
AS SHOWN	**FIGURE 4B**	1	FINAL	0

ANSI C: 22x17 Acad2013

Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Gorgas CCR Landfill Boundary (Approximate)

N

0 500 1,000 2,000 Feet

SCALE	1:6000
DATE	6/23/2020
DRAWN BY	KWR
CHECKED BY	GBD

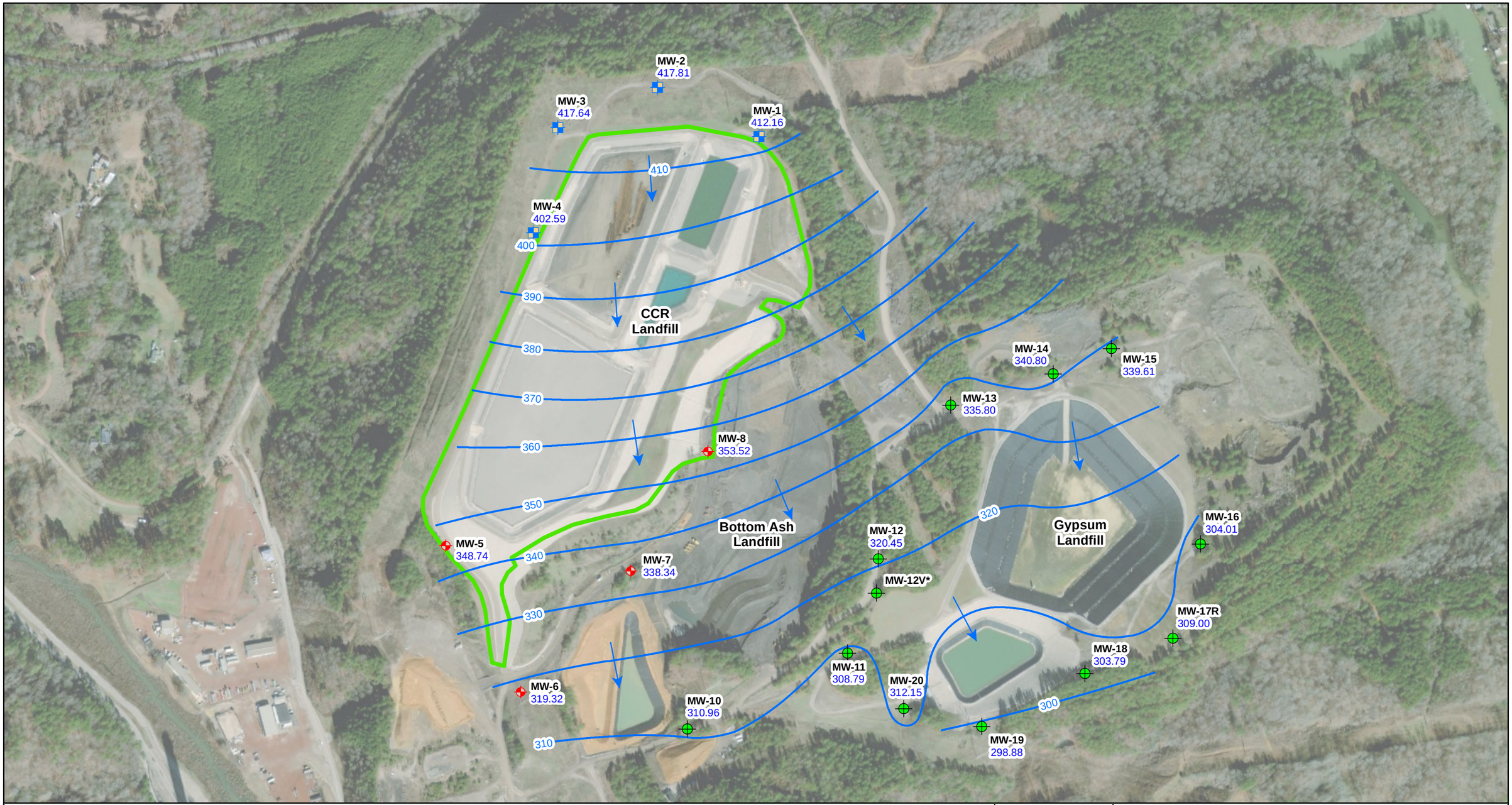
DRAWING TITLE

MONITORING WELL LOCATION MAP
PLANT GORGAS CCR LANDFILL

FIGURE NO

FIGURE 5

Southern Company



Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Monitoring Well
- **MW-1** 412.16 — Well ID, Groundwater Elevation
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- CCR Landfill Boundary (Approximate)

N

0 500 1,000 2,000 Feet

NOTES: 1. NAVD88 indicates North American Vertical Datum of 1988.
2. *MW-12V was screened at a different depth and was not factored into potentiometric contours.

SCALE	1:6000
DATE	7/2/2020
DRAWN BY	KAR
CHECKED BY	GBD

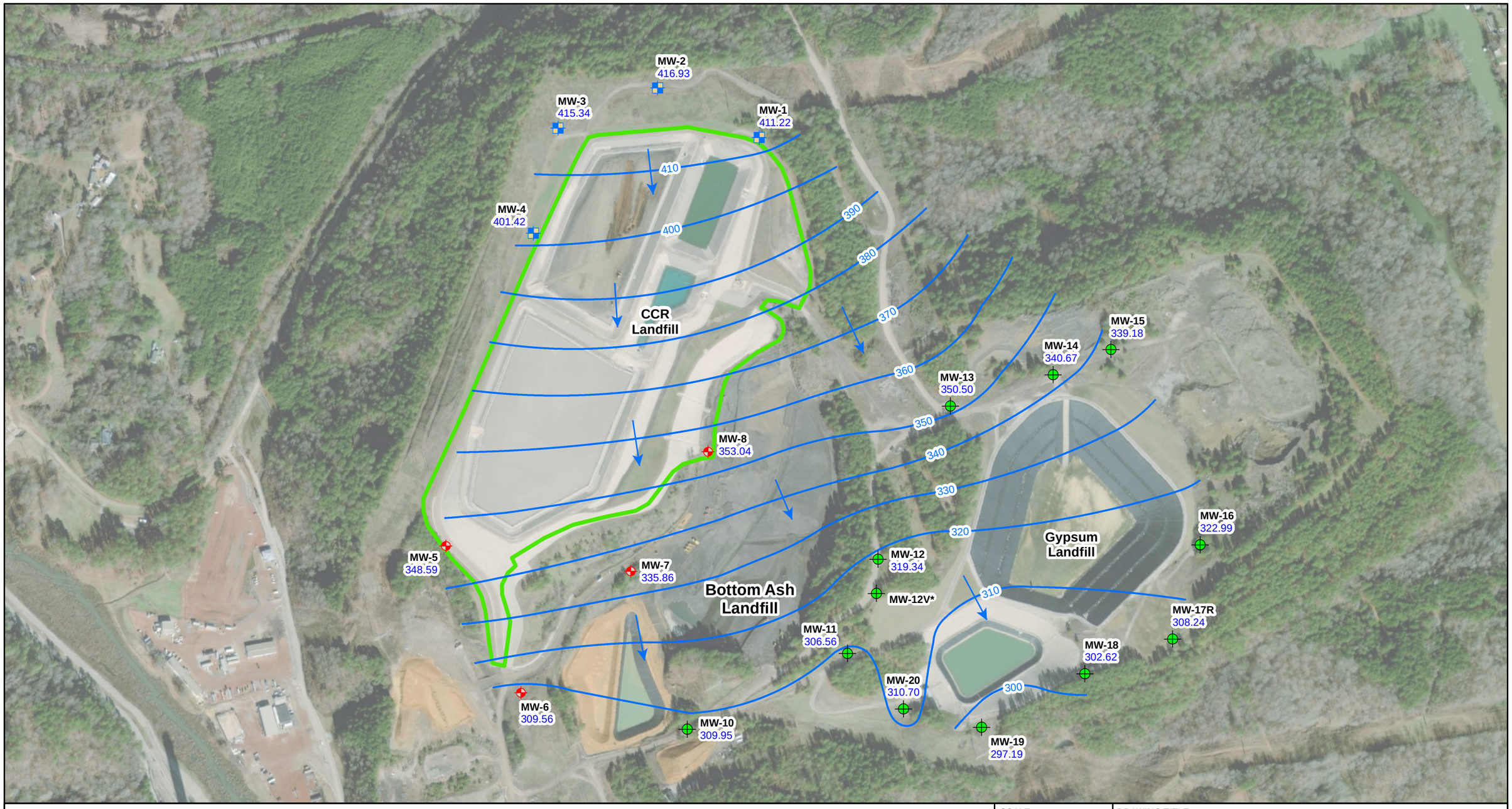
DRAWING TITLE

POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 6, 2020
PLANT GORGAS CCR LANDFILL

FIGURE NO

FIGURE 6

Southern Company



Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Monitoring Well
- **MW-1** Well ID
  411.22 Groundwater Elevation
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- CCR Landfill Boundary (Approximate)

N

0 500 1,000 2,000 Feet

NOTES:
1. NAVD88 indicates North American Vertical Datum of 1988.
2. MW-10, screened across American Coal Seam, was factored into contouring.
3. *MW-12V and MW-17R are screened entirely in rock and were not factored into contouring.

SCALE	1:6000
DATE	11/9/2020
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE

POTENTIOMETRIC SURFACE CONTOUR MAP JULY 13, 2020 PLANT GORGAS CCR LANDFILL

FIGURE NO

FIGURE 7

Southern Company

Tables

Table 1.
Groundwater Monitoring Well Network Details

Well Name	Purpose	Northing [1]	Easting [1]	Ground Elevation [2]	Top of Casing Elevation [2]	Well Depth (ft.) Below Top of Casing	Top of Screen Elevation [2]	Bottom of Screen Elevation [2]	Screen Length (ft.)
MW-1	Upgradient	1330794.064	594082.361	499.19	502.25	107.56	405.09	395.09	10
MW-2	Upgradient	1331053.309	593548.802	498.54	502.12	94.58	417.94	407.94	10
MW-3	Upgradient	1330842.402	593025.397	522.23	525.9	119.07	417.23	407.23	10
MW-4	Upgradient	1330289.727	592896.414	516.67	518.63	128.66	400.37	390.37	10
MW-5	Downgradient	1328645.982	592436.538	471.55	474.55	137	351.95	341.95	10
MW-6	Downgradient	1327877.972	592829.837	409.99	412.99	129	294.39	284.39	10
MW-7	Downgradient	1328515.235	593408.341	391.59	394.59	74	330.99	320.99	10
MW-8	Downgradient	1329140.729	593813.964	413.15	416.1	72.25	354.25	344.25	10

1. Northing and easting are in feet relative to the State Plane Alabama West North America Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Top of screen and bottom of screen depths are calculated relative Top of Casing elevation and less the well sump length of 0.4’.

Table 2.
Monitoring Parameters and Reporting Limits

Appendix III Parameters		
Parameter	**Analytical Method**	**Reporting Limit (mg/L) [1]**
Boron	EPA 200.7/200.8	0.05
Calcium	EPA 200.7/200.8	0.25
Chloride	EPA 300.0	2
Fluoride	EPA 300.0	0.1
pH	None	None
Sulfate	EPA 300.0	5
Total Dissolved Solids (TDS)	SM 2540C	5
Appendix IV Parameters		
Parameter	**Analytical Method**	**Reporting Limit (mg/L)**
Antimony	EPA 200.7/200.8	0.0025
Arsenic	EPA 200.7/200.8	0.00125
Barium	EPA 200.7/200.8	0.0025
Beryllium	EPA 200.7/200.8	0.0025
Cadmium	EPA 200.7/200.8	0.0025
Chromium	EPA 200.7/200.8	0.0025
Cobalt	EPA 200.7/200.8	0.0025
Fluoride	EPA 300.0	0.1
Lead	EPA 200.7/200.8	0.00125
Lithium	EPA 200.7/200.8	0.0025
Mercury	EPA 7470A	0.0002
Molybdenum	EPA 200.7/200.8	0.015
Selenium	EPA 200.7/200.8	0.00125
Thallium	EPA 200.7/200.8	0.0005
Radium 226 & 228 combined [2]	EPA 9315/9320	1 pCi/L

Notes:

1. mg/L - Milligrams per liter

2. Combined Radium 226 + 228 reported in pCi/L - Picocuries per liter

Table 3.
Groundwater Elevation Summary

Well Name	Top of Casing Elevation	Groundwater Elevation (ft. AMSL)												
		4/25/2016	6/20/2016	8/8/2016	10/3/2016	11/21/2016	1/17/2017	3/20/2017	4/10/2017	5/30/2017	8/23/20107	10/12/2017	10/13/2017	10/14/2017	10/15/2017
MW-1	502.25	411.22	410.70	410.49	410.31	410.10	410.07	410.67	410.89	410.80	411.06	410.70	410.72	410.68	410.73
MW-2	502.12	417.36	416.76	416.60	416.21	415.98	416.62	417.24	417.66	416.94	417.02	416.50	416.54	416.49	416.53
MW-3	525.9	416.41	415.45	415.00	414.82	414.43	415.27	416.07	418.23	415.53	415.73	415.10	415.14	415.15	415.17
MW-4	518.63	402.31	401.79	400.61	400.09	399.53	400.51	402.02	402.50	401.68	401.77	400.79	400.76	400.67	400.67
MW-5	474.55	348.47	348.37	348.43	348.39	348.38	348.34	348.4	348.53	348.42	348.42	348.38	348.4	348.36	348.37
MW-6	412.99	312.84	308.08	305.87	304.61	304.24	304.6	306.45	307.79	306.65	310.02	306.04	306.03	305.99	305.98
MW-7	394.59	336.39	334.07	333.91	333.86	333.71	333.81	334.1	336.18	334.24	335.75	334.36	334.53	334.45	334.45
MW-8	416.10	351.49	351.75	351.95	352.15	352.16	353.56	352.92	353.12	353.12	353.29	353.39	353.32	353.31	353.4

Notes:
1. ft. AMSL - feet above mean sea level
2. -- Not Measured

Table 3.
Groundwater Elevation Summary

Well Name	Top of Casing Elevation	Groundwater Elevation (ft. AMSL)												
		10/16/2017	10/17/2017	11/15/2017	2/12/2018	4/9/2018	5/21/2018	10/29/2018	11/19/2018	3/13/2019	5/13/2019	10/7/2019	4/6/2020	7/13/2020
MW-1	502.25	410.68	410.65	410.66	410.89	411.35	411.47	410.62	410.80	412.11	411.77	410.79	412.16	411.22
MW-2	502.12	416.50	416.51	416.74	419.29	417.32	417.33	416.30	417.67	417.70	417.64	416.63	417.81	416.93
MW-3	525.9	415.13	415.12	415.41	418.49	416.25	416.28	414.85	416.31	418.31	416.40	415.17	417.64	415.34
MW-4	518.63	400.59	400.62	400.60	402.67	402.22	402.24	400.18	402.08	402.68	402.43	400.33	402.59	401.42
MW-5	474.55	348.34	348.37	348.43	348.61	348.5	348.49	348.42	348.55	348.74	348.66	348.46	348.74	348.59
MW-6	412.99	305.95	305.91	305.75	306.47	311.9	314.14	304.84	306.89	323.91	316.49	304.21	319.32	309.56
MW-7	394.59	334.42	334.41	334.14	336.82	335.68	336.6	334.01	337.61	339.54	338.44	334.13	338.34	335.86
MW-8	416.10	353.34	353.31	353.3	353.44	353.5	353.55	353.08	353.37	353.47	353.32	352.22	353.52	353.04

Notes:
1. ft. AMSL - feet above mean sea level
2. -- Not Measured

Table 4.
Horizontal Groundwater Flow Velocity Calculations

1st Semi-Annual Monitoring Event								
Source	**MW-2**	**MW-20**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity (ft/d)**	**Calculated Groundwater Flow Velocity (ft/yr)**
	h_1 (ft)	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**		
4/6/2020	417.81	312.15	3507.0	0.030	8.01	0.15	1.61	587.23

Source	**MW-3**	**MW-6**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity (ft/d)**	**Calculated Groundwater Flow Velocity (ft/yr)**
	h_1 (ft)	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**		
4/6/2020	417.64	319.32	2970.0	0.033	8.01	0.15	1.77	645.24

Source	**MW-14**	**MW-19**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity (ft/d)**	**Calculated Groundwater Flow Velocity (ft/yr)**
	h_1 (ft)	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**		
4/6/2020	340.80	298.88	1890.0	0.022	8.01	0.15	1.18	432.31

Notes:
ft=feet
ft/d = feet/day
ft/ft = feet per foot
ft/yr = feet per year

Table 4.
Horizontal Groundwater Flow Velocity Calculations

2nd Semi-Annual Monitoring Event								
Source	**MW-2**	**MW-20**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity (ft/d)**	**Calculated Groundwater Flow Velocity (ft/yr)**
	h_1 (ft)	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**		
7/13/2020	416.93	310.70	3507.0	0.030	8.01	0.15	1.62	590.40

Source	**MW-3**	**MW-6**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity (ft/d)**	**Calculated Groundwater Flow Velocity (ft/yr)**
	h_1 (ft)	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**		
7/13/2020	415.34	309.56	2970.0	0.036	8.01	0.15	1.90	694.19

Source	**MW-14**	**MW-19**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity (ft/d)**	**Calculated Groundwater Flow Velocity (ft/yr)**
	h_1 (ft)	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**		
7/13/2020	340.67	297.19	1890.0	0.023	8.01	0.15	1.23	448.40

Notes:
ft=feet
ft/d = feet/day
ft/ft = feet per foot
ft/yr = feet per year

Table 5.
Relative Percent Difference Calculations

2020 1st Semi-Annual Monitoring Event				
Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		MW-6	**MW-6 Dup**	
Arsenic	mg/L	0.00232	0.00235	1.3
Barium	mg/L	0.0128	0.0129	0.8
Beryllium	mg/L	0.000788	0.000732	7.4
Boron	mg/L	0.0499	0.0479	4.1
Cadmium	mg/L	0.00204	0.00193	5.5
Calcium	mg/L	242	241	0.4
Chloride	mg/L	4.63	4.55	1.7
Cobalt	mg/L	0.479	0.496	3.5
Lithium	mg/L	0.0489	0.0488	0.2
Sulfate	mg/L	1900	1780	6.5
Total Dissolved Solids	mg/L	2940	2870	2.4

Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		MW-16	**MW-16 Dup**	
Arsenic	mg/L	0.00333	0.00313	6.2
Barium	mg/L	0.0131	0.0131	0.0
Boron	mg/L	0.0507	0.0483	4.8
Calcium	mg/L	302	297	1.7
Chloride	mg/L	3.26	3.26	0.0
Cobalt	mg/L	0.00859	0.00863	0.5
Lithium	mg/L	0.019	0.019	0.0
Sulfate	mg/L	1270	1270	0.0
Total Dissolved Solids	mg/L	2360	2380	0.8

Table 5.
Relative Percent Difference Calculations

2020 2nd Semi-Annual Monitoring Event				
Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		MW-1	**MW-1 DUP**	
Calcium	mg/L	147	150	2.0
Chloride	mg/L	2.1	2.14	1.9
Sulfate	mg/L	1450	1330	8.6
TDS	mg/L	2240	2260	0.9
Barium	mg/L	0.0101	0.00973	3.7
Cadmium	mg/L	0.00194	0.00205	5.5
Cobalt	mg/L	0.0532	0.0534	0.4
Lithium	mg/L	0.028	0.0273	2.5

Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		MW-14	**MW-14 Dup**	
Calcium	mg/L	332	333	0.3
Chloride	mg/L	1.73	1.72	0.6
Fluoride	mg/L	0.227	0.221	2.7
Sulfate	mg/L	1840	1910	3.7
TDS	mg/L	3160	3170	0.3
Barium	mg/L	0.0127	0.0125	1.6
Cobalt	mg/L	0.00839	0.00836	0.4
Lithium	mg/L	0.0384	0.0386	0.5

Table 6.
Summary of Background Levels and Groundwater Protection Standards

Analyte	Units	Background	GWPS
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.01527	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00598	0.005
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	1.07	1.07
Combined Radium-226/228	pCi/L	1.098	5
Fluoride	mg/L	0.5302	4
Lead	mg/L	0.00692	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.0158	0.05
Thallium	mg/L	0.001	0.002

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and ADEM Rule 335-13-15-.06(h).

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
MW-1	**4/6/2020**	0.45	92.72	20.52	2297	1.92
MW-2	**4/6/2020**	0.58	50.20	19.41	1633.26	3.69
MW-3	**4/6/2020**	4.89	90.59	23.28	2462.99	7.59
MW-4	**4/6/2020**	2.71	83.67	20.60	2789.74	4.65
MW-5	**4/7/2020**	0.92	-19.93	20.76	3169.22	4.98
MW-6	**4/8/2020**	0.14	216.87	20.57	2888.93	5.39
MW-7	**4/8/2020**	0.27	3.75	19.67	2577.46	1.07
MW-8	**4/8/2020**	0.57	0.91	21.05	2707.34	2.72

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
MW-1	**4/6/2020**	Non-Detect	149	2.01	0.101	5.21	1530	2240
MW-2	**4/6/2020**	Non-Detect	152	2.43	0.207	6.21	786	1440
MW-3	**4/6/2020**	Non-Detect	177	1.72	0.314	5.91	1670	2630
MW-4	**4/6/2020**	0.0428(J)	222	1.5	0.368	6.35	1810	2820
MW-5	**4/7/2020**	0.0399(J)	432	4.83	0.225	6.43	2050	3270
MW-6	**4/8/2020**	0.0499(J)	242	4.63	Non-Detect	4.98	1900	2940
MW-7	**4/8/2020**	0.077(J)	280	10.6	0.153	6.64	1270	2230
MW-8	**4/8/2020**	0.0683(J)	281	24.9	0.192	6.7	1380	2450

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
MW-1	**4/6/2020**	Non-Detect	Non-Detect	0.00971(J)	Non-Detect	0.00184	Non-Detect	0.0417
MW-2	**4/6/2020**	Non-Detect	Non-Detect	0.0125	Non-Detect	Non-Detect	Non-Detect	0.0116
MW-3	**4/6/2020**	Non-Detect	Non-Detect	0.00931(J)	Non-Detect	0.000645(J)	Non-Detect	Non-Detect
MW-4	**4/6/2020**	Non-Detect	Non-Detect	0.0115	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	**4/7/2020**	Non-Detect	0.00163(J)	0.0137	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	**4/8/2020**	Non-Detect	0.00232(J)	0.0128	0.000788(J)	0.00204	Non-Detect	0.479
MW-7	**4/8/2020**	Non-Detect	0.00136(J)	0.0127	Non-Detect	Non-Detect	Non-Detect	0.00394(J)
MW-8	**4/8/2020**	Non-Detect	0.00102(J)	0.0137	Non-Detect	Non-Detect	Non-Detect	0.00762

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
MW-1	**4/6/2020**	0.309(U)	0.101	Non-Detect	0.0278	Non-Detect	Non-Detect	0.00275(J)	Non-Detect
MW-2	**4/6/2020**	0.212(U)	0.207	Non-Detect	0.0496	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	**4/6/2020**	0.569(U)	0.314	Non-Detect	0.0689	Non-Detect	Non-Detect	0.01	Non-Detect
MW-4	**4/6/2020**	0.459(U)	0.368	Non-Detect	0.0519	Non-Detect	Non-Detect	0.00284(J)	Non-Detect
MW-5	**4/7/2020**	0.48(U)	0.225	Non-Detect	0.133	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	**4/8/2020**	0.179(U)	Non-Detect	Non-Detect	0.0489	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	**4/8/2020**	0.237(U)	0.153	Non-Detect	0.117	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	**4/8/2020**	1.38(U)	0.192	Non-Detect	0.149	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
MW-1	**7/13/2020**	0.49	256.14	20.44	2163.1	2.37
MW-2	**7/13/2020**	0.27	73.31	20.28	1601.39	3.33
MW-3	**7/13/2020**	1.36	195.13	25.3	2834.89	9.7
MW-4	**7/14/2020**	2.51	104.87	21.05	2212.35	2.25
MW-5	**7/14/2020**	0.7	-17.01	22.89	2682.21	2.88
MW-6	**7/14/2020**	0.24	12.45	21.43	2191.41	4.1
MW-7	**7/14/2020**	0.26	10.54	20.26	1763.26	2.26
MW-8	**7/15/2020**	1.06	-18.8	22.81	2259.4	9.42

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
MW-1	**7/13/2020**	Non-Detect	147	2.1	0.0678(J)	5.14	1450	2240
MW-2	**7/13/2020**	Non-Detect	163	4.05	0.132	5.84	843	1540
MW-3	**7/13/2020**	0.0366(J)	264	1.34	0.13	5.16	2130	3650
MW-4	**7/14/2020**	0.0441(J)	259	1.61	0.33	6.2	1970	3310
MW-5	**7/14/2020**	0.033(J)	395	6.84	0.263	6.48	2080	3710
MW-6	**7/14/2020**	0.0838(J)	406	3.25	0.115	6.12	1970	3270
MW-7	**7/14/2020**	0.0865(J)	261	9.68	0.193	6.52	1330	2210
MW-8	**7/15/2020**	0.0723(J)	280	23.8	0.196	6.71	1410	2460

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
MW-1	**7/13/2020**	Non-Detect	Non-Detect	0.0101	Non-Detect	0.00194	Non-Detect	0.0532
MW-2	**7/13/2020**	Non-Detect	Non-Detect	0.0145	Non-Detect	Non-Detect	Non-Detect	0.0405
MW-3	**7/13/2020**	Non-Detect	0.00316(J)	0.0142	0.0021(J)	0.00885	Non-Detect	0.47
MW-4	**7/14/2020**	Non-Detect	Non-Detect	0.0122	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	**7/14/2020**	Non-Detect	Non-Detect	0.0124	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	**7/14/2020**	Non-Detect	0.0048(J)	0.0154	Non-Detect	Non-Detect	Non-Detect	0.0916
MW-7	**7/14/2020**	Non-Detect	0.00147(J)	0.0148	Non-Detect	Non-Detect	Non-Detect	0.00653
MW-8	**7/15/2020**	Non-Detect	0.00212(J)	0.0143	Non-Detect	Non-Detect	Non-Detect	0.00821

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
MW-1	**7/13/2020**	0.219(U)	0.0678(J)	Non-Detect	0.028	Non-Detect	Non-Detect	0.00245(J)	Non-Detect
MW-2	**7/13/2020**	0.0814(U)	0.132	Non-Detect	0.0615	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	**7/13/2020**	0.53	0.13	Non-Detect	0.256	Non-Detect	Non-Detect	0.0134	Non-Detect
MW-4	**7/14/2020**	0.169(U)	0.33	Non-Detect	0.0543	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	**7/14/2020**	0.521	0.263	Non-Detect	0.11	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	**7/14/2020**	0.578	0.115	Non-Detect	0.223	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	**7/14/2020**	0.434	0.193	Non-Detect	0.103	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	**7/15/2020**	0.398(U)	0.196	Non-Detect	0.152	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),
data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Appendix A

Appendix A
Abbreviations

Abbreviations:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. N/A indicates the constituent was not analyzed during the sampling event.
4. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.
5. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Annual sampling for Appendix IV constituents only was completed following initiation of assessment monitoring. Appendix III constituents were not required during this monitoring event.

Analytical Data Summary
Plant Gorgas CCR Landfill
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-1	4/26/2016	0.0231(J)	147	1.94	0.146(J)	5.2	1490	2080	Non-Detect	Non-Detect	0.00941(J)	Non-Detect	0.00196	Non-Detect	0.0343	0.622	0.146(J)	Non-Detect	0.0264(J)	Non-Detect	Non-Detect	0.00261(J)	Non-Detect
MW-1	6/20/2016	0.0227(J)	152	2.09	0.148(J)	5.18	1420	2060	Non-Detect	Non-Detect	0.00951(J)	Non-Detect	0.0021	Non-Detect	0.0413	0.159(U)	0.148(J)	Non-Detect	0.0246(J)	Non-Detect	Non-Detect	0.00242(J)	Non-Detect
MW-1	8/8/2016	0.0278(J)	150	2.18	0.137(J)	5.12	1460	2070	Non-Detect	Non-Detect	0.00991(J)	Non-Detect	0.00206	Non-Detect	0.0513	0.511(U)	0.137(J)	Non-Detect	0.0229(J)	Non-Detect	Non-Detect	0.00253(J)	Non-Detect
MW-1	8/24/2016	0.0247(J)	142	2.22	0.133(J)	n/a	1450	2040	Non-Detect	Non-Detect	0.00949(J)	Non-Detect	0.00182	Non-Detect	0.0471	0.566(U)	0.133(J)	Non-Detect	0.0236(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	10/3/2016	0.0307(J)	139	2.34	0.103(J)	5.21	1460	2110	Non-Detect	Non-Detect	0.0105	Non-Detect	0.00188	Non-Detect	0.0525	0.537(U)	0.103(J)	Non-Detect	0.0229(J)	Non-Detect	Non-Detect	0.00211(J)	Non-Detect
MW-1	10/26/2016	0.0241(J)	133	2.34	0.05(J)	5.2	1330	2000	Non-Detect	Non-Detect	0.00931(J)	Non-Detect	0.00175	Non-Detect	0.0527	0.636	0.05(J)	Non-Detect	0.0227(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	11/21/2016	0.0202(J)	144	2.5	0.047(J)	5.19	1420	2070	Non-Detect	Non-Detect	0.00879(J)	Non-Detect	0.00197	Non-Detect	0.0569	0.807	0.047(J)	Non-Detect	0.0236(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	1/17/2017	0.0201(J)	131	2.68	0.09(J)	5.17	1350	1930	Non-Detect	Non-Detect	0.00929(J)	Non-Detect	0.002	Non-Detect	0.0768	0.308(U)	0.09(J)	Non-Detect	0.0228(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	3/22/2017	0.0224(J)	141	3.7	0.12	5.2	1500	2060	Non-Detect	Non-Detect	0.00938(J)	Non-Detect	0.0019	Non-Detect	0.0535	0.344(U)	0.12	Non-Detect	0.0238(J)	Non-Detect	Non-Detect	0.0022(J)	Non-Detect
MW-1	4/18/2017	Non-Detect	149	2.4	0.12	5.2	1300	2140	Non-Detect	Non-Detect	0.00964(J)	Non-Detect	0.00159	Non-Detect	0.0442	0.934	0.12	Non-Detect	0.0242(J)	Non-Detect	Non-Detect	0.0027(J)	Non-Detect
MW-1	5/30/2017	Non-Detect	140	2.6	0.13	5.14	1400	2240	Non-Detect	Non-Detect	0.00982(J)	Non-Detect	0.00214	Non-Detect	0.0465	0.149(U)	0.13	Non-Detect	0.0229(J)	Non-Detect	Non-Detect	0.00316(J)	Non-Detect
MW-1	8/23/2017	0.0253(J)	152	2.7	0.16	5.12	1500	2160	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.16	n/a	n/a	n/a	n/a	n/a	n/a
MW-1	2/13/2018	n/a	n/a	n/a	0.14	5.18	n/a	n/a	Non-Detect	Non-Detect	0.00937(J)	Non-Detect	0.0018	Non-Detect	0.062	0.774	0.14	Non-Detect	0.0233(J)	Non-Detect	Non-Detect	0.00211(J)	Non-Detect
MW-1	5/22/2018	0.0224(J)	166	2.3	0.16	5.2	2100	2380	Non-Detect	Non-Detect	0.0102	Non-Detect	0.00201	Non-Detect	0.0443	-0.091(U)	0.16	Non-Detect	0.0263(J)	Non-Detect	Non-Detect	0.00372(J)	Non-Detect
MW-1	6/12/2018	0.0214(J)	203	2.3	0.16	5.15	1500	2400	Non-Detect	Non-Detect	0.0104	Non-Detect	0.00217	Non-Detect	0.0512	1.18	0.16	Non-Detect	0.0251(J)	Non-Detect	Non-Detect	0.00409(J)	Non-Detect
MW-1	10/17/2018	0.0216(J)	171	1.7(J)	0.18	5.12	1400	2220	Non-Detect	Non-Detect	0.00952(J)	Non-Detect	0.00228	Non-Detect	0.0751	0.553(U)	0.18	Non-Detect	0.025(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	11/19/2018	0.0237(J)	154	1.7(J)	0.15	5.09	1300	2360	Non-Detect	Non-Detect	0.00915(J)	Non-Detect	0.00156	Non-Detect	0.0825	0.862	0.15	Non-Detect	0.0241	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	4/10/2019	Non-Detect	270	2.35	0.105	5.11	1760	2600	0.00114(J)	Non-Detect	0.0102	Non-Detect	0.00219	Non-Detect	0.0453	n/a	0.105	Non-Detect	0.0294	Non-Detect	Non-Detect	0.00467(J)	Non-Detect
MW-1	5/14/2019	Non-Detect	167	2.28	0.119	5.19	1560	2340	0.00137(J)	Non-Detect	0.00913(J)	Non-Detect	0.00238	Non-Detect	0.0485	0.509	0.119	Non-Detect	0.026(J)	Non-Detect	Non-Detect	0.00316(J)	Non-Detect
MW-1	10/8/2019	Non-Detect	157	2.31	0.0924(J)	5.12	1540	2330	Non-Detect	Non-Detect	0.0109	Non-Detect	0.00218	Non-Detect	0.0778	1.47	0.0924(J)	Non-Detect	0.0268	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	10/16/2019	0.0385(J)	157	2.42	0.0756(J)	5.16	1680	3650	Non-Detect	Non-Detect	0.0106	Non-Detect	0.00225	Non-Detect	0.08	0.204(U)	0.0756(J)	Non-Detect	0.0263	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-1	4/6/2020	Non-Detect	149	2.01	0.101	5.21	1530	2240	Non-Detect	Non-Detect	0.00971(J)	Non-Detect	0.00184	Non-Detect	0.0417	0.309(U)	0.101	Non-Detect	0.0278	Non-Detect	Non-Detect	0.00275(J)	Non-Detect
MW-1	7/13/2020	Non-Detect	147	2.1	0.0678(J)	5.14	1450	2240	Non-Detect	Non-Detect	0.0101	Non-Detect	0.00194	Non-Detect	0.0532	0.219(U)	0.0678(J)	Non-Detect	0.028	Non-Detect	Non-Detect	0.00245(J)	Non-Detect

Analytical Data Summary
Plant Gorgas CCR Landfill
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-2	4/25/2016	0.0241(J)	123	1.9	0.149(J)	5.94	745	1260	Non-Detect	Non-Detect	0.0134	Non-Detect	Non-Detect	Non-Detect	0.0487	n/a	0.149(J)	Non-Detect	0.0353(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	6/20/2016	0.0284(J)	168	3.43	0.148(J)	5.96	964	1620	Non-Detect	Non-Detect	0.0165	Non-Detect	Non-Detect	Non-Detect	0.0767	-0.0718(U)	0.148(J)	Non-Detect	0.0583	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	8/8/2016	0.034(J)	180	3.31	0.134(J)	5.88	1100	1740	Non-Detect	Non-Detect	0.0162	Non-Detect	Non-Detect	Non-Detect	0.103	0.231(U)	0.134(J)	Non-Detect	0.0627	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	8/24/2016	0.0316(J)	180	3.23	0.129(J)	n/a	1130	1720	Non-Detect	Non-Detect	0.0139	Non-Detect	Non-Detect	Non-Detect	0.093	0.65	0.129(J)	Non-Detect	0.0651	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	10/3/2016	0.0367(J)	184	3.21	0.086(J)	5.91	1140	1800	Non-Detect	Non-Detect	0.0164	Non-Detect	Non-Detect	Non-Detect	0.0964	0.845	0.086(J)	Non-Detect	0.0622	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	10/26/2016	0.0331(J)	171	3.35	0.027(J)	5.84	1060	1800	Non-Detect	Non-Detect	0.0138	Non-Detect	Non-Detect	Non-Detect	0.0904	0.994	0.027(J)	Non-Detect	0.0293(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	11/21/2016	0.035(J)	179	3.34	0.027(J)	5.82	1100	1740	Non-Detect	0.00111(J)	0.0144	Non-Detect	Non-Detect	Non-Detect	0.0857	0.537(U)	0.027(J)	Non-Detect	0.0667	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	1/17/2017	0.0259(J)	188	3.58	0.066(J)	5.87	1160	1960	Non-Detect	Non-Detect	0.0135	Non-Detect	0.000311(J)	Non-Detect	0.0745	-0.0159(U)	0.066(J)	Non-Detect	0.0636	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	3/22/2017	0.0243(J)	155	3.4	0.13	6.01	900	1510	Non-Detect	Non-Detect	0.0132	Non-Detect	Non-Detect	Non-Detect	0.0328	0.279(U)	0.13	Non-Detect	0.0464(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	4/18/2017	0.0206(J)	156	2.6	0.16	6.02	870	1580	Non-Detect	Non-Detect	0.012	Non-Detect	Non-Detect	Non-Detect	0.0242	0.32(U)	0.16	Non-Detect	0.0446(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	5/31/2017	0.0234(J)	151	4.4	0.13	5.85	1100	1730	Non-Detect	Non-Detect	0.0126	Non-Detect	0.000212(J)	Non-Detect	0.0441	0.178(U)	0.13	Non-Detect	0.0496(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	8/23/2017	0.0267(J)	155	4.4	0.16	5.89	920	1550	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.16	n/a	n/a	n/a	n/a	n/a	n/a
MW-2	2/13/2018	n/a	n/a	n/a	0.22	6.21	n/a	n/a	Non-Detect	Non-Detect	0.0127	Non-Detect	Non-Detect	Non-Detect	0.0179	0.804	0.22	Non-Detect	0.0615	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	5/22/2018	0.0251(J)	172	3.2	0.17	6.04	1200	1500	Non-Detect	Non-Detect	0.0131	Non-Detect	Non-Detect	Non-Detect	0.028	0.0077(U)	0.17	Non-Detect	0.0465(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	6/12/2018	0.0275(J)	179	3.7	0.16	5.95	860	1550	Non-Detect	Non-Detect	0.0138	Non-Detect	Non-Detect	Non-Detect	0.0366	-0.315(U)	0.16	Non-Detect	0.0472(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	10/17/2018	0.0321(J)	200	4.6	0.16	5.9	970	1740	Non-Detect	Non-Detect	0.0137	Non-Detect	Non-Detect	Non-Detect	0.0745	0.574(U)	0.16	Non-Detect	0.0633	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	11/19/2018	0.0324(J)	221	3	0.18	6.03	1000	1990	Non-Detect	Non-Detect	0.0115	Non-Detect	Non-Detect	Non-Detect	0.0225	0.654	0.18	Non-Detect	0.0584	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	4/10/2019	Non-Detect	200	1.76	0.262	6.1	889	1250	0.000993(J)	Non-Detect	0.0111	Non-Detect	Non-Detect	Non-Detect	0.0152	n/a	0.262	Non-Detect	0.0574	Non-Detect	Non-Detect	0.00322(J)	Non-Detect
MW-2	5/14/2019	Non-Detect	170	2.87	0.164	6.07	873	1540	0.000875(J)	Non-Detect	0.0112	Non-Detect	Non-Detect	Non-Detect	0.0221	0.579	0.164	Non-Detect	0.0443	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	10/8/2019	0.0354(J)	188	4.28	0.159	5.96	1110	1820	Non-Detect	Non-Detect	0.0149	Non-Detect	Non-Detect	Non-Detect	0.0684	0.493(U)	0.159	Non-Detect	0.0681	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	10/16/2019	0.0419(J)	194	4.04	0.114	5.98	1170	1830	Non-Detect	Non-Detect	0.0146	Non-Detect	Non-Detect	Non-Detect	0.073	0.046(U)	0.114	Non-Detect	0.0661	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	4/6/2020	Non-Detect	152	2.43	0.207	6.21	786	1440	Non-Detect	Non-Detect	0.0125	Non-Detect	Non-Detect	Non-Detect	0.0116	0.212(U)	0.207	Non-Detect	0.0496	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-2	7/13/2020	Non-Detect	163	4.05	0.132	5.84	843	1540	Non-Detect	Non-Detect	0.0145	Non-Detect	Non-Detect	Non-Detect	0.0405	0.0814(U)	0.132	Non-Detect	0.0615	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Analytical Data Summary
Plant Gorgas CCR Landfill
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-3	4/25/2016	0.028(J)	224	1.32	0.243(J)	5.56	1890	2720	Non-Detect	Non-Detect	0.00803(J)	0.00122(J)	0.0121	0.00373(J)	0.232	0.484(U)	0.243(J)	Non-Detect	0.0964	Non-Detect	Non-Detect	Non-Detect	0.000205(J)
MW-3	6/22/2016	0.0433(J)	266	1.46	0.269(J)	5.57	2100	3250	Non-Detect	Non-Detect	0.0101	0.00144(J)	0.00163	0.00606(J)	0.332	0.2(U)	0.269(J)	Non-Detect	0.156	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	8/9/2016	0.0429(J)	260	1.35	0.363	5.67	2050	3050	Non-Detect	Non-Detect	0.00889(J)	0.00331	0.00122	Non-Detect	0.311	0.378(U)	0.363	Non-Detect	0.122	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	8/24/2016	0.0431(J)	274	1.47	0.346	5.63	2190	3080	Non-Detect	Non-Detect	0.00962(J)	0.00308	Non-Detect	Non-Detect	0.271	0.131(U)	0.346	Non-Detect	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	10/4/2016	0.04(J)	243	1.59	0.266(J)	5.69	1950	2900	Non-Detect	Non-Detect	0.00984(J)	0.00129(J)	0.000689(J)	Non-Detect	0.148	0.514(U)	0.266(J)	Non-Detect	0.0966	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	10/26/2016	0.0375(J)	254	1.27	0.266(J)	5.56	1980	2940	Non-Detect	Non-Detect	0.00878(J)	0.0071	0.00136	Non-Detect	0.236	0.755	0.266(J)	Non-Detect	0.134	Non-Detect	Non-Detect	Non-Detect	0.000209(J)
MW-3	11/21/2016	0.0406(J)	263	1.38	0.244(J)	5.42	2060	3090	Non-Detect	Non-Detect	0.00833(J)	0.00689	0.00171	Non-Detect	0.241	0.7	0.244(J)	Non-Detect	0.167	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	1/18/2017	0.0548(J)	431	1.34	0.385	5.11	2620	4020	Non-Detect	Non-Detect	0.00966(J)	0.0169	0.003	Non-Detect	0.347	0.606	0.385	Non-Detect	0.237	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	3/22/2017	0.0344(J)	318	2	0.41	4.52	3200	4180	Non-Detect	0.00122(J)	0.00991(J)	0.00686	0.00473	0.00945(J)	0.271	0.927	0.41	Non-Detect	0.203	Non-Detect	Non-Detect	0.0141	Non-Detect
MW-3	4/18/2017	Non-Detect	296	2.2	0.29	5.84	2500	4440	Non-Detect	Non-Detect	0.00976(J)	Non-Detect	0.00117	0.0105	0.00324(J)	0.334(U)	0.29	Non-Detect	0.0764	Non-Detect	Non-Detect	0.0158	Non-Detect
MW-3	5/31/2017	0.0454(J)	306	1.5(J)	0.37	4.56	2800	3970	Non-Detect	Non-Detect	0.00866(J)	0.00547	0.00296	Non-Detect	0.225	0.8	0.37	Non-Detect	0.218	Non-Detect	Non-Detect	0.00632(J)	Non-Detect
MW-3	8/23/2017	0.0425(J)	298	1.8(J)	0.55	4.77	2600	4050	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.55	n/a	n/a	n/a	n/a	n/a	n/a
MW-3	2/13/2018	n/a	n/a	n/a	0.27	5.67	n/a	n/a	Non-Detect	Non-Detect	0.00821(J)	Non-Detect	0.00232	Non-Detect	0.00661(J)	0.649	0.27	Non-Detect	0.0964	Non-Detect	Non-Detect	0.0209	Non-Detect
MW-3	5/24/2018	0.0339(J)	297	1.6(J)	0.6	5.19	2700	3680	Non-Detect	Non-Detect	0.00977(J)	0.00164(J)	0.00459	Non-Detect	0.158	0.448(U)	0.6	Non-Detect	0.145	Non-Detect	Non-Detect	0.00918(J)	Non-Detect
MW-3	6/12/2018	0.0371(J)	318	1.4(J)	0.53	4.79	2500	3820	Non-Detect	0.00103(J)	0.00997(J)	0.00306	0.00351	Non-Detect	0.291	0.234(U)	0.53	Non-Detect	0.194	Non-Detect	Non-Detect	0.00836(J)	Non-Detect
MW-3	10/17/2018	0.0596(J)	392	Non-Detect	0.63	4.75	2700	4730	Non-Detect	0.00133(J)	0.0126	0.0121	0.00393	Non-Detect	0.49	0.852	0.63	0.00102(J)	0.384	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-3	11/19/2018	0.0514(J)	387	Non-Detect	0.31	3.77(E)	3000	4710	Non-Detect	0.0012(J)	0.0109	0.0185	0.00309	Non-Detect	0.386	0.521	0.31	0.00692	0.323	Non-Detect	Non-Detect	0.00439(J)	0.000226(J)
MW-3	4/10/2019	Non-Detect	348	2.25	0.273	5.54	2460	3680	0.000978(J)	Non-Detect	0.0101	Non-Detect	0.00337	Non-Detect	0.0144	n/a	0.273	Non-Detect	0.0905	Non-Detect	Non-Detect	0.0113	Non-Detect
MW-3	5/14/2019	Non-Detect	254	2.28	0.281	5.71	2460	3580	Non-Detect	Non-Detect	0.00922(J)	Non-Detect	0.0013	Non-Detect	0.00536	0.176(U)	0.281	Non-Detect	0.0828	Non-Detect	Non-Detect	0.0119	Non-Detect
MW-3	10/8/2019	0.0537(J)	371	1.36	0.225	4.98	2950	4720	Non-Detect	0.0048(J)	0.0154	0.0084	0.00598	Non-Detect	1.07	0.833(U)	0.225	Non-Detect	0.419	Non-Detect	Non-Detect	0.00256(J)	Non-Detect
MW-3	10/16/2019	0.05(J)	346	1.4	0.106	4.51	2820	4210	Non-Detect	0.00389(J)	0.0128	0.0103	0.00448	Non-Detect	0.848	0.0279(U)	0.106	0.00108(J)	0.337	Non-Detect	Non-Detect	0.00286(J)	Non-Detect
MW-3	4/6/2020	Non-Detect	177	1.72	0.314	5.91	1670	2630	Non-Detect	Non-Detect	0.00931(J)	Non-Detect	0.000645(J)	Non-Detect	Non-Detect	0.569(U)	0.314	Non-Detect	0.0689	Non-Detect	Non-Detect	0.01	Non-Detect
MW-3	7/13/2020	0.0366(J)	264	1.34	0.13	5.16	2130	3650	Non-Detect	0.00316(J)	0.0142	0.0021(J)	0.00885	Non-Detect	0.47	0.53	0.13	Non-Detect	0.256	Non-Detect	Non-Detect	0.0134	Non-Detect

Analytical Data Summary
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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-4	4/25/2016	0.0414(J)	261	1.53	0.372	6.22	2260	3300	Non-Detect	Non-Detect	0.0114	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.434(U)	0.372	Non-Detect	0.0528	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	6/20/2016	0.0434(J)	295	1.85	0.361	6.21	2500	3870	Non-Detect	Non-Detect	0.0103	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.287(U)	0.361	Non-Detect	0.0554	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	8/9/2016	0.0453(J)	318	1.95	0.326	6.11	2750	4140	Non-Detect	Non-Detect	0.0119	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.516(U)	0.326	Non-Detect	0.0452(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	8/24/2016	0.0451(J)	319	2.07	0.329	6.11	2770	4190	Non-Detect	Non-Detect	0.0118	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.266(U)	0.329	Non-Detect	0.0488(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	10/3/2016	0.0511(J)	293	2.02	0.287(J)	6.13	3060	4190	Non-Detect	Non-Detect	0.0119	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.59(U)	0.287(J)	Non-Detect	0.0476(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	10/26/2016	0.0507(J)	311	2.07	0.194(J)	6.12	2650	4400	Non-Detect	Non-Detect	0.0104	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.164(U)	0.194(J)	Non-Detect	0.049(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	11/21/2016	0.0458(J)	320	2.39	0.192(J)	6.09	2720	4230	Non-Detect	Non-Detect	0.0106	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.296(U)	0.192(J)	Non-Detect	0.0477(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	1/18/2017	0.0445(J)	417	1.9	0.223(J)	6.09	2650	4120	Non-Detect	Non-Detect	0.0101	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0267(U)	0.223(J)	Non-Detect	0.045(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	3/22/2017	0.0432(J)	292	1.5(J)	0.32	6.15	2700	3980	Non-Detect	Non-Detect	0.0103	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.132(U)	0.32	Non-Detect	0.0493(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	4/18/2017	0.0409(J)	302	1.6(J)	0.32	6.19	2400	3880	Non-Detect	Non-Detect	0.0107	Non-Detect	Non-Detect	Non-Detect	Non-Detect	-0.0439(U)	0.32	Non-Detect	0.0494(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	5/31/2017	0.0392(J)	284	2.1	0.31	6.13	2700	4210	Non-Detect	Non-Detect	0.0104	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.3(U)	0.31	Non-Detect	0.0501	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	8/23/2017	0.042(J)	297	2.3	0.38	6.12	2700	3990	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.38	n/a	n/a	n/a	n/a	n/a	n/a
MW-4	2/13/2018	n/a	n/a	n/a	0.38	6.22	n/a	n/a	Non-Detect	Non-Detect	0.0111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.69	0.38	Non-Detect	0.0446(J)	Non-Detect	Non-Detect	0.00403(J)	Non-Detect
MW-4	5/23/2018	0.0433(J)	296	2	0.38	6.21	2400	3740	Non-Detect	Non-Detect	0.0107	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.186(U)	0.38	Non-Detect	0.0513	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	6/12/2018	0.0478(J)	355	1.7(J)	0.39	6.16	2600	4080	Non-Detect	Non-Detect	0.0108	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.153(U)	0.39	Non-Detect	0.0511	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	10/17/2018	0.0468(J)	342	1.5(J)	0.39	6.12	2600	4250	Non-Detect	Non-Detect	0.0119	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.313(U)	0.39	Non-Detect	0.0532	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	11/19/2018	0.0526(J)	289	Non-Detect	0.36	6.16	2400	3920	Non-Detect	Non-Detect	0.0107	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.794	0.36	Non-Detect	0.0467	Non-Detect	Non-Detect	0.00436(J)	Non-Detect
MW-4	4/10/2019	0.0438(J)	356	1.88	0.384	6.14	2090	3280	0.00097(J)	Non-Detect	0.0107	Non-Detect	Non-Detect	Non-Detect	Non-Detect	n/a	0.384	Non-Detect	0.0504	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	5/14/2019	Non-Detect	254	1.82	0.335	6.23	2240	3130	Non-Detect	Non-Detect	0.00949(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.352(U)	0.335	Non-Detect	0.0485	Non-Detect	Non-Detect	0.00201(J)	Non-Detect
MW-4	10/10/2019	0.0487(J)	302	1.93	0.304	6.15	2690	4000	Non-Detect	Non-Detect	0.0116	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.02(U)	0.304	Non-Detect	0.054	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	10/16/2019	0.0505(J)	356	1.92	0.302	6.19	3050	4060	Non-Detect	Non-Detect	0.0125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.356(U)	0.302	Non-Detect	0.052	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-4	4/6/2020	0.0428(J)	222	1.5	0.368	6.35	1810	2820	Non-Detect	Non-Detect	0.0115	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.459(U)	0.368	Non-Detect	0.0519	Non-Detect	Non-Detect	0.00284(J)	Non-Detect
MW-4	7/14/2020	0.0441(J)	259	1.61	0.33	6.2	1970	3310	Non-Detect	Non-Detect	0.0122	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.169(U)	0.33	Non-Detect	0.0543	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-5	4/25/2016	0.0301(J)	399	5.44	6.37	0.307	2390	3660	Non-Detect	0.00138(J)	0.016	Non-Detect	Non-Detect	Non-Detect	0.00287(J)	0.611	0.307	Non-Detect	0.0977	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	6/21/2016	0.0304(J)	295	6.32	6.35	0.337	2500	3920	Non-Detect	Non-Detect	0.0112	Non-Detect	Non-Detect	Non-Detect	0.00228(J)	0.304(U)	0.337	Non-Detect	0.0972	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	10/12/2017	0.0285(J)	394	7.9	6.38	0.35	2300	4000	Non-Detect	Non-Detect	0.0122	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.627(U)	0.35	Non-Detect	0.093	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	10/13/2017	0.0287(J)	389	8(B)	6.43	0.36	2300	3960	Non-Detect	Non-Detect	0.0115	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.391(U)	0.36	Non-Detect	0.0935	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	10/14/2017	0.0305(J)	391	7.4	6.41	0.37	2300	3910	Non-Detect	Non-Detect	0.0099(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.2(U)	0.37	Non-Detect	0.0931	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	10/15/2017	0.0319(J)	332	7.2	6.42	0.37	2300	3890	Non-Detect	Non-Detect	0.0103	Non-Detect	Non-Detect	Non-Detect	0.00203(J)	0.806(U)	0.37	Non-Detect	0.0968	Non-Detect	Non-Detect	0.00254(J)	Non-Detect
MW-5	10/16/2017	0.0304(J)	380	8.1	6.42	0.36	2300	3980	Non-Detect	Non-Detect	0.0101	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.564(U)	0.36	Non-Detect	0.0963	Non-Detect	Non-Detect	Non-Detect	0.000375(J)
MW-5	10/17/2017	0.036(J)	377	7.9	6.41	0.35	2200	3940	Non-Detect	Non-Detect	0.00968(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.178(U)	0.35	Non-Detect	0.0949	Non-Detect	Non-Detect	0.00288(J)	Non-Detect
MW-5	11/16/2017	0.0377(J)	368	8.1	6.53	0.37	2200	3930	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.37	n/a	n/a	n/a	n/a	n/a	n/a
MW-5	2/14/2018	n/a	n/a	n/a	6.39	0.33	n/a	n/a	Non-Detect	Non-Detect	0.0114	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.955	0.33	Non-Detect	0.0989	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	5/23/2018	0.0301(J)	405	7	6.39	0.29	2400	3660	Non-Detect	Non-Detect	0.0138	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.543	0.29	Non-Detect	0.103	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	11/20/2018	0.0357(J)	414	7.4	6.39	0.32	2500	3780	Non-Detect	Non-Detect	0.0105	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.687	0.32	Non-Detect	0.102	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	5/14/2019	Non-Detect	441	6.24	6.34	0.22	2380	3520	Non-Detect	0.00153(J)	0.0111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.663	0.22	Non-Detect	0.116	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	10/10/2019	0.0323(J)	386	7.88	6.43	0.338	2460	3830	Non-Detect	Non-Detect	0.0105	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.811(U)	0.338	Non-Detect	0.0981	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	4/7/2020	0.0399(J)	432	4.83	0.225	6.43	2050	3270	Non-Detect	0.00163(J)	0.0137	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.48(U)	0.225	Non-Detect	0.133	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-5	7/14/2020	0.033(J)	395	6.84	0.263	6.48	2080	3710	Non-Detect	Non-Detect	0.0124	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.521	0.263	Non-Detect	0.11	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-6	4/27/2016	0.075(J)	411	2.19	6.18	0.131(J)	2090	3290	Non-Detect	0.005	0.012	Non-Detect	Non-Detect	Non-Detect	0.0287	0.956	0.131(J)	Non-Detect	0.253	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	6/21/2016	0.0729(J)	318	2.56	6.23	0.153(J)	2000	3250	Non-Detect	0.00473(J)	0.0133	Non-Detect	Non-Detect	Non-Detect	0.0269	0.748	0.153(J)	Non-Detect	0.253	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	10/12/2017	0.0806(J)	421	3.4	6.22	0.15	2000	3220	Non-Detect	0.0051	0.0134	Non-Detect	Non-Detect	Non-Detect	0.0279	0.564(U)	0.15	Non-Detect	0.249	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	10/13/2017	0.0803(J)	396	3(B)	6.23	0.15	2000	3250	Non-Detect	0.00487(J)	0.0124	Non-Detect	Non-Detect	Non-Detect	0.0271	1.36(U)	0.15	Non-Detect	0.249	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	10/14/2017	0.0828(J)	400	2.8	6.22	0.14	1900	3260	Non-Detect	0.00476(J)	0.0129	Non-Detect	Non-Detect	Non-Detect	0.0296	1.59(U)	0.14	Non-Detect	0.244	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	10/15/2017	0.0852(J)	378	1.9(J)	6.22	0.14	1900	3260	Non-Detect	0.00475(J)	0.0136	Non-Detect	Non-Detect	Non-Detect	0.0303	1.22(U)	0.14	Non-Detect	0.259	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	10/16/2017	0.0858(J)	402	1.8(J)	6.21	0.14	1900	3360	Non-Detect	0.00482(J)	0.0131	Non-Detect	Non-Detect	Non-Detect	0.0274	1.57(U)	0.14	Non-Detect	0.259	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	10/17/2017	0.0846(J)	373	3.1	6.2	0.14	1900	3420	Non-Detect	0.0048(J)	0.0126	Non-Detect	Non-Detect	Non-Detect	0.0274	0.631(U)	0.14	Non-Detect	0.249	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	11/16/2017	0.0772(J)	367	3.5	6.28	0.14	1800	3280	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.14	n/a	n/a	n/a	n/a	n/a	n/a
MW-6	2/14/2018	n/a	n/a	n/a	6.17	0.13	n/a	n/a	Non-Detect	0.00493(J)	0.0142	Non-Detect	Non-Detect	Non-Detect	0.0305	0.969	0.13	Non-Detect	0.242	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	5/23/2018	0.0757(J)	425	2.6	6.12	0.13	2000	3340	Non-Detect	0.0058	0.0145	Non-Detect	Non-Detect	Non-Detect	0.0409	0.918	0.13	Non-Detect	0.266	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	11/20/2018	0.0915(J)	449	2.7	6.14	0.14	2200	3330	Non-Detect	0.00542	0.0127	Non-Detect	Non-Detect	Non-Detect	0.0327	1.15	0.14	Non-Detect	0.245	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	5/15/2019	0.0616(J)	345	4.45	5.72	0.133	2110	3130	Non-Detect	0.00383(J)	0.0121	0.000677(J)	0.000858(J)	Non-Detect	0.265	1.56	0.133	Non-Detect	0.152	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	10/10/2019	0.0919(J)	461	3.61	6.16	0.124	2330	3260	Non-Detect	0.00473(J)	0.0152	Non-Detect	Non-Detect	Non-Detect	0.0425	1.71	0.124	Non-Detect	0.251	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	4/8/2020	0.0499(J)	242	4.63	Non-Detect	4.98	1900	2940	Non-Detect	0.00232(J)	0.0128	0.000788(J)	0.00204	Non-Detect	0.479	0.179(U)	Non-Detect	Non-Detect	0.0489	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-6	7/14/2020	0.0838(J)	406	3.25	0.115	6.12	1970	3270	Non-Detect	0.0048(J)	0.0154	Non-Detect	Non-Detect	Non-Detect	0.0916	0.578	0.115	Non-Detect	0.223	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Analytical Data Summary
Plant Gorgas CCR Landfill
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-7	4/27/2016	0.253	198	1.71	0.2(J)	6.6	1050	1640	Non-Detect	Non-Detect	0.0107	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.374(U)	0.2(J)	Non-Detect	0.163	Non-Detect	Non-Detect	0.00445(J)	Non-Detect
MW-7	6/21/2016	0.0768(J)	327	2.04	0.163(J)	6.62	1410	2460	Non-Detect	0.00165(J)	0.0129	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.151(U)	0.163(J)	Non-Detect	0.171	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	10/12/2017	0.0685(J)	317	31	0.17	6.64	1400	2460	Non-Detect	0.00188(J)	0.014	Non-Detect	Non-Detect	Non-Detect	0.00269(J)	0.182(U)	0.17	Non-Detect	0.134	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	10/13/2017	0.0674(J)	302	32	0.19	6.64	1400	2420	Non-Detect	0.00181(J)	0.0147	Non-Detect	Non-Detect	Non-Detect	0.00341(J)	0.517(U)	0.19	Non-Detect	0.127	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	10/14/2017	0.0756(J)	283	33	0.2	6.66	1300	2320	Non-Detect	0.00127(J)	0.0123	Non-Detect	Non-Detect	Non-Detect	0.00451(J)	0.43(U)	0.2	Non-Detect	0.112	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	10/15/2017	0.0719(J)	294	34	0.2	6.67	1300	1150	Non-Detect	0.00144(J)	0.0132	Non-Detect	Non-Detect	Non-Detect	0.00371(J)	0.45(U)	0.2	Non-Detect	0.129	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	10/16/2017	0.0726(J)	284	34	0.2	6.67	1300	2320	Non-Detect	0.00139(J)	0.0122	Non-Detect	Non-Detect	Non-Detect	0.00371(J)	0.55(U)	0.2	Non-Detect	0.122	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	10/17/2017	0.0716(J)	294	34	0.19	6.66	1300	2360	Non-Detect	0.00138(J)	0.0121	Non-Detect	Non-Detect	Non-Detect	0.0035(J)	0.474(U)	0.19	Non-Detect	0.122	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	11/16/2017	0.0644(J)	299	35	0.18	6.62	1300	2460	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.18	n/a	n/a	n/a	n/a	n/a	n/a
MW-7	2/14/2018	n/a	n/a	n/a	0.18	6.67	n/a	n/a	Non-Detect	0.00131(J)	0.0119	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.736	0.18	Non-Detect	0.131	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	5/23/2018	0.0715(J)	321	28	0.18	6.63	1900	2390	Non-Detect	0.00155(J)	0.0135	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0192(U)	0.18	Non-Detect	0.129	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	11/20/2018	0.0772(J)	306	20	0.19	6.61	1100	2090	Non-Detect	0.00133(J)	0.0116	Non-Detect	Non-Detect	Non-Detect	0.00306(J)	0.494	0.19	Non-Detect	0.12	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	5/15/2019	0.0678(J)	302	15.9	0.169	6.61	1510	2310	Non-Detect	0.00138(J)	0.0114	Non-Detect	Non-Detect	Non-Detect	0.00234(J)	0.61	0.169	Non-Detect	0.127	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	10/8/2019	0.073(J)	294	16.8	0.183	6.52	1570	2340	Non-Detect	0.00145(J)	0.0145	Non-Detect	Non-Detect	Non-Detect	0.00408(J)	0.345(U)	0.183	Non-Detect	0.131	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	4/8/2020	0.077(J)	280	10.6	0.153	6.64	1270	2230	Non-Detect	0.00136(J)	0.0127	Non-Detect	Non-Detect	Non-Detect	0.00394(J)	0.237(U)	0.153	Non-Detect	0.117	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-7	7/14/2020	0.0865(J)	261	9.68	0.193	6.52	1330	2210	Non-Detect	0.00147(J)	0.0148	Non-Detect	Non-Detect	Non-Detect	0.00653	0.434	0.193	Non-Detect	0.103	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Analytical Data Summary
Plant Gorgas CCR Landfill
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-8	4/27/2016	0.0662(J)	282	2.34	0.212(J)	6.55	1550	2480	Non-Detect	Non-Detect	0.0108	Non-Detect	Non-Detect	Non-Detect	0.00436(J)	-0.207(U)	0.212(J)	Non-Detect	0.171	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	6/21/2016	0.0681(J)	291	2.29	0.211(J)	6.47	1470	2360	Non-Detect	0.00101(J)	0.0116	Non-Detect	Non-Detect	Non-Detect	0.00484(J)	0.529	0.211(J)	Non-Detect	0.181	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	10/12/2017	0.0687(J)	300	150	0.22	6.5	1400	2530	Non-Detect	0.00197(J)	0.0141	Non-Detect	Non-Detect	Non-Detect	0.005(J)	0.267(U)	0.22	Non-Detect	0.182	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	10/13/2017	0.0831(J)	298	130	0.23	6.51	1600	2740	Non-Detect	0.00159(J)	0.0148	Non-Detect	Non-Detect	Non-Detect	0.0052(J)	0.873(U)	0.23	Non-Detect	0.189	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	10/14/2017	0.0702(J)	299	140	0.22	6.53	1400	2630	Non-Detect	0.00126(J)	0.0134	Non-Detect	Non-Detect	Non-Detect	0.00513(J)	1.6(U)	0.22	Non-Detect	0.177	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	10/15/2017	0.0702(J)	307	130	0.22	6.53	1400	2530	Non-Detect	0.00106(J)	0.0139	Non-Detect	Non-Detect	Non-Detect	0.00518(J)	0.327(U)	0.22	Non-Detect	0.191	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	10/16/2017	0.0707(J)	299	140	0.22	6.54	1400	2740	Non-Detect	0.00106(J)	0.0129	Non-Detect	Non-Detect	Non-Detect	0.00453(J)	0.524(U)	0.22	Non-Detect	0.189	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	10/17/2017	0.0695(J)	294	140	0.21	6.54	1400	2650	Non-Detect	0.00103(J)	0.0126	Non-Detect	Non-Detect	Non-Detect	0.00463(J)	0.0455(U)	0.21	Non-Detect	0.184	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	11/16/2017	0.0675(J)	308	130	0.22	6.51	1400	2650	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.22	n/a	n/a	n/a	n/a	n/a	n/a
MW-8	2/14/2018	n/a	n/a	n/a	0.21	6.55	n/a	n/a	Non-Detect	0.00185(J)	0.0126	Non-Detect	Non-Detect	Non-Detect	0.00441(J)	0.633	0.21	Non-Detect	0.183	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	5/23/2018	0.0693(J)	344	75	0.21	6.52	2100	2750	Non-Detect	0.00157(J)	0.0137	Non-Detect	Non-Detect	Non-Detect	0.00466(J)	0.377(U)	0.21	Non-Detect	0.194	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	11/20/2018	0.0771(J)	327	45	0.21	6.58	1400	2520	Non-Detect	0.00173(J)	0.0123	Non-Detect	Non-Detect	Non-Detect	0.00551	0.28(U)	0.21	Non-Detect	0.181	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	5/15/2019	0.0689(J)	305	52	0.192	6.6	1640	2540	Non-Detect	0.00136(J)	0.0122	Non-Detect	Non-Detect	Non-Detect	0.00643	0.697	0.192	Non-Detect	0.16	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	10/9/2019	0.0723(J)	329	39.2	0.189	6.67	1550	2590	Non-Detect	0.00142(J)	0.0137	Non-Detect	Non-Detect	Non-Detect	0.00864	0.416(U)	0.189	Non-Detect	0.163	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	4/8/2020	0.0683(J)	281	24.9	0.192	6.7	1380	2450	Non-Detect	0.00102(J)	0.0137	Non-Detect	Non-Detect	Non-Detect	0.00762	1.38(U)	0.192	Non-Detect	0.149	Non-Detect	Non-Detect	Non-Detect	Non-Detect
MW-8	7/15/2020	0.0723(J)	280	23.8	0.196	6.71	1410	2460	Non-Detect	0.00212(J)	0.0143	Non-Detect	Non-Detect	Non-Detect	0.00821	0.398(U)	0.196	Non-Detect	0.152	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Appendix B

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative

Plant Gorgas Landfill

2020 Compliance Event 1

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Rain showers were present when sampling wells MW-5 and MW-13.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verifications for all required field parameters were performed daily, before and after sample collection.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWGORLF_1272

Project/Site : Gorgas Landfill
Parrish, AL 35580

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Alabama Power

May 01, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between April 07, 2020 and April 09, 2020. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2020

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

Sincerely,

Quality Control: Laura Midkiff
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.05.04 10:39:51 -05'00'

Supervision: T. Durant Maske
Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.05.04 13:45:22 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

Alabama Power Lab & Field SERVICES

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Metals ICP

Gorgas Landfill

WMWGORLF_1272

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA06596	670419	WMWGORLF_1272
BA06597	670419	WMWGORLF_1272
BA06598	670419	WMWGORLF_1272
BA06599	670419	WMWGORLF_1272
BA06600	670419	WMWGORLF_1272
BA06601	670419	WMWGORLF_1272
BA06745	670419	WMWGORLF_1272
BA06746	670419	WMWGORLF_1272
BA06747	670419	WMWGORLF_1272
BA06748	670419	WMWGORLF_1272
BA06749	670420	WMWGORLF_1272
BA06750	670420	WMWGORLF_1272
BA06751	670420	WMWGORLF_1272
BA06752	670420	WMWGORLF_1272
BA06753	670420	WMWGORLF_1272
BA06754	670420	WMWGORLF_1272
BA06755	670420	WMWGORLF_1272
BA06756	670420	WMWGORLF_1272
BA06757	670420	WMWGORLF_1272
BA06758	670420	WMWGORLF_1272
BA06759	670421	WMWGORLF_1272
BA06760	670421	WMWGORLF_1272
BA06761	670421	WMWGORLF_1272
BA06762	670421	WMWGORLF_1272
BA06763	670421	WMWGORLF_1272

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA06596	Calcium	20.3
BA06597	Calcium	20.3
BA06598	Calcium	20.3
BA06599	Calcium	20.3
BA06600	Calcium	20.3
BA06745	Calcium	20.3
BA06747	Calcium	20.3
BA06748	Calcium	20.3
BA06749	Calcium	20.3
BA06750	Calcium	20.3
BA06751	Calcium	20.3
BA06752	Calcium	20.3
BA06753	Calcium	20.3
BA06754	Calcium	20.3
BA06755	Calcium	20.3
BA06756	Calcium	20.3
BA06757	Calcium	20.3
BA06758	Calcium	20.3
BA06759	Calcium	20.3
BA06760	Calcium	20.3
BA06761	Calcium	20.3
BA06762	Calcium	20.3

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Metals ICPMS

Gorgas Landfill

WMWGORLF_1272

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA06596	670839	WMWGORLF_1272
BA06597	670839	WMWGORLF_1272
BA06598	670839	WMWGORLF_1272
BA06599	670839	WMWGORLF_1272
BA06600	670839	WMWGORLF_1272
BA06601	670839	WMWGORLF_1272
BA06745	670839	WMWGORLF_1272
BA06746	670839	WMWGORLF_1272
BA06747	670839	WMWGORLF_1272
BA06748	670839	WMWGORLF_1272
BA06749	670840	WMWGORLF_1272
BA06750	670840	WMWGORLF_1272
BA06751	670840	WMWGORLF_1272
BA06752	670840	WMWGORLF_1272
BA06753	670840	WMWGORLF_1272
BA06754	670840	WMWGORLF_1272
BA06755	670840	WMWGORLF_1272
BA06756	670840	WMWGORLF_1272
BA06757	670840	WMWGORLF_1272
BA06758	670840	WMWGORLF_1272
BA06759	670841	WMWGORLF_1272
BA06760	670841	WMWGORLF_1272
BA06761	670841	WMWGORLF_1272
BA06762	670841	WMWGORLF_1272
BA06763	670841	WMWGORLF_1272

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Mercury

Gorgas Landfill

WMWGORLF_1272

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA06596	670473	WMWGORLF_1272
BA06597	670473	WMWGORLF_1272
BA06598	670473	WMWGORLF_1272
BA06599	670473	WMWGORLF_1272
BA06600	670473	WMWGORLF_1272
BA06601	670473	WMWGORLF_1272
BA06745	670473	WMWGORLF_1272
BA06746	670473	WMWGORLF_1272
BA06747	670473	WMWGORLF_1272
BA06748	670473	WMWGORLF_1272
BA06749	670474	WMWGORLF_1272
BA06750	670474	WMWGORLF_1272
BA06751	670474	WMWGORLF_1272
BA06752	670474	WMWGORLF_1272
BA06753	670474	WMWGORLF_1272
BA06754	670474	WMWGORLF_1272
BA06755	670474	WMWGORLF_1272
BA06756	670474	WMWGORLF_1272
BA06757	670474	WMWGORLF_1272
BA06758	670474	WMWGORLF_1272
BA06759	670475	WMWGORLF_1272
BA06760	670475	WMWGORLF_1272
BA06761	670475	WMWGORLF_1272
BA06762	670475	WMWGORLF_1272
BA06763	670475	WMWGORLF_1272

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

TDS

Gorgas Landfill

WMWGORLF_1272

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA06596	670446	WMWGORLF_1272
BA06597	670446	WMWGORLF_1272
BA06598	670446	WMWGORLF_1272
BA06599	670446	WMWGORLF_1272
BA06600	670446	WMWGORLF_1272
BA06601	670446	WMWGORLF_1272
BA06745	670446	WMWGORLF_1272
BA06746	670446	WMWGORLF_1272
BA06747	670446	WMWGORLF_1272
BA06748	670446	WMWGORLF_1272
BA06749	670447	WMWGORLF_1272
BA06750	670447	WMWGORLF_1272
BA06751	670447	WMWGORLF_1272
BA06752	670447	WMWGORLF_1272
BA06753	670447	WMWGORLF_1272
BA06754	670447	WMWGORLF_1272
BA06755	670447	WMWGORLF_1272
BA06756	670447	WMWGORLF_1272
BA06757	670447	WMWGORLF_1272
BA06758	670447	WMWGORLF_1272
BA06759	670651	WMWGORLF_1272
BA06760	670651	WMWGORLF_1272
BA06761	670651	WMWGORLF_1272
BA06762	670651	WMWGORLF_1272
BA06763	670651	WMWGORLF_1272

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
    - BA06601
    - BA06746
    - BA06763

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Anions

Gorgas Landfill

WMWGORLF_1272

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA06596	670643, 670646, & 670906	WMWGORLF_1272
BA06597	670643, 670646, & 670906	WMWGORLF_1272
BA06598	670643, 670646, & 670906	WMWGORLF_1272
BA06599	670643, 670646, & 670906	WMWGORLF_1272
BA06600	670643, 670646, & 670906	WMWGORLF_1272
BA06601	670643, 670646, & 670906	WMWGORLF_1272
BA06745	670643, 670646, & 670906	WMWGORLF_1272
BA06746	670643, 670646, & 670906	WMWGORLF_1272
BA06747	670643, 670646, & 670906	WMWGORLF_1272
BA06748	670643, 670646, & 670906	WMWGORLF_1272
BA06749	670644, 670647, & 670907	WMWGORLF_1272
BA06750	670644, 670647, & 670907	WMWGORLF_1272
BA06751	670644, 670647, & 670907	WMWGORLF_1272
BA06752	670644, 670647, & 670907	WMWGORLF_1272
BA06753	670644, 670647, & 670907	WMWGORLF_1272
BA06754	670644, 670647, & 670907	WMWGORLF_1272
BA06755	670644, 670647, & 670907	WMWGORLF_1272
BA06756	670644, 670647, & 670907	WMWGORLF_1272
BA06757	670644, 670647, & 670907	WMWGORLF_1272
BA06758	670644, 670647, & 670907	WMWGORLF_1272
BA06759	670645, 670648, & 670908	WMWGORLF_1272
BA06760	670645, 670648, & 670908	WMWGORLF_1272
BA06761	670645, 670648, & 670908	WMWGORLF_1272
BA06762	670645, 670648, & 670908	WMWGORLF_1272
BA06763	670645, 670648, & 670908	WMWGORLF_1272

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA06596	Sulfate	40
BA06597	Sulfate	50
BA06598	Sulfate	80
BA06599	Sulfate	80
BA06600	Sulfate	100
BA06745	Chloride & Sulfate	5 & 50
BA06747	Sulfate	100
BA06748	Chloride & Sulfate	8 & 100
BA06749	Sulfate	50
BA06750	Sulfate	50
BA06751	Sulfate	100
BA06752	Sulfate	80
BA06753	Sulfate	80
BA06754	Sulfate	50
BA06755	Sulfate	80
BA06756	Sulfate	80
BA06757	Chloride & Sulfate	20 & 50
BA06758	Sulfate	50
BA06759	Sulfate	80
BA06760	Sulfate	80
BA06761	Sulfate	50
BA06762	Chloride & Sulfate	2 & 50

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-2

Location Code: WMWGORLF
Collected: 4/6/20 11:32
Customer ID:
Submittal Date: 4/7/20 15:24

Laboratory ID Number: BA06596

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 10:46		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/10/20 09:30	4/14/20 11:54		20.3	152	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 10:46		1.015	0.0496	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 10:40		1.015	0.0125	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:40		1.015	0.0116	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 10:40		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	1440	mg/L		100	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:44	4/13/20 10:44		1	2.43	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:49	4/13/20 12:49		1	0.207	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:15	4/14/20 15:15		40	786	mg/L	20.00	40	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/6/20 11:29	4/6/20 11:29			1633.26	uS/cm			FA
pH	4/6/20 11:29	4/6/20 11:29			6.21	SU			FA
Temperature	4/6/20 11:29	4/6/20 11:29			19.41	C			FA
Turbidity	4/6/20 11:29	4/6/20 11:29			3.69	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 11:32
Customer ID:
Delivery Date: 4/7/20 15:24

Description: Gorgas Landfill - MW-2

Laboratory ID Number: BA06596

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 11:32
Customer ID:
Delivery Date: 4/7/20 15:24

Description: Gorgas Landfill - MW-2

Laboratory ID Number: BA06596

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-1

Location Code: WMWGORLF
Collected: 4/6/20 12:35
Customer ID:
Submittal Date: 4/7/20 15:24

Laboratory ID Number: BA06597

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 10:49		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/10/20 09:30	4/14/20 11:57		20.3	149	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 10:49		1.015	0.0278	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:43		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:43		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 10:43		1.015	0.00971	mg/L	0.002	0.01	J
* Beryllium, Total	4/9/20 13:30	4/10/20 10:43		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:43		1.015	0.00184	mg/L	0.0003	0.001	
* Chromium, Total	4/9/20 13:30	4/10/20 10:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:43		1.015	0.0417	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 10:43		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:43		1.015	0.00275	mg/L	0.002	0.01	J
* Thallium, Total	4/9/20 13:30	4/10/20 10:43		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2240	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:45	4/13/20 10:45		1	2.01	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:51	4/13/20 12:51		1	0.101	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:16	4/14/20 15:16		50	1530	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/6/20 12:30	4/6/20 12:30			2297.00	uS/cm			FA
pH	4/6/20 12:30	4/6/20 12:30			5.21	SU			FA
Temperature	4/6/20 12:30	4/6/20 12:30			20.52	C			FA
Turbidity	4/6/20 12:30	4/6/20 12:30			1.92	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 12:35
Customer ID:
Delivery Date: 4/7/20 15:24

Description:Gorgas Landfill - MW-1

Laboratory ID Number: BA06597

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 12:35
Customer ID:
Delivery Date: 4/7/20 15:24

Description: Gorgas Landfill - MW-1

Laboratory ID Number: BA06597

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-3

Location Code: WMWGORLF
Collected: 4/6/20 13:40
Customer ID:
Submittal Date: 4/7/20 15:24

Laboratory ID Number: BA06598

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 10:51		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/10/20 09:30	4/14/20 12:00		20.3	177	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 10:51		1.015	0.0689	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 10:45		1.015	0.00931	mg/L	0.002	0.01	J
* Beryllium, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:45		1.015	0.000645	mg/L	0.0003	0.001	J
* Chromium, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:45		1.015	0.0100	mg/L	0.002	0.01	
* Thallium, Total	4/9/20 13:30	4/10/20 10:45		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2630	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:46	4/13/20 10:46		1	1.72	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:52	4/13/20 12:52		1	0.314	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:18	4/14/20 15:18		80	1670	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/6/20 13:38	4/6/20 13:38			2462.99	uS/cm			FA
pH	4/6/20 13:38	4/6/20 13:38			5.91	SU			FA
Temperature	4/6/20 13:38	4/6/20 13:38			23.28	C			FA
Turbidity	4/6/20 13:38	4/6/20 13:38			7.59	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 13:40
Customer ID:
Delivery Date: 4/7/20 15:24

Description:Gorgas Landfill - MW-3

Laboratory ID Number: BA06598

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 13:40
Customer ID:
Delivery Date: 4/7/20 15:24

Description: Gorgas Landfill - MW-3

Laboratory ID Number: BA06598

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-4

Location Code: WMWGORLF
Collected: 4/6/20 14:58
Customer ID:
Submittal Date: 4/7/20 15:24

Laboratory ID Number: BA06599

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 10:54		1.015	0.0428	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:03		20.3	222	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 10:54		1.015	0.0519	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 10:48		1.015	0.0115	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:48		1.015	0.00284	mg/L	0.002	0.01	J
* Thallium, Total	4/9/20 13:30	4/10/20 10:48		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2820	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:47	4/13/20 10:47		1	1.50	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:53	4/13/20 12:53		1	0.368	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:19	4/14/20 15:19		80	1810	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/6/20 14:54	4/6/20 14:54			2789.74	uS/cm			FA
pH	4/6/20 14:54	4/6/20 14:54			6.35	SU			FA
Temperature	4/6/20 14:54	4/6/20 14:54			20.60	C			FA
Turbidity	4/6/20 14:54	4/6/20 14:54			4.65	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 14:58
Customer ID:
Delivery Date: 4/7/20 15:24

Description:Gorgas Landfill - MW-4

Laboratory ID Number: BA06599

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 14:58
Customer ID:
Delivery Date: 4/7/20 15:24

Description: Gorgas Landfill - MW-4

Laboratory ID Number: BA06599

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 4/7/20 11:55
Customer ID:
Submittal Date: 4/7/20 15:24

Laboratory ID Number: BA06600

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 10:57		1.015	0.0399	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:06		20.3	432	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 10:57		1.015	0.133	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:51		1.015	0.00163	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 10:51		1.015	0.0137	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 10:51		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	3270	mg/L		178.6	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:48	4/13/20 10:48		1	4.83	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:54	4/13/20 12:54		1	0.225	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:20	4/14/20 15:20		100	2050	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/7/20 11:49	4/7/20 11:49			3169.22	uS/cm			FA
pH	4/7/20 11:49	4/7/20 11:49			6.43	SU			FA
Temperature	4/7/20 11:49	4/7/20 11:49			20.76	C			FA
Turbidity	4/7/20 11:49	4/7/20 11:49			4.98	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/7/20 11:55
Customer ID:
Delivery Date: 4/7/20 15:24

Description:Gorgas Landfill - MW-5

Laboratory ID Number: BA06600

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/7/20 11:55
Customer ID:
Delivery Date: 4/7/20 15:24

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BA06600

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Field Blank

Location Code: WMWGORLFFB
Collected: 4/7/20 12:30
Customer ID:
Submittal Date: 4/7/20 15:24

Laboratory ID Number: BA06601

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:00		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/10/20 09:30	4/14/20 11:00		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/10/20 09:30	4/14/20 11:00		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 10:53		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:50	4/13/20 10:50		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:55	4/13/20 12:55		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:21	4/14/20 15:21		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFFB
Sample Date: 4/7/20 12:30
Customer ID:
Delivery Date: 4/7/20 15:24

Description:Gorgas Landfill Field Blank

Laboratory ID Number: BA06601

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFFB
Sample Date: 4/7/20 12:30
Customer ID:
Delivery Date: 4/7/20 15:24

Description: Gorgas Landfill Field Blank

Laboratory ID Number: BA06601

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 4/6/20 11:45
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06745

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:03		1.015	0.149	mg/L	0.03	0.1	
* Calcium, Total	4/10/20 09:30	4/14/20 12:09		20.3	301	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:03		1.015	0.298	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:56		1.015	0.00731	mg/L	0.001	0.005	
* Barium, Total	4/9/20 13:30	4/10/20 10:56		1.015	0.0190	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 10:56		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2310	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:51	4/13/20 10:51		5	79.4	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:57	4/13/20 12:57		1	0.188	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:22	4/14/20 15:22		50	1360	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/6/20 11:42	4/6/20 11:42			2748.08	uS/cm			FA
pH	4/6/20 11:42	4/6/20 11:42			6.79	SU			FA
Temperature	4/6/20 11:42	4/6/20 11:42			21.46	C			FA
Turbidity	4/6/20 11:42	4/6/20 11:42			2.08	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 11:45
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-12V

Laboratory ID Number: BA06745

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 11:45
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BA06745

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Field Blank

Location Code: WMWGORLFFB
Collected: 4/6/20 12:12
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06746

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:06		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/10/20 09:30	4/14/20 11:06		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/10/20 09:30	4/14/20 11:06		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 10:59		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:52	4/13/20 10:52		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:58	4/13/20 12:58		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:24	4/14/20 15:24		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFFB
Sample Date: 4/6/20 12:12
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill Field Blank

Laboratory ID Number: BA06746

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFFB
Sample Date: 4/6/20 12:12
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill Field Blank

Laboratory ID Number: BA06746

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 4/6/20 12:52
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06747

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:09		1.015	0.229	mg/L	0.03	0.1	
* Calcium, Total	4/10/20 09:30	4/14/20 12:12		20.3	354	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:09		1.015	0.0786	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:01		1.015	0.0597	mg/L	0.001	0.005	
* Barium, Total	4/9/20 13:30	4/10/20 11:01		1.015	0.0128	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:01		1.015	0.0537	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:01		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	4060	mg/L		208.3	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:53	4/13/20 10:53		1	8.58	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 12:59	4/13/20 12:59		1	0.254	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:25	4/14/20 15:25		100	2580	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/6/20 12:49	4/6/20 12:49			3816.86	uS/cm			FA
pH	4/6/20 12:49	4/6/20 12:49			5.81	SU			FA
Temperature	4/6/20 12:49	4/6/20 12:49			21.97	C			FA
Turbidity	4/6/20 12:49	4/6/20 12:49			7.38	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 12:52
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-12

Laboratory ID Number: BA06747

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 12:52
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BA06747

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF
Collected: 4/6/20 14:22
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06748

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:12		1.015	0.109	mg/L	0.03	0.1	
* Calcium, Total	4/10/20 09:30	4/14/20 12:15		20.3	333	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:12		1.015	0.282	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 11:04		1.015	0.0147	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:04		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 10:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2430	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 10:56	4/13/20 10:56		8	100	mg/L	4.00	8	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:00	4/13/20 13:00		1	0.118	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 15:26	4/14/20 15:26		100	1400	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/6/20 14:18	4/6/20 14:18			2910.71	uS/cm			FA
pH	4/6/20 14:18	4/6/20 14:18			6.72	SU			FA
Temperature	4/6/20 14:18	4/6/20 14:18			22.45	C			FA
Turbidity	4/6/20 14:18	4/6/20 14:18			0.76	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 14:22
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-11

Laboratory ID Number: BA06748

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.17	1.18	1.04	0.85 to 1.15	106	70 to 130	0.851	20
BA06748	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.113	0.117	0.0980	0.085 to 0.115	98.3	70 to 130	3.48	20
BA06748	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.537	0.541	0.204	0.17 to 0.23	128	70 to 130	0.742	20
BA06748	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.100	0.100	0.0975	0.085 to 0.115	100	70 to 130	0.00	20
BA06748	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.102	0.107	0.103	0.085 to 0.115	102	70 to 130	4.78	20
BA06748	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0984	0.0989	0.102	0.085 to 0.115	98.4	70 to 130	0.507	20
BA06748	Mercury, Total by CVAA	mg/L	-0.0000139	0.0005	0.004	0.00299	0.00306	0.00404	0.0034 to 0.0046	74.8	70 to 130	2.31	20
BA06748	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06748	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0963	0.0973	0.102	0.085 to 0.115	96.3	70 to 130	1.03	20
BA06748	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA06748	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	0.948	20
BA06748	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0899	0.0922	0.0993	0.085 to 0.115	89.9	70 to 130	2.53	20
BA06748	Calcium, Total	mg/L	-0.0157	0.1518	5.00	338	338	5.29	4.25 to 5.75	100	70 to 130	0.00	20
BA06748	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.0927	0.0932	0.0980	0.085 to 0.115	92.7	70 to 130	0.538	20
BA06748	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0999	0.102	0.105	0.085 to 0.115	99.9	70 to 130	2.08	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 14:22
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BA06748

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06748	Chloride	mg/L	-0.00406	0.50	80.0	190	91.6	9.84	9 to 11	112	80 to 120	8.77	20
BA06748	Sulfate	mg/L	-0.164	0.50	2000	3350	1390	19.0	18 to 22	97.5	80 to 120	0.717	20
BA06748	Fluoride	mg/L	-0.00432	0.05	2.50	2.51	0.115	2.52	2.25 to 2.75	95.7	80 to 120	2.58	20
BA06748	Solids, Dissolved	mg/L	-1.00	25			2420	50.0	40 to 60			0.206	5

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF
Collected: 4/6/20 15:49
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06749

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:27		1.015	0.0507	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:31		20.3	302	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:27		1.015	0.0190	mg/L	0.01	0.02	J
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:20		1.015	0.00333	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 11:20		1.015	0.0131	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:20		1.015	0.00859	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:20		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2360	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:06	4/13/20 11:06		1	3.26	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:12	4/13/20 13:12		1	0.141	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:02	4/14/20 16:02		50	1270	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/6/20 15:46	4/6/20 15:46			2656.67	uS/cm			FA
pH	4/6/20 15:46	4/6/20 15:46			6.37	SU			FA
Temperature	4/6/20 15:46	4/6/20 15:46			20.29	C			FA
Turbidity	4/6/20 15:46	4/6/20 15:46			0.67	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 15:49
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-16

Laboratory ID Number: BA06749

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 15:49
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BA06749

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-16 DUP

Location Code: WMWGORLF
Collected: 4/6/20 15:49
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06750

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:30		1.015	0.0483	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:34		20.3	297	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:30		1.015	0.0190	mg/L	0.01	0.02	J
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:22		1.015	0.00313	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 11:22		1.015	0.0131	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:22		1.015	0.00863	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:22		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2380	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:08	4/13/20 11:08		1	3.26	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:13	4/13/20 13:13		1	0.148	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:03	4/14/20 16:03		50	1270	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/6/20 15:46	4/6/20 15:46			2656.67	uS/cm			FA
pH	4/6/20 15:46	4/6/20 15:46			6.37	SU			FA
Temperature	4/6/20 15:46	4/6/20 15:46			20.29	C			FA
Turbidity	4/6/20 15:46	4/6/20 15:46			0.67	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/6/20 15:49
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-16 DUP

Laboratory ID Number: BA06750

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/6/20 15:49
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-16 DUP

Laboratory ID Number: BA06750

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF
Collected: 4/7/20 08:49
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06751

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:33		1.015	0.0561	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:37		20.3	385	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:33		1.015	0.0547	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:25		1.015	0.00173	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 11:25		1.015	0.0149	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:25		1.015	0.279	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:25		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:10		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	3820	mg/L		208.3	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:09	4/13/20 11:09		1	2.55	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:14	4/13/20 13:14		1	0.137	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:04	4/14/20 16:04		100	2450	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/7/20 08:46	4/7/20 08:46			3700.94	uS/cm			FA
pH	4/7/20 08:46	4/7/20 08:46			5.92	SU			FA
Temperature	4/7/20 08:46	4/7/20 08:46			21.23	C			FA
Turbidity	4/7/20 08:46	4/7/20 08:46			1.59	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/7/20 08:49
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-17R

Laboratory ID Number: BA06751

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/7/20 08:49
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BA06751

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 4/7/20 09:56
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06752

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:36		1.015	0.0477	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:40		20.3	290	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:36		1.015	0.0372	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:28		1.015	0.00102	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 11:28		1.015	0.0127	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:28		1.015	0.00781	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:28		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2820	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:10	4/13/20 11:10		1	1.59	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:15	4/13/20 13:15		1	0.201	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:06	4/14/20 16:06		80	1760	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/7/20 09:53	4/7/20 09:53			2979.40	uS/cm			FA
pH	4/7/20 09:53	4/7/20 09:53			6.42	SU			FA
Temperature	4/7/20 09:53	4/7/20 09:53			19.34	C			FA
Turbidity	4/7/20 09:53	4/7/20 09:53			4.15	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/7/20 09:56
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-14

Laboratory ID Number: BA06752

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/7/20 09:56
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BA06752

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 4/7/20 11:04
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06753

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:39		1.015	0.0542	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:42		20.3	276	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:39		1.015	0.0711	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 11:30		1.015	0.0127	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:30		1.015	0.0697	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:30		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2760	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:11	4/13/20 11:11		1	1.40	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:16	4/13/20 13:16		1	0.303	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:07	4/14/20 16:07		80	1670	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/7/20 11:01	4/7/20 11:01			2774.97	uS/cm			FA
pH	4/7/20 11:01	4/7/20 11:01			6.10	SU			FA
Temperature	4/7/20 11:01	4/7/20 11:01			19.19	C			FA
Turbidity	4/7/20 11:01	4/7/20 11:01			4.67	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/7/20 11:04
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-15

Laboratory ID Number: BA06753

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/7/20 11:04
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BA06753

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 4/7/20 12:05
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06754

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:42		1.015	0.0577	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:45		20.3	222	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:42		1.015	0.0224	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 11:33		1.015	0.0133	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:33		1.015	0.00814	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:33		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2190	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:12	4/13/20 11:12		1	1.67	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:18	4/13/20 13:18		1	0.189	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:08	4/14/20 16:08		50	1400	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/7/20 12:02	4/7/20 12:02			2452.74	uS/cm			FA
pH	4/7/20 12:02	4/7/20 12:02			6.53	SU			FA
Temperature	4/7/20 12:02	4/7/20 12:02			19.68	C			FA
Turbidity	4/7/20 12:02	4/7/20 12:02			1.92	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/7/20 12:05
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-13

Laboratory ID Number: BA06754

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/7/20 12:05
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BA06754

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 4/8/20 08:20
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06755

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:45		1.015	0.0353	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:48		20.3	283	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:45		1.015	0.0633	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 11:35		1.015	0.00976	mg/L	0.002	0.01	J
* Beryllium, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:35		1.015	0.00387	mg/L	0.002	0.01	J
* Thallium, Total	4/9/20 13:30	4/10/20 11:35		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2670	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:14	4/13/20 11:14		1	1.43	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:19	4/13/20 13:19		1	0.305	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:09	4/14/20 16:09		80	1750	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 08:16	4/8/20 08:16			2774.54	uS/cm			FA
pH	4/8/20 08:16	4/8/20 08:16			6.57	SU			FA
Temperature	4/8/20 08:16	4/8/20 08:16			19.89	C			FA
Turbidity	4/8/20 08:16	4/8/20 08:16			1.42	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 08:20
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-18

Laboratory ID Number: BA06755

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 08:20
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BA06755

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 4/8/20 09:55
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06756

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:48		1.015	0.0373	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 12:51		20.3	288	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:48		1.015	0.0657	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 11:38		1.015	0.00979	mg/L	0.002	0.01	J
* Beryllium, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:38		1.015	0.0257	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:38		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2710	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:15	4/13/20 11:15		1	1.63	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:20	4/13/20 13:20		1	0.304	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:11	4/14/20 16:11		80	1890	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 09:52	4/8/20 09:52			2828.49	uS/cm			FA
pH	4/8/20 09:52	4/8/20 09:52			6.26	SU			FA
Temperature	4/8/20 09:52	4/8/20 09:52			19.60	C			FA
Turbidity	4/8/20 09:52	4/8/20 09:52			7.33	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 09:55
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-19

Laboratory ID Number: BA06756

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 09:55
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BA06756

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 4/8/20 10:47
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06757

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:51		1.015	0.104	mg/L	0.03	0.1	
* Calcium, Total	4/10/20 09:30	4/14/20 12:54		20.3	345	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:51		1.015	0.238	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:41		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:41		1.015	0.00129	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 11:41		1.015	0.0190	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:41		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 11:41		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:41		1.015	0.00312	mg/L	0.002	0.01	J
* Cobalt, Total	4/9/20 13:30	4/10/20 11:41		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 11:41		1.015	0.00686	mg/L	0.001	0.005	
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:41		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	2480	mg/L		156.2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:21	4/13/20 11:21		20	62.7	mg/L	10.00	20	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:21	4/13/20 13:21		1	0.107	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:12	4/14/20 16:12		50	1530	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 10:43	4/8/20 10:43			2852.92	uS/cm			FA
pH	4/8/20 10:43	4/8/20 10:43			6.81	SU			FA
Temperature	4/8/20 10:43	4/8/20 10:43			20.06	C			FA
Turbidity	4/8/20 10:43	4/8/20 10:43			0.96	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 10:47
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BA06757

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 10:47
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BA06757

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 4/8/20 12:00
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06758

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 11:54		1.015	0.209	mg/L	0.03	0.1	
* Calcium, Total	4/10/20 09:30	4/14/20 12:57		20.3	164	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 11:54		1.015	0.230	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 11:43		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 11:43		1.015	0.00130	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 11:43		1.015	0.0201	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 11:43		1.015	0.00114	mg/L	0.0006	0.003	J
* Cadmium, Total	4/9/20 13:30	4/10/20 11:43		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 11:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 11:43		1.015	0.0176	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 11:43		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 11:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 11:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 11:43		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/10/20 11:25	4/14/20 12:02		1	1120	mg/L		83.3	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:17	4/13/20 11:17		1	2.64	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:22	4/13/20 13:22		1	0.243	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/14/20 16:13	4/14/20 16:13		50	658	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 11:56	4/8/20 11:56			1454.61	uS/cm			FA
pH	4/8/20 11:56	4/8/20 11:56			6.36	SU			FA
Temperature	4/8/20 11:56	4/8/20 11:56			20.61	C			FA
Turbidity	4/8/20 11:56	4/8/20 11:56			9.15	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 12:00
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-10

Laboratory ID Number: BA06758

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Calcium, Total	mg/L	-0.0157	0.1518	5.00	168	168	5.29	4.25 to 5.75	80.0	70 to 130	0.00	20
BA06758	Arsenic, Total	mg/L	0.0000364	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	102	70 to 130	1.92	20
BA06758	Cadmium, Total	mg/L	0.00000805	0.0001474	0.10	0.0969	0.0988	0.102	0.085 to 0.115	96.9	70 to 130	1.94	20
BA06758	Beryllium, Total	mg/L	0.0000464	0.00088	0.10	0.0968	0.0987	0.0993	0.085 to 0.115	95.7	70 to 130	1.94	20
BA06758	Lithium, Total	mg/L	-0.00000675	0.0154	0.20	0.471	0.470	0.204	0.17 to 0.23	120	70 to 130	0.213	20
BA06758	Barium, Total	mg/L	0.00000494	0.0002	0.10	0.121	0.120	0.0980	0.085 to 0.115	101	70 to 130	0.830	20
BA06758	Lead, Total	mg/L	0.0000107	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06758	Boron, Total	mg/L	0.00229	0.0650254	1.00	1.28	1.27	1.04	0.85 to 1.15	107	70 to 130	0.784	20
BA06758	Antimony, Total	mg/L	0.000238	0.00066	0.10	0.0992	0.0988	0.0975	0.085 to 0.115	99.2	70 to 130	0.404	20
BA06758	Thallium, Total	mg/L	0.00000751	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA06758	Cobalt, Total	mg/L	-0.00000478	0.0001474	0.10	0.109	0.111	0.0980	0.085 to 0.115	91.4	70 to 130	1.82	20
BA06758	Chromium, Total	mg/L	0.0000767	0.00044	0.10	0.0974	0.0998	0.102	0.085 to 0.115	97.4	70 to 130	2.43	20
BA06758	Mercury, Total by CVAA	mg/L	-0.0000160	0.0005	0.004	0.00319	0.00357	0.00422	0.0034 to 0.0046	79.8	70 to 130	11.2	20
BA06758	Molybdenum, Total	mg/L	-0.00000038	0.0001474	0.10	0.0893	0.0896	0.102	0.085 to 0.115	89.3	70 to 130	0.335	20
BA06758	Selenium, Total	mg/L	0.0000750	0.00066	0.10	0.0904	0.0926	0.105	0.085 to 0.115	90.4	70 to 130	2.40	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 12:00
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BA06758

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06758	Chloride	mg/L	0.0481	0.50	10.0	12.8	2.59	9.81	9 to 11	102	80 to 120	1.91	20
BA06758	Solids, Dissolved	mg/L	-1.00	25			1110	50.0	40 to 60			0.448	5
BA06758	Sulfate	mg/L	-0.203	0.50	1000	1620	654	18.6	18 to 22	96.2	80 to 120	0.610	20
BA06758	Fluoride	mg/L	-0.00214	0.05	2.50	2.83	0.235	2.52	2.25 to 2.75	103	80 to 120	3.35	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 4/8/20 13:06
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06759

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 12:14		1.015	0.0499	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 13:13		20.3	242	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 12:14		1.015	0.0489	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 12:05		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 12:05		1.015	0.00232	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 12:05		1.015	0.0128	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 12:05		1.015	0.000788	mg/L	0.0006	0.003	J
* Cadmium, Total	4/9/20 13:30	4/10/20 12:05		1.015	0.00204	mg/L	0.0003	0.001	
* Chromium, Total	4/9/20 13:30	4/10/20 12:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 12:05		1.015	0.479	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 12:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 12:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 12:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 12:05		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/13/20 15:14	4/15/20 11:03		1	2940	mg/L		147.1	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:31	4/13/20 11:31		1	4.63	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:34	4/13/20 13:34		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/15/20 13:38	4/15/20 13:38		80	1900	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 13:03	4/8/20 13:03			2888.93	uS/cm			FA
pH	4/8/20 13:03	4/8/20 13:03			4.98	SU			FA
Temperature	4/8/20 13:03	4/8/20 13:03			20.57	C			FA
Turbidity	4/8/20 13:03	4/8/20 13:03			5.39	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 13:06
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BA06759

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Selenium, Total	mg/L	0.0000576	0.00066	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.966	20
BA06763	Calcium, Total	mg/L	-0.0133	0.1518	5.00	5.47	5.43	5.51	4.25 to 5.75	109	70 to 130	0.734	20
BA06763	Boron, Total	mg/L	0.00364	0.0650254	1.00	1.05	1.04	1.05	0.85 to 1.15	105	70 to 130	0.957	20
BA06763	Antimony, Total	mg/L	0.000237	0.00066	0.10	0.0978	0.0973	0.0977	0.085 to 0.115	97.8	70 to 130	0.513	20
BA06763	Cobalt, Total	mg/L	0.00000165	0.0001474	0.10	0.0981	0.0972	0.0972	0.085 to 0.115	98.1	70 to 130	0.922	20
BA06763	Molybdenum, Total	mg/L	-0.00000443	0.0001474	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.985	20
BA06763	Lead, Total	mg/L	0.00000972	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06763	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.107	0.103	0.104	0.085 to 0.115	107	70 to 130	3.81	20
BA06763	Chromium, Total	mg/L	0.000124	0.00044	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.00	20
BA06763	Mercury, Total by CVAA	mg/L	-0.0000162	0.0005	0.004	0.00338	0.00330	0.00394	0.0034 to 0.0046	84.5	70 to 130	2.40	20
BA06763	Lithium, Total	mg/L	0.000333	0.0154	0.20	0.207	0.206	0.209	0.17 to 0.23	104	70 to 130	0.484	20
BA06763	Thallium, Total	mg/L	0.00000479	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06763	Barium, Total	mg/L	0.00000511	0.0002	0.10	0.0993	0.1000	0.0991	0.085 to 0.115	99.3	70 to 130	0.702	20
BA06763	Beryllium, Total	mg/L	0.0000428	0.00088	0.10	0.0941	0.0966	0.0952	0.085 to 0.115	94.1	70 to 130	2.62	20
BA06763	Cadmium, Total	mg/L	0.00000819	0.0001474	0.10	0.101	0.101	0.102	0.085 to 0.115	101	70 to 130	0.00	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 13:06
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BA06759

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Chloride	mg/L	0.0123	0.50	10.0	10.0	0.162	9.81	9 to 11	100	80 to 120	0.00	20
BA06763	Sulfate	mg/L	-0.606	0.50	20.0	18.4	-0.587	18.5	18 to 22	92.0	80 to 120	0.00	20
BA06763	Fluoride	mg/L	-0.0194	0.05	2.50	2.54	-0.0221	2.53	2.25 to 2.75	102	80 to 120	0.00	20
BA06762	Solids, Dissolved	mg/L	0.0000	25			2420	50.0	40 to 60			0.616	5

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-6 DUP

Location Code: WMWGORLF
Collected: 4/8/20 13:06
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06760

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 12:17		1.015	0.0479	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 13:16		20.3	241	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 12:17		1.015	0.0488	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 12:07		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 12:07		1.015	0.00235	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 12:07		1.015	0.0129	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 12:07		1.015	0.000732	mg/L	0.0006	0.003	J
* Cadmium, Total	4/9/20 13:30	4/10/20 12:07		1.015	0.00193	mg/L	0.0003	0.001	
* Chromium, Total	4/9/20 13:30	4/10/20 12:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 12:07		1.015	0.496	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 12:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 12:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 12:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 12:07		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:46		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/13/20 15:14	4/15/20 11:03		1	2870	mg/L		147.1	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:32	4/13/20 11:32		1	4.55	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:35	4/13/20 13:35		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/15/20 13:40	4/15/20 13:40		80	1780	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 13:03	4/8/20 13:03			2888.93	uS/cm			FA
pH	4/8/20 13:03	4/8/20 13:03			4.98	SU			FA
Temperature	4/8/20 13:03	4/8/20 13:03			20.57	C			FA
Turbidity	4/8/20 13:03	4/8/20 13:03			5.39	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 13:06
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill - MW-6 DUP

Laboratory ID Number: BA06760

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Boron, Total	mg/L	0.00364	0.0650254	1.00	1.05	1.04	1.05	0.85 to 1.15	105	70 to 130	0.957	20
BA06763	Selenium, Total	mg/L	0.0000576	0.00066	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.966	20
BA06763	Antimony, Total	mg/L	0.000237	0.00066	0.10	0.0978	0.0973	0.0977	0.085 to 0.115	97.8	70 to 130	0.513	20
BA06763	Calcium, Total	mg/L	-0.0133	0.1518	5.00	5.47	5.43	5.51	4.25 to 5.75	109	70 to 130	0.734	20
BA06763	Cobalt, Total	mg/L	0.00000165	0.0001474	0.10	0.0981	0.0972	0.0972	0.085 to 0.115	98.1	70 to 130	0.922	20
BA06763	Molybdenum, Total	mg/L	-0.00000443	0.0001474	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.985	20
BA06763	Lead, Total	mg/L	0.00000972	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06763	Barium, Total	mg/L	0.00000511	0.0002	0.10	0.0993	0.1000	0.0991	0.085 to 0.115	99.3	70 to 130	0.702	20
BA06763	Beryllium, Total	mg/L	0.0000428	0.00088	0.10	0.0941	0.0966	0.0952	0.085 to 0.115	94.1	70 to 130	2.62	20
BA06763	Cadmium, Total	mg/L	0.00000819	0.0001474	0.10	0.101	0.101	0.102	0.085 to 0.115	101	70 to 130	0.00	20
BA06763	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.107	0.103	0.104	0.085 to 0.115	107	70 to 130	3.81	20
BA06763	Chromium, Total	mg/L	0.000124	0.00044	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.00	20
BA06763	Mercury, Total by CVAA	mg/L	-0.0000162	0.0005	0.004	0.00338	0.00330	0.00394	0.0034 to 0.0046	84.5	70 to 130	2.40	20
BA06763	Lithium, Total	mg/L	0.000333	0.0154	0.20	0.207	0.206	0.209	0.17 to 0.23	104	70 to 130	0.484	20
BA06763	Thallium, Total	mg/L	0.00000479	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 13:06
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-6 DUP

Laboratory ID Number: BA06760

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Chloride	mg/L	0.0123	0.50	10.0	10.0	0.162	9.81	9 to 11	100	80 to 120	0.00	20
BA06763	Fluoride	mg/L	-0.0194	0.05	2.50	2.54	-0.0221	2.53	2.25 to 2.75	102	80 to 120	0.00	20
BA06763	Sulfate	mg/L	-0.606	0.50	20.0	18.4	-0.587	18.5	18 to 22	92.0	80 to 120	0.00	20
BA06762	Solids, Dissolved	mg/L	0.0000	25			2420	50.0	40 to 60			0.616	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 4/8/20 14:03
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06761

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 12:20		1.015	0.0770	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 13:19		20.3	280	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 12:20		1.015	0.117	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 12:10		1.015	0.00136	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 12:10		1.015	0.0127	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 12:10		1.015	0.00394	mg/L	0.002	0.005	J
* Lead, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 12:10		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/13/20 15:14	4/15/20 11:03		1	2230	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:33	4/13/20 11:33		1	10.6	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:37	4/13/20 13:37		1	0.153	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/15/20 13:41	4/15/20 13:41		50	1270	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 14:00	4/8/20 14:00			2577.46	uS/cm			FA
pH	4/8/20 14:00	4/8/20 14:00			6.64	SU			FA
Temperature	4/8/20 14:00	4/8/20 14:00			19.67	C			FA
Turbidity	4/8/20 14:00	4/8/20 14:00			1.07	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 14:03
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BA06761

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Antimony, Total	mg/L	0.000237	0.00066	0.10	0.0978	0.0973	0.0977	0.085 to 0.115	97.8	70 to 130	0.513	20
BA06763	Boron, Total	mg/L	0.00364	0.0650254	1.00	1.05	1.04	1.05	0.85 to 1.15	105	70 to 130	0.957	20
BA06763	Calcium, Total	mg/L	-0.0133	0.1518	5.00	5.47	5.43	5.51	4.25 to 5.75	109	70 to 130	0.734	20
BA06763	Selenium, Total	mg/L	0.0000576	0.00066	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.966	20
BA06763	Barium, Total	mg/L	0.00000511	0.0002	0.10	0.0993	0.1000	0.0991	0.085 to 0.115	99.3	70 to 130	0.702	20
BA06763	Beryllium, Total	mg/L	0.0000428	0.00088	0.10	0.0941	0.0966	0.0952	0.085 to 0.115	94.1	70 to 130	2.62	20
BA06763	Cadmium, Total	mg/L	0.00000819	0.0001474	0.10	0.101	0.101	0.102	0.085 to 0.115	101	70 to 130	0.00	20
BA06763	Cobalt, Total	mg/L	0.00000165	0.0001474	0.10	0.0981	0.0972	0.0972	0.085 to 0.115	98.1	70 to 130	0.922	20
BA06763	Molybdenum, Total	mg/L	-0.00000443	0.0001474	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.985	20
BA06763	Lead, Total	mg/L	0.00000972	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06763	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.107	0.103	0.104	0.085 to 0.115	107	70 to 130	3.81	20
BA06763	Chromium, Total	mg/L	0.000124	0.00044	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.00	20
BA06763	Mercury, Total by CVAA	mg/L	-0.0000162	0.0005	0.004	0.00338	0.00330	0.00394	0.0034 to 0.0046	84.5	70 to 130	2.40	20
BA06763	Lithium, Total	mg/L	0.000333	0.0154	0.20	0.207	0.206	0.209	0.17 to 0.23	104	70 to 130	0.484	20
BA06763	Thallium, Total	mg/L	0.00000479	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 14:03
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BA06761

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Chloride	mg/L	0.0123	0.50	10.0	10.0	0.162	9.81	9 to 11	100	80 to 120	0.00	20
BA06762	Solids, Dissolved	mg/L	0.0000	25			2420	50.0	40 to 60			0.616	5
BA06763	Fluoride	mg/L	-0.0194	0.05	2.50	2.54	-0.0221	2.53	2.25 to 2.75	102	80 to 120	0.00	20
BA06763	Sulfate	mg/L	-0.606	0.50	20.0	18.4	-0.587	18.5	18 to 22	92.0	80 to 120	0.00	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 4/8/20 14:55
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06762

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 12:23		1.015	0.0683	mg/L	0.03	0.1	J
* Calcium, Total	4/10/20 09:30	4/14/20 13:22		20.3	281	mg/L	2.03	10.15	
* Lithium, Total	4/10/20 09:30	4/14/20 12:23		1.015	0.149	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 12:13		1.015	0.00102	mg/L	0.001	0.005	J
* Barium, Total	4/9/20 13:30	4/10/20 12:13		1.015	0.0137	mg/L	0.002	0.01	
* Beryllium, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 12:13		1.015	0.00762	mg/L	0.002	0.005	
* Lead, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 12:13		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/13/20 15:14	4/15/20 11:03		1	2450	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:39	4/13/20 11:39		2	24.9	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:38	4/13/20 13:38		1	0.192	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/15/20 13:42	4/15/20 13:42		50	1380	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/8/20 14:51	4/8/20 14:51			2707.34	uS/cm			FA
pH	4/8/20 14:51	4/8/20 14:51			6.70	SU			FA
Temperature	4/8/20 14:51	4/8/20 14:51			21.05	C			FA
Turbidity	4/8/20 14:51	4/8/20 14:51			2.72	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 4/8/20 14:55
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BA06762

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Antimony, Total	mg/L	0.000237	0.00066	0.10	0.0978	0.0973	0.0977	0.085 to 0.115	97.8	70 to 130	0.513	20
BA06763	Selenium, Total	mg/L	0.0000576	0.00066	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.966	20
BA06763	Boron, Total	mg/L	0.00364	0.0650254	1.00	1.05	1.04	1.05	0.85 to 1.15	105	70 to 130	0.957	20
BA06763	Calcium, Total	mg/L	-0.0133	0.1518	5.00	5.47	5.43	5.51	4.25 to 5.75	109	70 to 130	0.734	20
BA06763	Barium, Total	mg/L	0.00000511	0.0002	0.10	0.0993	0.1000	0.0991	0.085 to 0.115	99.3	70 to 130	0.702	20
BA06763	Beryllium, Total	mg/L	0.0000428	0.00088	0.10	0.0941	0.0966	0.0952	0.085 to 0.115	94.1	70 to 130	2.62	20
BA06763	Cadmium, Total	mg/L	0.00000819	0.0001474	0.10	0.101	0.101	0.102	0.085 to 0.115	101	70 to 130	0.00	20
BA06763	Cobalt, Total	mg/L	0.00000165	0.0001474	0.10	0.0981	0.0972	0.0972	0.085 to 0.115	98.1	70 to 130	0.922	20
BA06763	Molybdenum, Total	mg/L	-0.00000443	0.0001474	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.985	20
BA06763	Lead, Total	mg/L	0.00000972	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20
BA06763	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.107	0.103	0.104	0.085 to 0.115	107	70 to 130	3.81	20
BA06763	Chromium, Total	mg/L	0.000124	0.00044	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.00	20
BA06763	Mercury, Total by CVAA	mg/L	-0.0000162	0.0005	0.004	0.00338	0.00330	0.00394	0.0034 to 0.0046	84.5	70 to 130	2.40	20
BA06763	Lithium, Total	mg/L	0.000333	0.0154	0.20	0.207	0.206	0.209	0.17 to 0.23	104	70 to 130	0.484	20
BA06763	Thallium, Total	mg/L	0.00000479	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 4/8/20 14:55
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BA06762

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Chloride	mg/L	0.0123	0.50	10.0	10.0	0.162	9.81	9 to 11	100	80 to 120	0.00	20
BA06763	Sulfate	mg/L	-0.606	0.50	20.0	18.4	-0.587	18.5	18 to 22	92.0	80 to 120	0.00	20
BA06763	Fluoride	mg/L	-0.0194	0.05	2.50	2.54	-0.0221	2.53	2.25 to 2.75	102	80 to 120	0.00	20
BA06762	Solids, Dissolved	mg/L	0.0000	25			2420	50.0	40 to 60			0.616	5

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Equipment Blank

Location Code: WMWGORLFEB
Collected: 4/8/20 15:30
Customer ID:
Submittal Date: 4/9/20 09:22

Laboratory ID Number: BA06763

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	4/10/20 09:30	4/14/20 12:26		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/10/20 09:30	4/14/20 12:26		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/10/20 09:30	4/14/20 12:26		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/9/20 13:30	4/10/20 12:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/13/20 11:20	4/14/20 11:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/13/20 15:14	4/15/20 11:03		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/13/20 11:35	4/13/20 11:35		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/13/20 13:39	4/13/20 13:39		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/15/20 13:43	4/15/20 13:43		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFEB
Sample Date: 4/8/20 15:30
Customer ID:
Delivery Date: 4/9/20 09:22

Description:Gorgas Landfill Equipment Blank

Laboratory ID Number: BA06763

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Calcium, Total	mg/L	-0.0133	0.1518	5.00	5.47	5.43	5.51	4.25 to 5.75	109	70 to 130	0.734	20
BA06763	Antimony, Total	mg/L	0.000237	0.00066	0.10	0.0978	0.0973	0.0977	0.085 to 0.115	97.8	70 to 130	0.513	20
BA06763	Selenium, Total	mg/L	0.0000576	0.00066	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.966	20
BA06763	Barium, Total	mg/L	0.00000511	0.0002	0.10	0.0993	0.1000	0.0991	0.085 to 0.115	99.3	70 to 130	0.702	20
BA06763	Beryllium, Total	mg/L	0.0000428	0.00088	0.10	0.0941	0.0966	0.0952	0.085 to 0.115	94.1	70 to 130	2.62	20
BA06763	Cadmium, Total	mg/L	0.00000819	0.0001474	0.10	0.101	0.101	0.102	0.085 to 0.115	101	70 to 130	0.00	20
BA06763	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.107	0.103	0.104	0.085 to 0.115	107	70 to 130	3.81	20
BA06763	Chromium, Total	mg/L	0.000124	0.00044	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.00	20
BA06763	Mercury, Total by CVAA	mg/L	-0.0000162	0.0005	0.004	0.00338	0.00330	0.00394	0.0034 to 0.0046	84.5	70 to 130	2.40	20
BA06763	Lithium, Total	mg/L	0.000333	0.0154	0.20	0.207	0.206	0.209	0.17 to 0.23	104	70 to 130	0.484	20
BA06763	Thallium, Total	mg/L	0.00000479	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06763	Boron, Total	mg/L	0.00364	0.0650254	1.00	1.05	1.04	1.05	0.85 to 1.15	105	70 to 130	0.957	20
BA06763	Cobalt, Total	mg/L	0.00000165	0.0001474	0.10	0.0981	0.0972	0.0972	0.085 to 0.115	98.1	70 to 130	0.922	20
BA06763	Molybdenum, Total	mg/L	-0.00000443	0.0001474	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.985	20
BA06763	Lead, Total	mg/L	0.00000972	0.0001474	0.10	0.103	0.101	0.102	0.085 to 0.115	103	70 to 130	1.96	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFEB
Sample Date: 4/8/20 15:30
Customer ID:
Delivery Date: 4/9/20 09:22

Description: Gorgas Landfill Equipment Blank

Laboratory ID Number: BA06763

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06763	Chloride	mg/L	0.0123	0.50	10.0	10.0	0.162	9.81	9 to 11	100	80 to 120	0.00	20
BA06763	Fluoride	mg/L	-0.0194	0.05	2.50	2.54	-0.0221	2.53	2.25 to 2.75	102	80 to 120	0.00	20
BA06762	Solids, Dissolved	mg/L	0.0000	25			2420	50.0	40 to 60			0.616	5
BA06763	Sulfate	mg/L	-0.606	0.50	20.0	18.4	-0.587	18.5	18 to 22	92.0	80 to 120	0.00	20

Comments:

Reported: 5/1/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Alabama Power

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab
☑ Lab Complete

Lab ETA: 04/07/2020 15:10

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Landfill

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments:

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	04/06/2020	11:32	4	Groundwater		BA06596
MW-1	04/06/2020	12:35	4	Groundwater		BA06597
MW-3	04/06/2020	13:40	4	Groundwater		BA06598
MW-4	04/06/2020	14:58	4	Groundwater		BA06599
MW-5	04/07/2020	11:55	4	Groundwater		BA06600
FB-2	04/07/2020	12:30	4	Field Blank		BA06601

Relinquished By	Received By	Date/Time
		04/07/2020 14:19

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	1.3 degrees C
Sample Event	1272	Thermometer ID	5408-27568-2-2
		pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab
☑ Lab Complete

Lab ETA 04/09/2020 09:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Gorgas Landfill

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-12V	04/06/2020	11:45	4	Groundwater		BA06745
FB-1	04/06/2020	12:12	4	Field Blank		BA06746
MW-12	04/06/2020	12:52	4	Groundwater		BA06747
MW-11	04/06/2020	14:22	4	Groundwater		BA06748
MW-16	04/06/2020	15:49	4	Groundwater		BA06749
MW-16 dup	04/06/2020	15:49	4	Sample Duplicate		BA06750
MW-17R	04/07/2020	08:49	4	Groundwater		BA06751
MW-14	04/07/2020	09:56	4	Groundwater		BA06752
MW-15	04/07/2020	11:04	4	Groundwater		BA06753
MW-13	04/07/2020	12:05	4	Groundwater		BA06754
MW-18	04/08/2020	08:20	4	Groundwater		BA06755
MW-19	04/08/2020	09:55	4	Groundwater		BA06756
MW-20	04/08/2020	10:47	4	Groundwater		BA06757
MW-10	04/08/2020	12:00	4	Groundwater		BA06758
MW-6	04/08/2020	13:06	4	Groundwater		BA06759
MW-6 dup	04/08/2020	13:06	4	Sample Duplicate		BA06760
MW-7	04/08/2020	14:03	4	Groundwater		BA06761
MW-8	04/08/2020	14:55	4	Groundwater		BA06762
EB-1	04/08/2020	15:30	4	Equipment Blank		BA06763

Relinquished By	Received By	Date/Time
		04/09/2020 08:18

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1272

All metals and radiological bottles have pH < 2 ☑

Cooler Temp	0.2 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA: 04/07/2020 15:10

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Landfill

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected @ MW-2

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	04/06/2020	11:32	3	Groundwater		BA06602
MW-1	04/06/2020	12:35	1	Groundwater		BA06603
MW-3	04/06/2020	13:40	1	Groundwater		BA06604
MW-4	04/06/2020	14:58	1	Groundwater		BA06605
MW-5	04/07/2020	11:55	1	Groundwater		BA06606
FB-2	04/07/2020	12:30	1	Field Blank		BA06607

Relinquished By	Received By	Date/Time
		04/07/2020 14:19

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	N/A
Sample Event	1272	Thermometer ID	N/A
		pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab
✔ Lab Complete

Lab ETA 04/09/2020 09:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Gorgas Landfill

Bottles												
1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-14

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-12V	04/06/2020	11:45	1	Groundwater		BA06764
FB-1	04/06/2020	12:12	1	Field Blank		BA06765
MW-12	04/06/2020	12:52	1	Groundwater		BA06766
MW-11	04/06/2020	14:22	1	Groundwater		BA06767
MW-16	04/06/2020	15:49	1	Groundwater		BA06768
MW-16 dup	04/06/2020	15:49	1	Sample Duplicate		BA06769
MW-17R	04/07/2020	08:49	1	Groundwater		BA06770
MW-14	04/07/2020	09:56	3	Groundwater		BA06771
MW-15	04/07/2020	11:04	1	Groundwater		BA06772
MW-13	04/07/2020	12:05	1	Groundwater		BA06773
MW-18	04/08/2020	08:20	1	Groundwater		BA06774
MW-19	04/08/2020	09:55	1	Groundwater		BA06775
MW-20	04/08/2020	10:47	1	Groundwater		BA06776
MW-10	04/08/2020	12:00	1	Groundwater		BA06777
MW-6	04/08/2020	13:06	1	Groundwater		BA06778
MW-6 dup	04/08/2020	13:06	1	Sample Duplicate		BA06779
MW-7	04/08/2020	14:03	1	Groundwater		BA06780
MW-8	04/08/2020	14:55	1	Groundwater		BA06781
EB-1	04/08/2020	15:30	1	Equipment Blank		BA06782

Relinquished By	Received By	Date/Time
Dallas Gentry	Laura McGill	04/09/2020 08:18

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2	✔
Turbidity ID	7081-38476-1-1	Cooler Temp	N/A
Sample Event	1272	Thermometer ID	N/A
		pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-186670-1
Laboratory Sample Delivery Group: Gorgas Landfill 1272
Client Project/Site: CCR Plant Gorgas
Revision: 1

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff

Cheyenne Whitmire

Authorized for release by:
5/31/2020 4:08:31 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-186670-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-186670-1

RAD

Method 9315: Radium-226 Prep Batch 160-467926. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06602 MW-2 (400-186670-1), BA06602 MW-2 (400-186670-1[MS]), BA06602 MW-2 (400-186670-1[MSD]), BA06603 MW-1 (400-186670-2), BA06604 MW-3 (400-186670-3), BA06605 MW-4 (400-186670-4), BA06606 MW-5 (400-186670-5), BA06607 FB-2 (400-186670-6), BA06764 MW-12V (400-186670-7), BA06765 FB-1 (400-186670-8), BA06766 MW-12 (400-186670-9), BA06767 MW-11 (400-186670-10), BA06768 MW-16 (400-186670-11), BA06769 MW-16 DUP (400-186670-12), BA06770 MW-17R (400-186670-13), (LCS 160-467926/1-A) and (MB 160-467926/23-A)

Method 9315: Ra-226 Prep Batch 160-467921. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06771 MW-14 (400-186670-14), BA06771 MW-14 (400-186670-14[MS]), BA06771 MW-14 (400-186670-14[MSD]), BA06772 MW-15 (400-186670-15), BA06773 MW-13 (400-186670-16), BA06774 MW-18 (400-186670-17), BA06775 MW-19 (400-186670-18), BA06776 MW-20 (400-186670-19), BA06777 MW-10 (400-186670-20), BA06778 MW-6 (400-186670-21), BA06779 MW-6 DUP (400-186670-22), BA06780 MW-7 (400-186670-23), (LCS 160-467921/1-A) and (MB 160-467921/23-A)

Method 9315: Ra-226 Prep Batch 160-468173. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06781 MW-8 (400-186670-24), BA06782 EB-1 (400-186670-25), (LCS 160-468173/1-A), (LCSD 160-468173/2-A), (MB 160-468173/23-B), (240-129038-M-2-A), (240-129038-B-2-C MS) and (240-129038-B-2-D MSD)

Method 9320: Ra-228 Prep Batch 160-467923. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06771 MW-14 (400-186670-14), BA06771 MW-14 (400-186670-14[MS]), BA06771 MW-14 (400-186670-14[MSD]), BA06772 MW-15 (400-186670-15), BA06773 MW-13 (400-186670-16), BA06774 MW-18 (400-186670-17), BA06775 MW-19 (400-186670-18), BA06776 MW-20 (400-186670-19), BA06777 MW-10 (400-186670-20), BA06778 MW-6 (400-186670-21), BA06779 MW-6 DUP (400-186670-22), BA06780 MW-7 (400-186670-23), (LCS 160-467923/1-A) and (MB 160-467923/23-A)

Method 9320: Ra-228 Prep Batch 160-467931. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06602 MW-2 (400-186670-1), BA06602 MW-2 (400-186670-1[MS]), BA06602 MW-2 (400-186670-1[MSD]), BA06603 MW-1 (400-186670-2), BA06604 MW-3 (400-186670-3), BA06605 MW-4 (400-186670-4), BA06606 MW-5 (400-186670-5), BA06607 FB-2 (400-186670-6), BA06764 MW-12V (400-186670-7), BA06765 FB-1 (400-186670-8), BA06766 MW-12 (400-186670-9), BA06767 MW-11 (400-186670-10), BA06768 MW-16 (400-186670-11), BA06769 MW-16 DUP (400-186670-12), BA06770 MW-17R (400-186670-13), (LCS 160-467931/1-A) and (MB 160-467931/23-A)

Method 9320: Radium-228 Prep Batch 160-469667. The following samples did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interferences: BA06781 MW-8 (400-186670-24) and BA06782 EB-1 (400-186670-25). See prep NCM 160-195324. The data have been reported with this narrative.

Method 9320: Radium-228 Prep Batch 160-469667. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06781 MW-8 (400-186670-24), BA06782 EB-1 (400-186670-25), (LCS 160-469667/1-A), (MB 160-469667/20-A), (240-129038-N-2-A), (240-129038-A-2-A MS) and (240-129038-J-2-A MSD)

Method PrecSep_0: Radium 228 Prep Batch 160-467923. The following samples were prepared at a reduced aliquot due to limited volume: BA06771 MW-14 (400-186670-14), BA06771 MW-14 (400-186670-14[MS]), BA06771 MW-14 (400-186670-14[MSD]), BA06772 MW-15 (400-186670-15), BA06773 MW-13 (400-186670-16), BA06774 MW-18 (400-186670-17), BA06775 MW-19 (400-186670-18),

Job ID: 400-186670-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

BA06776 MW-20 (400-186670-19), BA06777 MW-10 (400-186670-20), BA06778 MW-6 (400-186670-21), BA06779 MW-6 DUP (400-186670-22) and BA06780 MW-7 (400-186670-23).

Method PrecSep_0: Radium 228 Prep Batch 160-467931. The following samples were prepared at a reduced aliquot due to limited volume: BA06602 MW-2 (400-186670-1), BA06602 MW-2 (400-186670-1[MS]), BA06602 MW-2 (400-186670-1[MSD]), BA06603 MW-1 (400-186670-2), BA06604 MW-3 (400-186670-3), BA06605 MW-4 (400-186670-4), BA06606 MW-5 (400-186670-5), BA06607 FB-2 (400-186670-6), BA06764 MW-12V (400-186670-7), BA06765 FB-1 (400-186670-8), BA06766 MW-12 (400-186670-9), BA06767 MW-11 (400-186670-10), BA06768 MW-16 (400-186670-11), BA06769 MW-16 DUP (400-186670-12) and BA06770 MW-17R (400-186670-13).

Method PrecSep_0: Radium-228 Prep Batch 160-468176. Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-468176. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were created to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-469667. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA06781 MW-8 (400-186670-24) and BA06782 EB-1 (400-186670-25).

Method PrecSep_0: Radium 228 Prep Batch 160-469667. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA06781 MW-8 (400-186670-24) and BA06782 EB-1 (400-186670-25). Method PrecSep-21: Radium 226 Prep Batch 160-467921. The following samples were prepared at a reduced aliquot due to limited volume: BA06771 MW-14 (400-186670-14), BA06771 MW-14 (400-186670-14[MS]), BA06771 MW-14 (400-186670-14[MSD]), BA06772 MW-15 (400-186670-15), BA06773 MW-13 (400-186670-16), BA06774 MW-18 (400-186670-17), BA06775 MW-19 (400-186670-18), BA06776 MW-20 (400-186670-19), BA06777 MW-10 (400-186670-20), BA06778 MW-6 (400-186670-21), BA06779 MW-6 DUP (400-186670-22) and BA06780 MW-7 (400-186670-23).

Method PrecSep-21: Radium 226 Prep Batch 160-467926. The following samples were prepared at a reduced aliquot due to limited volume: BA06602 MW-2 (400-186670-1), BA06602 MW-2 (400-186670-1[MS]), BA06602 MW-2 (400-186670-1[MSD]), BA06603 MW-1 (400-186670-2), BA06604 MW-3 (400-186670-3), BA06605 MW-4 (400-186670-4), BA06606 MW-5 (400-186670-5), BA06607 FB-2 (400-186670-6), BA06764 MW-12V (400-186670-7), BA06765 FB-1 (400-186670-8), BA06766 MW-12 (400-186670-9), BA06767 MW-11 (400-186670-10), BA06768 MW-16 (400-186670-11), BA06769 MW-16 DUP (400-186670-12) and BA06770 MW-17R (400-186670-13).

Method PrecSep-21: Radium-226 Prep Batch 160-468173. Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-468173. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were created to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-467921. The following samples were prepared at a reduced aliquot due to limited volume: BA06771 MW-14 (400-186670-14), BA06771 MW-14 (400-186670-14[MS]), BA06771 MW-14 (400-186670-14[MSD]), BA06772 MW-15 (400-186670-15), BA06773 MW-13 (400-186670-16), BA06774 MW-18 (400-186670-17), BA06775 MW-19 (400-186670-18), BA06776 MW-20 (400-186670-19), BA06777 MW-10 (400-186670-20), BA06778 MW-6 (400-186670-21), BA06779 MW-6 DUP (400-186670-22) and BA06780 MW-7 (400-186670-23).

Job ID: 400-186670-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-186670-1	BA06602 MW-2	Water	04/06/20 11:32	04/13/20 14:00	
400-186670-2	BA06603 MW-1	Water	04/06/20 12:35	04/13/20 14:00	
400-186670-3	BA06604 MW-3	Water	04/06/20 13:40	04/13/20 14:00	
400-186670-4	BA06605 MW-4	Water	04/06/20 14:58	04/13/20 14:00	
400-186670-5	BA06606 MW-5	Water	04/07/20 11:55	04/13/20 14:00	
400-186670-6	BA06607 FB-2	Water	04/07/20 12:30	04/13/20 14:00	
400-186670-7	BA06764 MW-12V	Water	04/06/20 11:45	04/13/20 14:00	
400-186670-8	BA06765 FB-1	Water	04/06/20 12:12	04/13/20 14:00	
400-186670-9	BA06766 MW-12	Water	04/06/20 12:52	04/13/20 14:00	
400-186670-10	BA06767 MW-11	Water	04/06/20 14:22	04/13/20 14:00	
400-186670-11	BA06768 MW-16	Water	04/06/20 15:49	04/13/20 14:00	
400-186670-12	BA06769 MW-16 DUP	Water	04/06/20 15:49	04/13/20 14:00	
400-186670-13	BA06770 MW-17R	Water	04/07/20 08:49	04/13/20 14:00	
400-186670-14	BA06771 MW-14	Water	04/07/20 09:56	04/13/20 14:00	
400-186670-15	BA06772 MW-15	Water	04/07/20 11:04	04/13/20 14:00	
400-186670-16	BA06773 MW-13	Water	04/07/20 12:05	04/13/20 14:00	
400-186670-17	BA06774 MW-18	Water	04/08/20 08:20	04/13/20 14:00	
400-186670-18	BA06775 MW-19	Water	04/08/20 09:55	04/13/20 14:00	
400-186670-19	BA06776 MW-20	Water	04/08/20 10:47	04/13/20 14:00	
400-186670-20	BA06777 MW-10	Water	04/08/20 12:00	04/13/20 14:00	
400-186670-21	BA06778 MW-6	Water	04/08/20 13:06	04/13/20 14:00	
400-186670-22	BA06779 MW-6 DUP	Water	04/08/20 13:06	04/13/20 14:00	
400-186670-23	BA06780 MW-7	Water	04/08/20 14:03	04/13/20 14:00	
400-186670-24	BA06781 MW-8	Water	04/08/20 14:55	04/13/20 14:00	
400-186670-25	BA06782 EB-1	Water	04/08/20 15:30	04/13/20 14:00	

Client Sample ID: BA06602 MW-2

Date Collected: 04/06/20 11:32
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.175		0.100	0.102	1.00	0.119	pCi/L	04/16/20 08:31	05/08/20 05:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*04/16/20 08:31*	*05/08/20 05:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0370	U	0.322	0.322	1.00	0.574	pCi/L	04/16/20 09:42	04/30/20 12:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:39*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.212	U	0.337	0.338	5.00	0.574	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06603 MW-1

Date Collected: 04/06/20 12:35
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0698	U	0.0676	0.0679	1.00	0.101	pCi/L	04/16/20 08:31	05/08/20 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/16/20 08:31*	*05/08/20 05:15*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.239	U	0.308	0.309	1.00	0.512	pCi/L	04/16/20 09:42	04/30/20 12:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:41*	*1*
Y Carrier	*87.9*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.309	U	0.315	0.316	5.00	0.512	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06604 MW-3

Date Collected: 04/06/20 13:40
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.187		0.101	0.102	1.00	0.114	pCi/L	04/16/20 08:31	05/08/20 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*04/16/20 08:31*	*05/08/20 05:15*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.382	U	0.387	0.388	1.00	0.629	pCi/L	04/16/20 09:42	04/30/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*
Y Carrier	*81.5*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.569	U	0.400	0.401	5.00	0.629	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06605 MW-4

Date Collected: 04/06/20 14:58
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0842	U	0.0747	0.0751	1.00	0.110	pCi/L	04/16/20 08:31	05/08/20 05:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/16/20 08:31*	*05/08/20 05:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.374	U	0.315	0.317	1.00	0.501	pCi/L	04/16/20 09:42	04/30/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*
Y Carrier	*84.1*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.459	U	0.324	0.326	5.00	0.501	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06606 MW-5

Date Collected: 04/07/20 11:55
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.149**		0.0969	0.0978	1.00	0.127	pCi/L	04/16/20 08:31	05/08/20 05:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/16/20 08:31*	*05/08/20 05:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.331	U	0.318	0.319	1.00	0.512	pCi/L	04/16/20 09:42	04/30/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.480	U	0.332	0.334	5.00	0.512	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06607 FB-2

Date Collected: 04/07/20 12:30
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0385	U	0.0672	0.0673	1.00	0.119	pCi/L	04/16/20 08:31	05/08/20 05:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/16/20 08:31*	*05/08/20 05:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.390	U	0.317	0.319	1.00	0.501	pCi/L	04/16/20 09:42	04/30/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*
Y Carrier	*81.9*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.429	U	0.324	0.326	5.00	0.501	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06764 MW-12V

Date Collected: 04/06/20 11:45
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0443	U	0.0620	0.0621	1.00	0.105	pCi/L	04/16/20 08:31	05/08/20 06:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*04/16/20 08:31*	*05/08/20 06:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0719	U	0.305	0.305	1.00	0.536	pCi/L	04/16/20 09:42	04/30/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*
Y Carrier	*88.6*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.116	U	0.311	0.311	5.00	0.536	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06765 FB-1

Date Collected: 04/06/20 12:12
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0203	U	0.0415	0.0415	1.00	0.111	pCi/L	04/16/20 08:31	05/08/20 06:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*40 - 110*	*04/16/20 08:31*	*05/08/20 06:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00627	U	0.287	0.287	1.00	0.518	pCi/L	04/16/20 09:42	04/30/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0140	U	0.290	0.290	5.00	0.518	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06766 MW-12

Date Collected: 04/06/20 12:52
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.150		0.0868	0.0878	1.00	0.0983	pCi/L	04/16/20 08:31	05/08/20 06:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*04/16/20 08:31*	*05/08/20 06:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.07		0.379	0.392	1.00	0.503	pCi/L	04/16/20 09:42	04/30/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*
Y Carrier	*82.2*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.22		0.389	0.402	5.00	0.503	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06767 MW-11

Date Collected: 04/06/20 14:22
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.255**		0.137	0.139	1.00	0.179	pCi/L	04/16/20 08:31	05/08/20 06:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*40 - 110*	*04/16/20 08:31*	*05/08/20 06:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.423	U	0.408	0.410	1.00	0.662	pCi/L	04/16/20 09:42	04/30/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.678**		0.430	0.433	5.00	0.662	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06768 MW-16

Date Collected: 04/06/20 15:49
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0420	U	0.0597	0.0598	1.00	0.101	pCi/L	04/16/20 08:31	05/08/20 07:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*04/16/20 08:31*	*05/08/20 07:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.349	U	0.305	0.307	1.00	0.489	pCi/L	04/16/20 09:42	04/30/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*
Y Carrier	*92.0*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.391	U	0.311	0.313	5.00	0.489	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06769 MW-16 DUP

Date Collected: 04/06/20 15:49
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.139		0.0850	0.0859	1.00	0.0980	pCi/L	04/16/20 08:31	05/08/20 07:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*04/16/20 08:31*	*05/08/20 07:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.333	U	0.315	0.317	1.00	0.507	pCi/L	04/16/20 09:42	04/30/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*
Y Carrier	*84.1*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.472	U	0.326	0.328	5.00	0.507	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06770 MW-17R

Date Collected: 04/07/20 08:49
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.166		0.0922	0.0935	1.00	0.105	pCi/L	04/16/20 08:31	05/08/20 07:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*04/16/20 08:31*	*05/08/20 07:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.766		0.348	0.356	1.00	0.495	pCi/L	04/16/20 09:42	04/30/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*
Y Carrier	*87.9*		*40 - 110*	*04/16/20 09:42*	*04/30/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.933		0.360	0.368	5.00	0.495	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06771 MW-14

Date Collected: 04/07/20 09:56
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0352	U	0.0712	0.0713	1.00	0.128	pCi/L	04/16/20 06:51	05/08/20 05:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.241	U	0.323	0.324	1.00	0.538	pCi/L	04/16/20 08:20	04/29/20 17:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*
Y Carrier	*88.6*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.276	U	0.331	0.332	5.00	0.538	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06772 MW-15

Date Collected: 04/07/20 11:04
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0992	U	0.0800	0.0805	1.00	0.116	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.290	U	0.304	0.305	1.00	0.495	pCi/L	04/16/20 08:20	04/29/20 17:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*
Y Carrier	*86.7*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.389	U	0.314	0.315	5.00	0.495	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06773 MW-13

Date Collected: 04/07/20 12:05
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-16

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0588	U	0.0684	0.0687	1.00	0.110	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.110	U	0.317	0.317	1.00	0.550	pCi/L	04/16/20 08:20	04/29/20 17:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*
Y Carrier	*86.4*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.169	U	0.324	0.324	5.00	0.550	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06774 MW-18

Date Collected: 04/08/20 08:20
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-17

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0320	U	0.0534	0.0535	1.00	0.0944	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.424	U	0.327	0.329	1.00	0.516	pCi/L	04/16/20 08:20	04/29/20 17:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*
Y Carrier	*87.1*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.456	U	0.331	0.333	5.00	0.516	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06775 MW-19

Date Collected: 04/08/20 09:55
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-18

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.198**		0.118	0.119	1.00	0.161	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.303	U	0.328	0.330	1.00	0.537	pCi/L	04/16/20 08:20	04/29/20 17:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*
Y Carrier	*86.7*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.502	U	0.349	0.351	5.00	0.537	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06776 MW-20

Date Collected: 04/08/20 10:47
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-19

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.226**		0.0995	0.102	1.00	0.107	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.474	U	0.325	0.328	1.00	0.502	pCi/L	04/16/20 08:20	04/29/20 17:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*
Y Carrier	*87.5*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.700**		0.340	0.343	5.00	0.502	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06777 MW-10

Date Collected: 04/08/20 12:00
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-20

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.120	U	0.103	0.103	1.00	0.154	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.8*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0850	U	0.362	0.362	1.00	0.635	pCi/L	04/16/20 08:20	04/29/20 17:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.8*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*
Y Carrier	*87.1*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.205	U	0.376	0.376	5.00	0.635	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06778 MW-6

Date Collected: 04/08/20 13:06
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-21

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111	U	0.0925	0.0930	1.00	0.138	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0676	U	0.325	0.326	1.00	0.569	pCi/L	04/16/20 08:20	04/29/20 17:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*
Y Carrier	*89.3*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.179	U	0.338	0.339	5.00	0.569	pCi/L		05/11/20 07:45	1

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Client Sample ID: BA06779 MW-6 DUP

Date Collected: 04/08/20 13:06
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-22

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.137**		0.0840	0.0849	1.00	0.110	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.427	U	0.283	0.286	1.00	0.432	pCi/L	04/16/20 08:20	04/29/20 17:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*
Y Carrier	*89.0*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.564**		0.295	0.298	5.00	0.432	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06780 MW-7

Date Collected: 04/08/20 14:03
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-23

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0586	U	0.0939	0.0940	1.00	0.162	pCi/L	04/16/20 06:51	05/08/20 05:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*04/16/20 06:51*	*05/08/20 05:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.178	U	0.346	0.347	1.00	0.591	pCi/L	04/16/20 08:20	04/29/20 17:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*
Y Carrier	*86.4*		*40 - 110*	*04/16/20 08:20*	*04/29/20 17:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.237	U	0.359	0.360	5.00	0.591	pCi/L		05/11/20 07:45	1

Client Sample ID: BA06781 MW-8

Date Collected: 04/08/20 14:55
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-24

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0744	U	0.0596	0.0599	1.00	0.0836	pCi/L	04/20/20 16:31	05/13/20 04:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.1*		*40 - 110*	*04/20/20 16:31*	*05/13/20 04:33*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.31	U G	3.23	3.23	1.00	5.56	pCi/L	05/06/20 12:07	05/12/20 08:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.9*		*40 - 110*	*05/06/20 12:07*	*05/12/20 08:29*	*1*
Y Carrier	*87.1*		*40 - 110*	*05/06/20 12:07*	*05/12/20 08:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.38	U G	3.23	3.23	5.00	5.56	pCi/L		05/13/20 08:23	1

Client Sample ID: BA06782 EB-1

Date Collected: 04/08/20 15:30
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-25

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0121	U	0.0320	0.0320	1.00	0.0805	pCi/L	04/20/20 16:31	05/13/20 04:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*04/20/20 16:31*	*05/13/20 04:33*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0560	U G	2.88	2.88	1.00	5.17	pCi/L	05/06/20 12:07	05/12/20 08:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*40 - 110*	*05/06/20 12:07*	*05/12/20 08:29*	*1*
Y Carrier	*85.6*		*40 - 110*	*05/06/20 12:07*	*05/12/20 08:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0681	U G	2.88	2.88	5.00	5.17	pCi/L		05/13/20 08:23	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Client Sample ID: BA06602 MW-2
Date Collected: 04/06/20 11:32
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 05:14	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469241	04/30/20 12:39	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06603 MW-1
Date Collected: 04/06/20 12:35
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 05:15	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:41	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06604 MW-3
Date Collected: 04/06/20 13:40
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 05:15	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:42	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06605 MW-4
Date Collected: 04/06/20 14:58
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 05:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:42	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Client Sample ID: BA06606 MW-5
Date Collected: 04/07/20 11:55
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 05:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:42	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06607 FB-2
Date Collected: 04/07/20 12:30
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 05:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:42	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06764 MW-12V
Date Collected: 04/06/20 11:45
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 06:59	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:42	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06765 FB-1
Date Collected: 04/06/20 12:12
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 06:59	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:42	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Client Sample ID: BA06766 MW-12
Date Collected: 04/06/20 12:52
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 06:59	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:43	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06767 MW-11
Date Collected: 04/06/20 14:22
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 06:59	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:43	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06768 MW-16
Date Collected: 04/06/20 15:49
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 07:00	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:43	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06769 MW-16 DUP
Date Collected: 04/06/20 15:49
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 07:00	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:43	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Client Sample ID: BA06770 MW-17R
Date Collected: 04/07/20 08:49
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467926	04/16/20 08:31	RBR	TAL SL
Total/NA	Analysis	9315		1	469887	05/08/20 07:00	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467931	04/16/20 09:42	RBR	TAL SL
Total/NA	Analysis	9320		1	469211	04/30/20 12:43	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06771 MW-14
Date Collected: 04/07/20 09:56
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:27	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:05	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06772 MW-15
Date Collected: 04/07/20 11:04
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:05	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06773 MW-13
Date Collected: 04/07/20 12:05
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:05	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06774 MW-18

Lab Sample ID: 400-186670-17

Date Collected: 04/08/20 08:20

Matrix: Water

Date Received: 04/13/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:05	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06775 MW-19

Lab Sample ID: 400-186670-18

Date Collected: 04/08/20 09:55

Matrix: Water

Date Received: 04/13/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:05	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06776 MW-20

Lab Sample ID: 400-186670-19

Date Collected: 04/08/20 10:47

Matrix: Water

Date Received: 04/13/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:05	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06777 MW-10

Lab Sample ID: 400-186670-20

Date Collected: 04/08/20 12:00

Matrix: Water

Date Received: 04/13/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:06	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Client Sample ID: BA06778 MW-6

Date Collected: 04/08/20 13:06
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:06	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06779 MW-6 DUP

Date Collected: 04/08/20 13:06
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:06	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06780 MW-7

Date Collected: 04/08/20 14:03
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-23

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467921	04/16/20 06:51	RBR	TAL SL
Total/NA	Analysis	9315		1	469888	05/08/20 05:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			467923	04/16/20 08:20	RBR	TAL SL
Total/NA	Analysis	9320		1	469160	04/29/20 17:06	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469980	05/11/20 07:45	SMP	TAL SL

Client Sample ID: BA06781 MW-8

Date Collected: 04/08/20 14:55
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468173	04/20/20 16:31	MMO	TAL SL
Total/NA	Analysis	9315		1	470263	05/13/20 04:33	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			469667	05/06/20 12:07	MNH	TAL SL
Total/NA	Analysis	9320		1	470215	05/12/20 08:29	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470274	05/13/20 08:23	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Client Sample ID: BA06782 EB-1

Date Collected: 04/08/20 15:30
Date Received: 04/13/20 14:00

Lab Sample ID: 400-186670-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468173	04/20/20 16:31	MMO	TAL SL
Total/NA	Analysis	9315		1	470263	05/13/20 04:33	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			469667	05/06/20 12:07	MNH	TAL SL
Total/NA	Analysis	9320		1	470215	05/12/20 08:29	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470274	05/13/20 08:23	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 467921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186670-14	BA06771 MW-14	Total/NA	Water	PrecSep-21	
400-186670-15	BA06772 MW-15	Total/NA	Water	PrecSep-21	
400-186670-16	BA06773 MW-13	Total/NA	Water	PrecSep-21	
400-186670-17	BA06774 MW-18	Total/NA	Water	PrecSep-21	
400-186670-18	BA06775 MW-19	Total/NA	Water	PrecSep-21	
400-186670-19	BA06776 MW-20	Total/NA	Water	PrecSep-21	
400-186670-20	BA06777 MW-10	Total/NA	Water	PrecSep-21	
400-186670-21	BA06778 MW-6	Total/NA	Water	PrecSep-21	
400-186670-22	BA06779 MW-6 DUP	Total/NA	Water	PrecSep-21	
400-186670-23	BA06780 MW-7	Total/NA	Water	PrecSep-21	
MB 160-467921/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-467921/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-186670-14 MS	BA06771 MW-14	Total/NA	Water	PrecSep-21	
400-186670-14 MSD	BA06771 MW-14	Total/NA	Water	PrecSep-21	

Prep Batch: 467923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186670-14	BA06771 MW-14	Total/NA	Water	PrecSep_0	
400-186670-15	BA06772 MW-15	Total/NA	Water	PrecSep_0	
400-186670-16	BA06773 MW-13	Total/NA	Water	PrecSep_0	
400-186670-17	BA06774 MW-18	Total/NA	Water	PrecSep_0	
400-186670-18	BA06775 MW-19	Total/NA	Water	PrecSep_0	
400-186670-19	BA06776 MW-20	Total/NA	Water	PrecSep_0	
400-186670-20	BA06777 MW-10	Total/NA	Water	PrecSep_0	
400-186670-21	BA06778 MW-6	Total/NA	Water	PrecSep_0	
400-186670-22	BA06779 MW-6 DUP	Total/NA	Water	PrecSep_0	
400-186670-23	BA06780 MW-7	Total/NA	Water	PrecSep_0	
MB 160-467923/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-467923/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-186670-14 MS	BA06771 MW-14	Total/NA	Water	PrecSep_0	
400-186670-14 MSD	BA06771 MW-14	Total/NA	Water	PrecSep_0	

Prep Batch: 467926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186670-1	BA06602 MW-2	Total/NA	Water	PrecSep-21	
400-186670-2	BA06603 MW-1	Total/NA	Water	PrecSep-21	
400-186670-3	BA06604 MW-3	Total/NA	Water	PrecSep-21	
400-186670-4	BA06605 MW-4	Total/NA	Water	PrecSep-21	
400-186670-5	BA06606 MW-5	Total/NA	Water	PrecSep-21	
400-186670-6	BA06607 FB-2	Total/NA	Water	PrecSep-21	
400-186670-7	BA06764 MW-12V	Total/NA	Water	PrecSep-21	
400-186670-8	BA06765 FB-1	Total/NA	Water	PrecSep-21	
400-186670-9	BA06766 MW-12	Total/NA	Water	PrecSep-21	
400-186670-10	BA06767 MW-11	Total/NA	Water	PrecSep-21	
400-186670-11	BA06768 MW-16	Total/NA	Water	PrecSep-21	
400-186670-12	BA06769 MW-16 DUP	Total/NA	Water	PrecSep-21	
400-186670-13	BA06770 MW-17R	Total/NA	Water	PrecSep-21	
MB 160-467926/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-467926/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-186670-1 MS	BA06602 MW-2	Total/NA	Water	PrecSep-21	
400-186670-1 MSD	BA06602 MW-2	Total/NA	Water	PrecSep-21	

Rad

Prep Batch: 467931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186670-1	BA06602 MW-2	Total/NA	Water	PrecSep_0	
400-186670-2	BA06603 MW-1	Total/NA	Water	PrecSep_0	
400-186670-3	BA06604 MW-3	Total/NA	Water	PrecSep_0	
400-186670-4	BA06605 MW-4	Total/NA	Water	PrecSep_0	
400-186670-5	BA06606 MW-5	Total/NA	Water	PrecSep_0	
400-186670-6	BA06607 FB-2	Total/NA	Water	PrecSep_0	
400-186670-7	BA06764 MW-12V	Total/NA	Water	PrecSep_0	
400-186670-8	BA06765 FB-1	Total/NA	Water	PrecSep_0	
400-186670-9	BA06766 MW-12	Total/NA	Water	PrecSep_0	
400-186670-10	BA06767 MW-11	Total/NA	Water	PrecSep_0	
400-186670-11	BA06768 MW-16	Total/NA	Water	PrecSep_0	
400-186670-12	BA06769 MW-16 DUP	Total/NA	Water	PrecSep_0	
400-186670-13	BA06770 MW-17R	Total/NA	Water	PrecSep_0	
MB 160-467931/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-467931/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-186670-1 MS	BA06602 MW-2	Total/NA	Water	PrecSep_0	
400-186670-1 MSD	BA06602 MW-2	Total/NA	Water	PrecSep_0	

Prep Batch: 468173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186670-24	BA06781 MW-8	Total/NA	Water	PrecSep-21	
400-186670-25	BA06782 EB-1	Total/NA	Water	PrecSep-21	
MB 160-468173/23-B	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-468173/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-468173/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
240-129038-B-2-C MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-129038-B-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 469667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186670-24	BA06781 MW-8	Total/NA	Water	PrecSep_0	
400-186670-25	BA06782 EB-1	Total/NA	Water	PrecSep_0	
MB 160-469667/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-469667/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-129038-A-2-A MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-129038-J-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-467921/23-A
Matrix: Water
Analysis Batch: 469888

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467921

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01574	U	0.0486	0.0486	1.00	0.0955	pCi/L	04/16/20 06:51	05/08/20 07:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*40 - 110*	*04/16/20 06:51*	*05/08/20 07:14*	*1*

Lab Sample ID: LCS 160-467921/1-A
Matrix: Water
Analysis Batch: 469973

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467921

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	12.76		1.72	1.00	0.483	pCi/L	84	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*73.2*		*40 - 110*

Lab Sample ID: 400-186670-14 MS
Matrix: Water
Analysis Batch: 469888

Client Sample ID: BA06771 MW-14
Prep Type: Total/NA
Prep Batch: 467921

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.0352	U	15.1	11.30		1.20	1.00	0.131	pCi/L	75	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*88.4*		*40 - 110*

Lab Sample ID: 400-186670-14 MSD
Matrix: Water
Analysis Batch: 469888

Client Sample ID: BA06771 MW-14
Prep Type: Total/NA
Prep Batch: 467921

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.0352	U	15.1	11.88		1.25	1.00	0.131	pCi/L	78	75 - 138	0.24	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*88.4*		*40 - 110*

Lab Sample ID: MB 160-467926/23-A
Matrix: Water
Analysis Batch: 469887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467926

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03987	U	0.0713	0.0714	1.00	0.127	pCi/L	04/16/20 08:31	05/08/20 07:01	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-467926/23-A
Matrix: Water
Analysis Batch: 469887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467926

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		40 - 110	04/16/20 08:31	05/08/20 07:01	1

Lab Sample ID: LCS 160-467926/1-A
Matrix: Water
Analysis Batch: 469887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467926

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	13.42		1.41	1.00	0.101	pCi/L	89	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.9		40 - 110

Lab Sample ID: 400-186670-1 MS
Matrix: Water
Analysis Batch: 469887

Client Sample ID: BA06602 MW-2
Prep Type: Total/NA
Prep Batch: 467926

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.175		15.1	13.32		1.41	1.00	0.103	pCi/L	87	75 - 138		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	90.9		40 - 110

Lab Sample ID: 400-186670-1 MSD
Matrix: Water
Analysis Batch: 469887

Client Sample ID: BA06602 MW-2
Prep Type: Total/NA
Prep Batch: 467926

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.175		15.1	13.53		1.44	1.00	0.187	pCi/L	88	75 - 138	0.07	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	80.5		40 - 110

Lab Sample ID: MB 160-468173/23-B
Matrix: Water
Analysis Batch: 470263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468173

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02495	U	0.0470	0.0471	1.00	0.0846	pCi/L	04/20/20 16:31	05/13/20 04:33	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.1		40 - 110	04/20/20 16:31	05/13/20 04:33	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-468173/1-A
Matrix: Water
Analysis Batch: 470263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468173

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.13		1.06	1.00	0.0771	pCi/L	89	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*80.5*		*40 - 110*

Lab Sample ID: LCSD 160-468173/2-A
Matrix: Water
Analysis Batch: 470263

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468173

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	10.90		1.13	1.00	0.0848	pCi/L	96	75 - 125	0.35	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*81.1*		*40 - 110*

Lab Sample ID: 240-129038-B-2-C MS
Matrix: Water
Analysis Batch: 470263

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 468173

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.0637	U	11.3	11.15		1.15	1.00	0.119	pCi/L	98	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*83.8*		*40 - 110*

Lab Sample ID: 240-129038-B-2-D MSD
Matrix: Water
Analysis Batch: 470263

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 468173

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.0637	U	11.3	10.94		1.13	1.00	0.0919	pCi/L	96	75 - 138	0.09	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*84.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-467923/23-A
Matrix: Water
Analysis Batch: 469171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467923

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2922	U	0.323	0.324	1.00	0.530	pCi/L	04/16/20 08:20	04/29/20 17:11	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.6		40 - 110	04/16/20 08:20	04/29/20 17:11	1
Y Carrier	94.2		40 - 110	04/16/20 08:20	04/29/20 17:11	1

Lab Sample ID: LCS 160-467923/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469160 — **Prep Batch: 467923**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			11.8	11.28		1.36	1.00	0.584	pCi/L	95	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.2		40 - 110
Y Carrier	89.7		40 - 110

Lab Sample ID: 400-186670-14 MS — **Client Sample ID: BA06771 MW-14**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469160 — **Prep Batch: 467923**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.241	U	11.8	11.31		1.37	1.00	0.603	pCi/L	94	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	88.4		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: 400-186670-14 MSD — **Client Sample ID: BA06771 MW-14**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469160 — **Prep Batch: 467923**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.241	U	11.8	11.04		1.33	1.00	0.502	pCi/L	91	45 - 150	0.1	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	88.4		40 - 110
Y Carrier	87.5		40 - 110

Lab Sample ID: MB 160-467931/23-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469211 — **Prep Batch: 467931**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1068	U	0.306	0.306	1.00	0.569	pCi/L	04/16/20 09:42	04/30/20 12:44	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		40 - 110	04/16/20 09:42	04/30/20 12:44	1
Y Carrier	85.6		40 - 110	04/16/20 09:42	04/30/20 12:44	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-467931/1-A
Matrix: Water
Analysis Batch: 469241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467931

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			11.8	10.78		1.32	1.00	0.561	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.9*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

Lab Sample ID: 400-186670-1 MS
Matrix: Water
Analysis Batch: 469241

Client Sample ID: BA06602 MW-2
Prep Type: Total/NA
Prep Batch: 467931

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.0370	U	11.8	11.84		1.44	1.00	0.588	pCi/L	100	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*90.9*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

Lab Sample ID: 400-186670-1 MSD
Matrix: Water
Analysis Batch: 469241

Client Sample ID: BA06602 MW-2
Prep Type: Total/NA
Prep Batch: 467931

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.0370	U	11.8	10.78		1.37	1.00	0.673	pCi/L	91	45 - 150	0.38	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*80.5*		*40 - 110*
Y Carrier	*88.6*		*40 - 110*

Lab Sample ID: MB 160-469667/20-A
Matrix: Water
Analysis Batch: 470215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469667

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1384	U	0.308	0.308	1.00	0.531	pCi/L	05/06/20 12:07	05/12/20 08:29	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*05/06/20 12:07*	*05/12/20 08:29*	*1*
Y Carrier	*82.6*		*40 - 110*	*05/06/20 12:07*	*05/12/20 08:29*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-469667/1-A
Matrix: Water
Analysis Batch: 470214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469667

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			11.8	12.73		1.53	1.00	0.656	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*83.1*		*40 - 110*
Y Carrier	*87.5*		*40 - 110*

Lab Sample ID: 240-129038-A-2-A MS
Matrix: Water
Analysis Batch: 470215

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 469667

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.795		11.8	11.25		1.35	1.00	0.516	pCi/L	89	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*86.4*		*40 - 110*
Y Carrier	*89.3*		*40 - 110*

Lab Sample ID: 240-129038-J-2-A MSD
Matrix: Water
Analysis Batch: 470215

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 469667

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.795		11.8	10.54		1.31	1.00	0.488	pCi/L	83	45 - 150	0.27	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*84.3*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-186670 COC

Client Information (Sub Contract Lab)	Sampler: TJ Daugherty	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 2
Company: Alabama Power General Test Laboratory		Accreditations Required (See note)		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Gorgas Landfill 1272	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 CL_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA06602	4/6/20	11:32	G	Water		X				X	3	MW-2
BA06603	4/6/20	12:35	G	Water						X	1	MW-1
BA06604	4/6/20	13:40	G	Water						X	1	MW-3
BA06605	4/6/20	14:58	G	Water						X	1	MW-4
BA06606	4/7/20	11:55	G	Water						X	1	MW-5
BA06607	4/7/20	12:30	G	Water						X	1	FB-2 (Field Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	43599 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 4/09/2020 11:00	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 4-13-20 14:00	Company

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

23.7°, 23.9°, IR9

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 2 of 2
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Gorgas Landfill 1272	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 CL_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA06764	4/6/20	11:45	G	Water						X	1	MW-12V
BA06765	4/6/20	12:12	G	Water						X	1	FB-1 (Field Blank)
BA06766	4/6/20	12:52	G	Water						X	1	MW-12
BA06767	4/6/20	14:22	G	Water						X	1	MW-11
BA06768	4/6/20	15:49	G	Water						X	1	MW-16
BA06769	4/6/20	15:49	G	Water						X	1	MW-16 DUP (Sample Duplicate)
BA06770	4/7/20	08:49	G	Water						X	1	MW-17R
BA06771	4/7/20	09:56	G	Water		X				X	3	MW-14
BA06772	4/7/20	11:04	G	Water						X	1	MW-15
BA06773	4/7/20	12:05	G	Water						X	1	MW-13
BA06774	4/8/20	08:20	G	Water						X	1	MW-18
BA06775	4/8/20	09:55	G	Water						X	1	MW-19
BA06776	4/8/20	10:47	G	Water						X	1	MW-20
BA06777	4/8/20	12:00	G	Water						X	1	MW-10
BA06778	4/8/20	13:06	G	Water						X	1	MW-6
BA06779	4/8/20	13:06	G	Water						X	1	MW-6 DUP (Sample Duplicate)
BA06780	4/8/20	14:03	G	Water						X	1	MW-7
BA06781	4/8/20	14:55	G	Water						X	1	MW-8
BA06782	4/8/20	15:30	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

43599

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Laura Midkiff	4/09/2020 11:00	Water APC			
				4-13-20	14:00

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

23.7°, 23.9°, IR9

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-186670-1
SDG Number: Gorgas Landfill 1272

Login Number: 186670
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	23.7°C, 23.9°C IR-9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-186670-1
SDG Number: Gorgas Landfill 1272

Login Number: 186670
List Number: 2
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 04/15/20 04:32 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	06-30-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-186670-1
SDG: Gorgas Landfill 1272

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	05-14-20
ANAB	Dept. of Energy	L2305.01	05-14-20
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-1	4/6/2020 12:15	Conductivity	2284.43	uS/cm
MW-1	4/6/2020 12:15	DO	0.62	mg/L
MW-1	4/6/2020 12:15	Depth to Water Detail	91.29	ft
MW-1	4/6/2020 12:15	Oxidation Reduction Potention	90.28	mv
MW-1	4/6/2020 12:15	pH	5.21	pH
MW-1	4/6/2020 12:15	Temperature	20.68	C
MW-1	4/6/2020 12:15	Turbidity	2.41	NTU
MW-1	4/6/2020 12:20	Conductivity	2268.67	uS/cm
MW-1	4/6/2020 12:20	DO	0.6	mg/L
MW-1	4/6/2020 12:20	Depth to Water Detail	91.43	ft
MW-1	4/6/2020 12:20	Oxidation Reduction Potention	89.25	mv
MW-1	4/6/2020 12:20	pH	5.21	pH
MW-1	4/6/2020 12:20	Temperature	20.45	C
MW-1	4/6/2020 12:20	Turbidity	2.2	NTU
MW-1	4/6/2020 12:25	Conductivity	2292.45	uS/cm
MW-1	4/6/2020 12:25	DO	0.5	mg/L
MW-1	4/6/2020 12:25	Depth to Water Detail	91.46	ft
MW-1	4/6/2020 12:25	Oxidation Reduction Potention	91.78	mv
MW-1	4/6/2020 12:25	pH	5.21	pH
MW-1	4/6/2020 12:25	Temperature	20.46	C
MW-1	4/6/2020 12:25	Turbidity	2.09	NTU
MW-1	4/6/2020 12:30	Conductivity	2297	uS/cm
MW-1	4/6/2020 12:30	DO	0.45	mg/L
MW-1	4/6/2020 12:30	Depth to Water Detail	91.48	ft
MW-1	4/6/2020 12:30	Oxidation Reduction Potention	92.72	mv
MW-1	4/6/2020 12:30	pH	5.21	pH
MW-1	4/6/2020 12:30	Temperature	20.52	C
MW-1	4/6/2020 12:30	Turbidity	1.92	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-2	4/6/2020 11:14	Conductivity	1630.46	uS/cm
MW-2	4/6/2020 11:14	DO	0.56	mg/L
MW-2	4/6/2020 11:14	Depth to Water Detail	84.36	ft
MW-2	4/6/2020 11:14	Oxidation Reduction Potention	49.68	mv
MW-2	4/6/2020 11:14	pH	6.19	pH
MW-2	4/6/2020 11:14	Temperature	19.36	C
MW-2	4/6/2020 11:14	Turbidity	17.2	NTU
MW-2	4/6/2020 11:19	Conductivity	1635.11	uS/cm
MW-2	4/6/2020 11:19	DO	0.57	mg/L
MW-2	4/6/2020 11:19	Depth to Water Detail	84.36	ft
MW-2	4/6/2020 11:19	Oxidation Reduction Potention	51.12	mv
MW-2	4/6/2020 11:19	pH	6.21	pH
MW-2	4/6/2020 11:19	Temperature	19.25	C
MW-2	4/6/2020 11:19	Turbidity	6.93	NTU
MW-2	4/6/2020 11:24	Conductivity	1632.85	uS/cm
MW-2	4/6/2020 11:24	DO	0.6	mg/L
MW-2	4/6/2020 11:24	Depth to Water Detail	84.36	ft
MW-2	4/6/2020 11:24	Oxidation Reduction Potention	50.15	mv
MW-2	4/6/2020 11:24	pH	6.21	pH
MW-2	4/6/2020 11:24	Temperature	19.26	C
MW-2	4/6/2020 11:24	Turbidity	4.44	NTU
MW-2	4/6/2020 11:29	Conductivity	1633.26	uS/cm
MW-2	4/6/2020 11:29	DO	0.58	mg/L
MW-2	4/6/2020 11:29	Depth to Water Detail	84.36	ft
MW-2	4/6/2020 11:29	Oxidation Reduction Potention	50.2	mv
MW-2	4/6/2020 11:29	pH	6.21	pH
MW-2	4/6/2020 11:29	Temperature	19.41	C
MW-2	4/6/2020 11:29	Turbidity	3.69	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-3	4/6/2020 13:13	Conductivity	3614.82	uS/cm
MW-3	4/6/2020 13:13	DO	7.02	mg/L
MW-3	4/6/2020 13:13	Depth to Water Detail	108.56	ft
MW-3	4/6/2020 13:13	Oxidation Reduction Potention	95.41	mv
MW-3	4/6/2020 13:13	pH	5.76	pH
MW-3	4/6/2020 13:13	Temperature	23.89	C
MW-3	4/6/2020 13:13	Turbidity	4.63	NTU
MW-3	4/6/2020 13:18	Conductivity	2689.42	uS/cm
MW-3	4/6/2020 13:18	DO	5.75	mg/L
MW-3	4/6/2020 13:18	Depth to Water Detail	108.58	ft
MW-3	4/6/2020 13:18	Oxidation Reduction Potention	89.67	mv
MW-3	4/6/2020 13:18	pH	5.85	pH
MW-3	4/6/2020 13:18	Temperature	23.38	C
MW-3	4/6/2020 13:18	Turbidity	47.9	NTU
MW-3	4/6/2020 13:23	Conductivity	2481.85	uS/cm
MW-3	4/6/2020 13:23	DO	5.15	mg/L
MW-3	4/6/2020 13:23	Depth to Water Detail	108.61	ft
MW-3	4/6/2020 13:23	Oxidation Reduction Potention	87.95	mv
MW-3	4/6/2020 13:23	pH	5.9	pH
MW-3	4/6/2020 13:23	Temperature	23.09	C
MW-3	4/6/2020 13:23	Turbidity	28	NTU
MW-3	4/6/2020 13:28	Conductivity	2473.58	uS/cm
MW-3	4/6/2020 13:28	DO	5	mg/L
MW-3	4/6/2020 13:28	Depth to Water Detail	108.64	ft
MW-3	4/6/2020 13:28	Oxidation Reduction Potention	88.16	mv
MW-3	4/6/2020 13:28	pH	5.9	pH
MW-3	4/6/2020 13:28	Temperature	23.36	C
MW-3	4/6/2020 13:28	Turbidity	13	NTU
MW-3	4/6/2020 13:33	Conductivity	2465.87	uS/cm
MW-3	4/6/2020 13:33	DO	4.93	mg/L
MW-3	4/6/2020 13:33	Depth to Water Detail	108.72	ft
MW-3	4/6/2020 13:33	Oxidation Reduction Potention	89.47	mv
MW-3	4/6/2020 13:33	pH	5.91	pH
MW-3	4/6/2020 13:33	Temperature	23.28	C
MW-3	4/6/2020 13:33	Turbidity	10.88	NTU
MW-3	4/6/2020 13:38	Conductivity	2462.99	uS/cm
MW-3	4/6/2020 13:38	DO	4.89	mg/L
MW-3	4/6/2020 13:38	Depth to Water Detail	108.81	ft
MW-3	4/6/2020 13:38	Oxidation Reduction Potention	90.59	mv
MW-3	4/6/2020 13:38	pH	5.91	pH
MW-3	4/6/2020 13:38	Temperature	23.28	C
MW-3	4/6/2020 13:38	Turbidity	7.59	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-4	4/6/2020 14:34	Conductivity	2641.02	uS/cm
MW-4	4/6/2020 14:34	DO	2.37	mg/L
MW-4	4/6/2020 14:34	Depth to Water Detail	116.09	ft
MW-4	4/6/2020 14:34	Oxidation Reduction Potention	83.94	mv
MW-4	4/6/2020 14:34	pH	6.36	pH
MW-4	4/6/2020 14:34	Temperature	20.67	C
MW-4	4/6/2020 14:34	Turbidity	39.2	NTU
MW-4	4/6/2020 14:39	Conductivity	2630.46	uS/cm
MW-4	4/6/2020 14:39	DO	2.34	mg/L
MW-4	4/6/2020 14:39	Depth to Water Detail	116.09	ft
MW-4	4/6/2020 14:39	Oxidation Reduction Potention	82.71	mv
MW-4	4/6/2020 14:39	pH	6.36	pH
MW-4	4/6/2020 14:39	Temperature	20.7	C
MW-4	4/6/2020 14:39	Turbidity	13.17	NTU
MW-4	4/6/2020 14:44	Conductivity	2793.36	uS/cm
MW-4	4/6/2020 14:44	DO	2.55	mg/L
MW-4	4/6/2020 14:44	Depth to Water Detail	116.09	ft
MW-4	4/6/2020 14:44	Oxidation Reduction Potention	82.94	mv
MW-4	4/6/2020 14:44	pH	6.36	pH
MW-4	4/6/2020 14:44	Temperature	20.6	C
MW-4	4/6/2020 14:44	Turbidity	11.22	NTU
MW-4	4/6/2020 14:49	Conductivity	2793.16	uS/cm
MW-4	4/6/2020 14:49	DO	2.65	mg/L
MW-4	4/6/2020 14:49	Depth to Water Detail	116.09	ft
MW-4	4/6/2020 14:49	Oxidation Reduction Potention	83.16	mv
MW-4	4/6/2020 14:49	pH	6.36	pH
MW-4	4/6/2020 14:49	Temperature	20.66	C
MW-4	4/6/2020 14:49	Turbidity	7.47	NTU
MW-4	4/6/2020 14:54	Conductivity	2789.74	uS/cm
MW-4	4/6/2020 14:54	DO	2.71	mg/L
MW-4	4/6/2020 14:54	Depth to Water Detail	116.09	ft
MW-4	4/6/2020 14:54	Oxidation Reduction Potention	83.67	mv
MW-4	4/6/2020 14:54	pH	6.35	pH
MW-4	4/6/2020 14:54	Temperature	20.6	C
MW-4	4/6/2020 14:54	Turbidity	4.65	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-5	4/7/2020 11:19	Conductivity	3450.14	uS/cm
MW-5	4/7/2020 11:19	DO	5.09	mg/L
MW-5	4/7/2020 11:19	Depth to Water Detail	125.89	ft
MW-5	4/7/2020 11:19	Oxidation Reduction Potention	-28.23	mv
MW-5	4/7/2020 11:19	pH	6.72	pH
MW-5	4/7/2020 11:19	Temperature	21.12	C
MW-5	4/7/2020 11:19	Turbidity	4.83	NTU
MW-5	4/7/2020 11:24	Conductivity	3315.85	uS/cm
MW-5	4/7/2020 11:24	DO	2.67	mg/L
MW-5	4/7/2020 11:24	Depth to Water Detail	125.91	ft
MW-5	4/7/2020 11:24	Oxidation Reduction Potention	-27.18	mv
MW-5	4/7/2020 11:24	pH	6.52	pH
MW-5	4/7/2020 11:24	Temperature	21	C
MW-5	4/7/2020 11:24	Turbidity	4.63	NTU
MW-5	4/7/2020 11:29	Conductivity	3243.75	uS/cm
MW-5	4/7/2020 11:29	DO	1.58	mg/L
MW-5	4/7/2020 11:29	Depth to Water Detail	125.94	ft
MW-5	4/7/2020 11:29	Oxidation Reduction Potention	-27.69	mv
MW-5	4/7/2020 11:29	pH	6.45	pH
MW-5	4/7/2020 11:29	Temperature	20.86	C
MW-5	4/7/2020 11:29	Turbidity	5.8	NTU
MW-5	4/7/2020 11:34	Conductivity	3212.42	uS/cm
MW-5	4/7/2020 11:34	DO	1.19	mg/L
MW-5	4/7/2020 11:34	Depth to Water Detail	125.94	ft
MW-5	4/7/2020 11:34	Oxidation Reduction Potention	-27.03	mv
MW-5	4/7/2020 11:34	pH	6.43	pH
MW-5	4/7/2020 11:34	Temperature	20.79	C
MW-5	4/7/2020 11:34	Turbidity	4.11	NTU
MW-5	4/7/2020 11:39	Conductivity	3197.92	uS/cm
MW-5	4/7/2020 11:39	DO	1.03	mg/L
MW-5	4/7/2020 11:39	Depth to Water Detail	125.94	ft
MW-5	4/7/2020 11:39	Oxidation Reduction Potention	-25.28	mv
MW-5	4/7/2020 11:39	pH	6.43	pH
MW-5	4/7/2020 11:39	Temperature	20.9	C
MW-5	4/7/2020 11:39	Turbidity	4.27	NTU
MW-5	4/7/2020 11:44	Conductivity	3185.96	uS/cm
MW-5	4/7/2020 11:44	DO	0.96	mg/L
MW-5	4/7/2020 11:44	Depth to Water Detail	125.94	ft
MW-5	4/7/2020 11:44	Oxidation Reduction Potention	-22.76	mv
MW-5	4/7/2020 11:44	pH	6.43	pH
MW-5	4/7/2020 11:44	Temperature	20.87	C
MW-5	4/7/2020 11:44	Turbidity	5.34	NTU
MW-5	4/7/2020 11:49	Conductivity	3169.22	uS/cm
MW-5	4/7/2020 11:49	DO	0.92	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-5	4/7/2020 11:49	Depth to Water Detail	125.94	ft
MW-5	4/7/2020 11:49	Oxidation Reduction Potention	-19.93	mv
MW-5	4/7/2020 11:49	pH	6.43	pH
MW-5	4/7/2020 11:49	Temperature	20.76	C
MW-5	4/7/2020 11:49	Turbidity	4.98	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-6	4/8/2020 12:43	Conductivity	2891.82	uS/cm
MW-6	4/8/2020 12:43	DO	0.18	mg/L
MW-6	4/8/2020 12:43	Depth to Water Detail	94.21	ft
MW-6	4/8/2020 12:43	Oxidation Reduction Potention	211.08	mv
MW-6	4/8/2020 12:43	pH	4.95	pH
MW-6	4/8/2020 12:43	Temperature	20.57	C
MW-6	4/8/2020 12:43	Turbidity	7.17	NTU
MW-6	4/8/2020 12:48	Conductivity	2889.53	uS/cm
MW-6	4/8/2020 12:48	DO	0.16	mg/L
MW-6	4/8/2020 12:48	Depth to Water Detail	94.21	ft
MW-6	4/8/2020 12:48	Oxidation Reduction Potention	216.06	mv
MW-6	4/8/2020 12:48	pH	4.95	pH
MW-6	4/8/2020 12:48	Temperature	20.6	C
MW-6	4/8/2020 12:48	Turbidity	11.28	NTU
MW-6	4/8/2020 12:53	Conductivity	2890.8	uS/cm
MW-6	4/8/2020 12:53	DO	0.15	mg/L
MW-6	4/8/2020 12:53	Depth to Water Detail	94.21	ft
MW-6	4/8/2020 12:53	Oxidation Reduction Potention	218.34	mv
MW-6	4/8/2020 12:53	pH	4.97	pH
MW-6	4/8/2020 12:53	Temperature	20.63	C
MW-6	4/8/2020 12:53	Turbidity	13.8	NTU
MW-6	4/8/2020 12:58	Conductivity	2888.09	uS/cm
MW-6	4/8/2020 12:58	DO	0.15	mg/L
MW-6	4/8/2020 12:58	Depth to Water Detail	94.21	ft
MW-6	4/8/2020 12:58	Oxidation Reduction Potention	218.87	mv
MW-6	4/8/2020 12:58	pH	4.97	pH
MW-6	4/8/2020 12:58	Temperature	20.61	C
MW-6	4/8/2020 12:58	Turbidity	8.6	NTU
MW-6	4/8/2020 13:03	Conductivity	2888.93	uS/cm
MW-6	4/8/2020 13:03	DO	0.14	mg/L
MW-6	4/8/2020 13:03	Depth to Water Detail	94.21	ft
MW-6	4/8/2020 13:03	Oxidation Reduction Potention	216.87	mv
MW-6	4/8/2020 13:03	pH	4.98	pH
MW-6	4/8/2020 13:03	Temperature	20.57	C
MW-6	4/8/2020 13:03	Turbidity	5.39	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-7	4/8/2020 13:45	Conductivity	2718.62	uS/cm
MW-7	4/8/2020 13:45	DO	0.29	mg/L
MW-7	4/8/2020 13:45	Depth to Water Detail	56.29	ft
MW-7	4/8/2020 13:45	Oxidation Reduction Potention	3.8	mv
MW-7	4/8/2020 13:45	pH	6.64	pH
MW-7	4/8/2020 13:45	Temperature	19.59	C
MW-7	4/8/2020 13:45	Turbidity	3.3	NTU
MW-7	4/8/2020 13:50	Conductivity	2643.35	uS/cm
MW-7	4/8/2020 13:50	DO	0.35	mg/L
MW-7	4/8/2020 13:50	Depth to Water Detail	56.29	ft
MW-7	4/8/2020 13:50	Oxidation Reduction Potention	4.05	mv
MW-7	4/8/2020 13:50	pH	6.65	pH
MW-7	4/8/2020 13:50	Temperature	19.63	C
MW-7	4/8/2020 13:50	Turbidity	1.33	NTU
MW-7	4/8/2020 13:55	Conductivity	2608.83	uS/cm
MW-7	4/8/2020 13:55	DO	0.29	mg/L
MW-7	4/8/2020 13:55	Depth to Water Detail	56.29	ft
MW-7	4/8/2020 13:55	Oxidation Reduction Potention	3.32	mv
MW-7	4/8/2020 13:55	pH	6.65	pH
MW-7	4/8/2020 13:55	Temperature	19.62	C
MW-7	4/8/2020 13:55	Turbidity	1.06	NTU
MW-7	4/8/2020 14:00	Conductivity	2577.46	uS/cm
MW-7	4/8/2020 14:00	DO	0.27	mg/L
MW-7	4/8/2020 14:00	Depth to Water Detail	56.29	ft
MW-7	4/8/2020 14:00	Oxidation Reduction Potention	3.75	mv
MW-7	4/8/2020 14:00	pH	6.64	pH
MW-7	4/8/2020 14:00	Temperature	19.67	C
MW-7	4/8/2020 14:00	Turbidity	1.07	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-8	4/8/2020 14:36	Conductivity	2737.4	uS/cm
MW-8	4/8/2020 14:36	DO	1.11	mg/L
MW-8	4/8/2020 14:36	Depth to Water Detail	63.89	ft
MW-8	4/8/2020 14:36	Oxidation Reduction Potention	4.34	mv
MW-8	4/8/2020 14:36	pH	6.72	pH
MW-8	4/8/2020 14:36	Temperature	20.79	C
MW-8	4/8/2020 14:36	Turbidity	10.55	NTU
MW-8	4/8/2020 14:41	Conductivity	2716.18	uS/cm
MW-8	4/8/2020 14:41	DO	0.72	mg/L
MW-8	4/8/2020 14:41	Depth to Water Detail	64.14	ft
MW-8	4/8/2020 14:41	Oxidation Reduction Potention	1.95	mv
MW-8	4/8/2020 14:41	pH	6.71	pH
MW-8	4/8/2020 14:41	Temperature	20.96	C
MW-8	4/8/2020 14:41	Turbidity	8.16	NTU
MW-8	4/8/2020 14:46	Conductivity	2709.29	uS/cm
MW-8	4/8/2020 14:46	DO	0.61	mg/L
MW-8	4/8/2020 14:46	Depth to Water Detail	64.27	ft
MW-8	4/8/2020 14:46	Oxidation Reduction Potention	1.49	mv
MW-8	4/8/2020 14:46	pH	6.7	pH
MW-8	4/8/2020 14:46	Temperature	20.94	C
MW-8	4/8/2020 14:46	Turbidity	4.41	NTU
MW-8	4/8/2020 14:51	Conductivity	2707.34	uS/cm
MW-8	4/8/2020 14:51	DO	0.57	mg/L
MW-8	4/8/2020 14:51	Depth to Water Detail	64.38	ft
MW-8	4/8/2020 14:51	Oxidation Reduction Potention	0.91	mv
MW-8	4/8/2020 14:51	pH	6.7	pH
MW-8	4/8/2020 14:51	Temperature	21.05	C
MW-8	4/8/2020 14:51	Turbidity	2.72	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-10	4/8/2020 11:21	Conductivity	1466.31	uS/cm
MW-10	4/8/2020 11:21	DO	5.85	mg/L
MW-10	4/8/2020 11:21	Depth to Water Detail	85.05	ft
MW-10	4/8/2020 11:21	Oxidation Reduction Potention	44.61	mv
MW-10	4/8/2020 11:21	pH	6.58	pH
MW-10	4/8/2020 11:21	Temperature	21	C
MW-10	4/8/2020 11:21	Turbidity	6.13	NTU
MW-10	4/8/2020 11:26	Conductivity	1453.84	uS/cm
MW-10	4/8/2020 11:26	DO	1.47	mg/L
MW-10	4/8/2020 11:26	Depth to Water Detail	85.33	ft
MW-10	4/8/2020 11:26	Oxidation Reduction Potention	20.37	mv
MW-10	4/8/2020 11:26	pH	6.37	pH
MW-10	4/8/2020 11:26	Temperature	20.96	C
MW-10	4/8/2020 11:26	Turbidity	15.2	NTU
MW-10	4/8/2020 11:31	Conductivity	1448.12	uS/cm
MW-10	4/8/2020 11:31	DO	0.71	mg/L
MW-10	4/8/2020 11:31	Depth to Water Detail	85.51	ft
MW-10	4/8/2020 11:31	Oxidation Reduction Potention	18.13	mv
MW-10	4/8/2020 11:31	pH	6.34	pH
MW-10	4/8/2020 11:31	Temperature	20.86	C
MW-10	4/8/2020 11:31	Turbidity	24.2	NTU
MW-10	4/8/2020 11:36	Conductivity	1447.07	uS/cm
MW-10	4/8/2020 11:36	DO	0.53	mg/L
MW-10	4/8/2020 11:36	Depth to Water Detail	85.7	ft
MW-10	4/8/2020 11:36	Oxidation Reduction Potention	16.6	mv
MW-10	4/8/2020 11:36	pH	6.34	pH
MW-10	4/8/2020 11:36	Temperature	21.27	C
MW-10	4/8/2020 11:36	Turbidity	31.1	NTU
MW-10	4/8/2020 11:41	Conductivity	1443.49	uS/cm
MW-10	4/8/2020 11:41	DO	0.47	mg/L
MW-10	4/8/2020 11:41	Depth to Water Detail	85.78	ft
MW-10	4/8/2020 11:41	Oxidation Reduction Potention	15.82	mv
MW-10	4/8/2020 11:41	pH	6.34	pH
MW-10	4/8/2020 11:41	Temperature	21.08	C
MW-10	4/8/2020 11:41	Turbidity	25.4	NTU
MW-10	4/8/2020 11:46	Conductivity	1439.86	uS/cm
MW-10	4/8/2020 11:46	DO	0.44	mg/L
MW-10	4/8/2020 11:46	Depth to Water Detail	85.8	ft
MW-10	4/8/2020 11:46	Oxidation Reduction Potention	15.57	mv
MW-10	4/8/2020 11:46	pH	6.34	pH
MW-10	4/8/2020 11:46	Temperature	21.06	C
MW-10	4/8/2020 11:46	Turbidity	18	NTU
MW-10	4/8/2020 11:51	Conductivity	1448.97	uS/cm
MW-10	4/8/2020 11:51	DO	0.43	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-10	4/8/2020 11:51	Depth to Water Detail	85.86	ft
MW-10	4/8/2020 11:51	Oxidation Reduction Potention	14.63	mv
MW-10	4/8/2020 11:51	pH	6.35	pH
MW-10	4/8/2020 11:51	Temperature	21.25	C
MW-10	4/8/2020 11:51	Turbidity	11.5	NTU
MW-10	4/8/2020 11:56	Conductivity	1454.61	uS/cm
MW-10	4/8/2020 11:56	DO	0.45	mg/L
MW-10	4/8/2020 11:56	Depth to Water Detail	85.89	ft
MW-10	4/8/2020 11:56	Oxidation Reduction Potention	14.24	mv
MW-10	4/8/2020 11:56	pH	6.36	pH
MW-10	4/8/2020 11:56	Temperature	20.61	C
MW-10	4/8/2020 11:56	Turbidity	9.15	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-11	4/6/2020 13:38	Conductivity	2920.34	uS/cm
MW-11	4/6/2020 13:38	DO	0.36	mg/L
MW-11	4/6/2020 13:38	Depth to Water Detail	102.56	ft
MW-11	4/6/2020 13:38	Oxidation Reduction Potention	-27.49	mv
MW-11	4/6/2020 13:38	pH	6.54	pH
MW-11	4/6/2020 13:38	Temperature	20.94	C
MW-11	4/6/2020 13:38	Turbidity	0.89	NTU
MW-11	4/6/2020 13:43	Conductivity	2915.06	uS/cm
MW-11	4/6/2020 13:43	DO	0.3	mg/L
MW-11	4/6/2020 13:43	Depth to Water Detail	104.97	ft
MW-11	4/6/2020 13:43	Oxidation Reduction Potention	-31.58	mv
MW-11	4/6/2020 13:43	pH	6.56	pH
MW-11	4/6/2020 13:43	Temperature	21.36	C
MW-11	4/6/2020 13:43	Turbidity	0.91	NTU
MW-11	4/6/2020 13:48	Conductivity	2914.4	uS/cm
MW-11	4/6/2020 13:48	DO	0.47	mg/L
MW-11	4/6/2020 13:48	Depth to Water Detail	105.16	ft
MW-11	4/6/2020 13:48	Oxidation Reduction Potention	-35.89	mv
MW-11	4/6/2020 13:48	pH	6.59	pH
MW-11	4/6/2020 13:48	Temperature	22.44	C
MW-11	4/6/2020 13:48	Turbidity	0.59	NTU
MW-11	4/6/2020 13:53	Conductivity	2913.13	uS/cm
MW-11	4/6/2020 13:53	DO	0.57	mg/L
MW-11	4/6/2020 13:53	Depth to Water Detail	105.43	ft
MW-11	4/6/2020 13:53	Oxidation Reduction Potention	-37.63	mv
MW-11	4/6/2020 13:53	pH	6.63	pH
MW-11	4/6/2020 13:53	Temperature	22.35	C
MW-11	4/6/2020 13:53	Turbidity	0.63	NTU
MW-11	4/6/2020 13:58	Conductivity	2908.3	uS/cm
MW-11	4/6/2020 13:58	DO	0.62	mg/L
MW-11	4/6/2020 13:58	Depth to Water Detail	105.66	ft
MW-11	4/6/2020 13:58	Oxidation Reduction Potention	-38.53	mv
MW-11	4/6/2020 13:58	pH	6.66	pH
MW-11	4/6/2020 13:58	Temperature	22.06	C
MW-11	4/6/2020 13:58	Turbidity	0.61	NTU
MW-11	4/6/2020 14:03	Conductivity	2902.83	uS/cm
MW-11	4/6/2020 14:03	DO	0.6	mg/L
MW-11	4/6/2020 14:03	Depth to Water Detail	105.85	ft
MW-11	4/6/2020 14:03	Oxidation Reduction Potention	-39.08	mv
MW-11	4/6/2020 14:03	pH	6.67	pH
MW-11	4/6/2020 14:03	Temperature	22.25	C
MW-11	4/6/2020 14:03	Turbidity	0.57	NTU
MW-11	4/6/2020 14:08	Conductivity	2908.46	uS/cm
MW-11	4/6/2020 14:08	DO	0.59	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-11	4/6/2020 14:08	Depth to Water Detail	105.97	ft
MW-11	4/6/2020 14:08	Oxidation Reduction Potention	-39.71	mv
MW-11	4/6/2020 14:08	pH	6.69	pH
MW-11	4/6/2020 14:08	Temperature	22.32	C
MW-11	4/6/2020 14:08	Turbidity	0.58	NTU
MW-11	4/6/2020 14:13	Conductivity	2905.13	uS/cm
MW-11	4/6/2020 14:13	DO	0.6	mg/L
MW-11	4/6/2020 14:13	Depth to Water Detail	106.14	ft
MW-11	4/6/2020 14:13	Oxidation Reduction Potention	-40.87	mv
MW-11	4/6/2020 14:13	pH	6.7	pH
MW-11	4/6/2020 14:13	Temperature	22.6	C
MW-11	4/6/2020 14:13	Turbidity	1.35	NTU
MW-11	4/6/2020 14:18	Conductivity	2910.71	uS/cm
MW-11	4/6/2020 14:18	DO	0.59	mg/L
MW-11	4/6/2020 14:18	Depth to Water Detail	106.25	ft
MW-11	4/6/2020 14:18	Oxidation Reduction Potention	-41.29	mv
MW-11	4/6/2020 14:18	pH	6.72	pH
MW-11	4/6/2020 14:18	Temperature	22.45	C
MW-11	4/6/2020 14:18	Turbidity	0.76	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-12	4/6/2020 12:24	Conductivity	3609.85	uS/cm
MW-12	4/6/2020 12:24	DO	1.68	mg/L
MW-12	4/6/2020 12:24	Depth to Water Detail	153.81	ft
MW-12	4/6/2020 12:24	Oxidation Reduction Potention	9.69	mv
MW-12	4/6/2020 12:24	pH	5.8	pH
MW-12	4/6/2020 12:24	Temperature	22.16	C
MW-12	4/6/2020 12:24	Turbidity	13	NTU
MW-12	4/6/2020 12:29	Conductivity	3676.78	uS/cm
MW-12	4/6/2020 12:29	DO	0.8	mg/L
MW-12	4/6/2020 12:29	Depth to Water Detail	153.81	ft
MW-12	4/6/2020 12:29	Oxidation Reduction Potention	0.78	mv
MW-12	4/6/2020 12:29	pH	5.83	pH
MW-12	4/6/2020 12:29	Temperature	21.92	C
MW-12	4/6/2020 12:29	Turbidity	23.6	NTU
MW-12	4/6/2020 12:34	Conductivity	3728.24	uS/cm
MW-12	4/6/2020 12:34	DO	0.67	mg/L
MW-12	4/6/2020 12:34	Depth to Water Detail	153.81	ft
MW-12	4/6/2020 12:34	Oxidation Reduction Potention	2.04	mv
MW-12	4/6/2020 12:34	pH	5.83	pH
MW-12	4/6/2020 12:34	Temperature	21.88	C
MW-12	4/6/2020 12:34	Turbidity	18.2	NTU
MW-12	4/6/2020 12:39	Conductivity	3760.74	uS/cm
MW-12	4/6/2020 12:39	DO	0.62	mg/L
MW-12	4/6/2020 12:39	Depth to Water Detail	153.81	ft
MW-12	4/6/2020 12:39	Oxidation Reduction Potention	4.33	mv
MW-12	4/6/2020 12:39	pH	5.83	pH
MW-12	4/6/2020 12:39	Temperature	21.87	C
MW-12	4/6/2020 12:39	Turbidity	11.4	NTU
MW-12	4/6/2020 12:44	Conductivity	3779.14	uS/cm
MW-12	4/6/2020 12:44	DO	0.62	mg/L
MW-12	4/6/2020 12:44	Depth to Water Detail	153.81	ft
MW-12	4/6/2020 12:44	Oxidation Reduction Potention	6.9	mv
MW-12	4/6/2020 12:44	pH	5.82	pH
MW-12	4/6/2020 12:44	Temperature	21.88	C
MW-12	4/6/2020 12:44	Turbidity	8.14	NTU
MW-12	4/6/2020 12:49	Conductivity	3816.86	uS/cm
MW-12	4/6/2020 12:49	DO	0.6	mg/L
MW-12	4/6/2020 12:49	Depth to Water Detail	153.81	ft
MW-12	4/6/2020 12:49	Oxidation Reduction Potention	9.14	mv
MW-12	4/6/2020 12:49	pH	5.81	pH
MW-12	4/6/2020 12:49	Temperature	21.97	C
MW-12	4/6/2020 12:49	Turbidity	7.38	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-12V	4/6/2020 11:17	Conductivity	2738.18	uS/cm
MW-12V	4/6/2020 11:17	DO	0.72	mg/L
MW-12V	4/6/2020 11:17	Depth to Water Detail	154.44	ft
MW-12V	4/6/2020 11:17	Oxidation Reduction Potention	-71.01	mv
MW-12V	4/6/2020 11:17	pH	6.8	pH
MW-12V	4/6/2020 11:17	Temperature	21.62	C
MW-12V	4/6/2020 11:17	Turbidity	5.88	NTU
MW-12V	4/6/2020 11:22	Conductivity	2753.74	uS/cm
MW-12V	4/6/2020 11:22	DO	0.31	mg/L
MW-12V	4/6/2020 11:22	Depth to Water Detail	154.95	ft
MW-12V	4/6/2020 11:22	Oxidation Reduction Potention	-66.57	mv
MW-12V	4/6/2020 11:22	pH	6.79	pH
MW-12V	4/6/2020 11:22	Temperature	21.58	C
MW-12V	4/6/2020 11:22	Turbidity	5.95	NTU
MW-12V	4/6/2020 11:27	Conductivity	2750.76	uS/cm
MW-12V	4/6/2020 11:27	DO	0.31	mg/L
MW-12V	4/6/2020 11:27	Depth to Water Detail	155.31	ft
MW-12V	4/6/2020 11:27	Oxidation Reduction Potention	-64.23	mv
MW-12V	4/6/2020 11:27	pH	6.79	pH
MW-12V	4/6/2020 11:27	Temperature	21.48	C
MW-12V	4/6/2020 11:27	Turbidity	4.67	NTU
MW-12V	4/6/2020 11:32	Conductivity	2755.65	uS/cm
MW-12V	4/6/2020 11:32	DO	0.35	mg/L
MW-12V	4/6/2020 11:32	Depth to Water Detail	155.5	ft
MW-12V	4/6/2020 11:32	Oxidation Reduction Potention	-62.3	mv
MW-12V	4/6/2020 11:32	pH	6.79	pH
MW-12V	4/6/2020 11:32	Temperature	21.6	C
MW-12V	4/6/2020 11:32	Turbidity	3.06	NTU
MW-12V	4/6/2020 11:37	Conductivity	2748.22	uS/cm
MW-12V	4/6/2020 11:37	DO	0.4	mg/L
MW-12V	4/6/2020 11:37	Depth to Water Detail	155.64	ft
MW-12V	4/6/2020 11:37	Oxidation Reduction Potention	-60.04	mv
MW-12V	4/6/2020 11:37	pH	6.79	pH
MW-12V	4/6/2020 11:37	Temperature	21.53	C
MW-12V	4/6/2020 11:37	Turbidity	2.27	NTU
MW-12V	4/6/2020 11:42	Conductivity	2748.08	uS/cm
MW-12V	4/6/2020 11:42	DO	0.43	mg/L
MW-12V	4/6/2020 11:42	Depth to Water Detail	155.77	ft
MW-12V	4/6/2020 11:42	Oxidation Reduction Potention	-58.31	mv
MW-12V	4/6/2020 11:42	pH	6.79	pH
MW-12V	4/6/2020 11:42	Temperature	21.46	C
MW-12V	4/6/2020 11:42	Turbidity	2.08	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-13	4/7/2020 11:37	Conductivity	2520.78	uS/cm
MW-13	4/7/2020 11:37	DO	0.67	mg/L
MW-13	4/7/2020 11:37	Depth to Water Detail	94.81	ft
MW-13	4/7/2020 11:37	Oxidation Reduction Potention	64.61	mv
MW-13	4/7/2020 11:37	pH	6.47	pH
MW-13	4/7/2020 11:37	Temperature	19.99	C
MW-13	4/7/2020 11:37	Turbidity	7.03	NTU
MW-13	4/7/2020 11:42	Conductivity	2515.34	uS/cm
MW-13	4/7/2020 11:42	DO	0.35	mg/L
MW-13	4/7/2020 11:42	Depth to Water Detail	95.07	ft
MW-13	4/7/2020 11:42	Oxidation Reduction Potention	75.31	mv
MW-13	4/7/2020 11:42	pH	6.49	pH
MW-13	4/7/2020 11:42	Temperature	19.83	C
MW-13	4/7/2020 11:42	Turbidity	5.4	NTU
MW-13	4/7/2020 11:47	Conductivity	2482.78	uS/cm
MW-13	4/7/2020 11:47	DO	0.4	mg/L
MW-13	4/7/2020 11:47	Depth to Water Detail	95.22	ft
MW-13	4/7/2020 11:47	Oxidation Reduction Potention	80.91	mv
MW-13	4/7/2020 11:47	pH	6.5	pH
MW-13	4/7/2020 11:47	Temperature	19.72	C
MW-13	4/7/2020 11:47	Turbidity	3.65	NTU
MW-13	4/7/2020 11:52	Conductivity	2447.39	uS/cm
MW-13	4/7/2020 11:52	DO	0.68	mg/L
MW-13	4/7/2020 11:52	Depth to Water Detail	95.31	ft
MW-13	4/7/2020 11:52	Oxidation Reduction Potention	82.77	mv
MW-13	4/7/2020 11:52	pH	6.53	pH
MW-13	4/7/2020 11:52	Temperature	19.69	C
MW-13	4/7/2020 11:52	Turbidity	2.97	NTU
MW-13	4/7/2020 11:57	Conductivity	2448.71	uS/cm
MW-13	4/7/2020 11:57	DO	0.66	mg/L
MW-13	4/7/2020 11:57	Depth to Water Detail	95.44	ft
MW-13	4/7/2020 11:57	Oxidation Reduction Potention	84.6	mv
MW-13	4/7/2020 11:57	pH	6.53	pH
MW-13	4/7/2020 11:57	Temperature	19.68	C
MW-13	4/7/2020 11:57	Turbidity	2.24	NTU
MW-13	4/7/2020 12:02	Conductivity	2452.74	uS/cm
MW-13	4/7/2020 12:02	DO	0.56	mg/L
MW-13	4/7/2020 12:02	Depth to Water Detail	95.48	ft
MW-13	4/7/2020 12:02	Oxidation Reduction Potention	85.77	mv
MW-13	4/7/2020 12:02	pH	6.53	pH
MW-13	4/7/2020 12:02	Temperature	19.68	C
MW-13	4/7/2020 12:02	Turbidity	1.92	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-14	4/7/2020 9:33	Conductivity	2981.01	uS/cm
MW-14	4/7/2020 9:33	DO	0.51	mg/L
MW-14	4/7/2020 9:33	Depth to Water Detail	89.22	ft
MW-14	4/7/2020 9:33	Oxidation Reduction Potention	32.57	mv
MW-14	4/7/2020 9:33	pH	6.41	pH
MW-14	4/7/2020 9:33	Temperature	19.4	C
MW-14	4/7/2020 9:33	Turbidity	19.6	NTU
MW-14	4/7/2020 9:38	Conductivity	2989.33	uS/cm
MW-14	4/7/2020 9:38	DO	0.31	mg/L
MW-14	4/7/2020 9:38	Depth to Water Detail	89.22	ft
MW-14	4/7/2020 9:38	Oxidation Reduction Potention	35.94	mv
MW-14	4/7/2020 9:38	pH	6.41	pH
MW-14	4/7/2020 9:38	Temperature	19.4	C
MW-14	4/7/2020 9:38	Turbidity	13.1	NTU
MW-14	4/7/2020 9:43	Conductivity	2989.71	uS/cm
MW-14	4/7/2020 9:43	DO	0.26	mg/L
MW-14	4/7/2020 9:43	Depth to Water Detail	89.22	ft
MW-14	4/7/2020 9:43	Oxidation Reduction Potention	37.15	mv
MW-14	4/7/2020 9:43	pH	6.41	pH
MW-14	4/7/2020 9:43	Temperature	19.37	C
MW-14	4/7/2020 9:43	Turbidity	9.18	NTU
MW-14	4/7/2020 9:48	Conductivity	2983.96	uS/cm
MW-14	4/7/2020 9:48	DO	0.24	mg/L
MW-14	4/7/2020 9:48	Depth to Water Detail	89.22	ft
MW-14	4/7/2020 9:48	Oxidation Reduction Potention	36.97	mv
MW-14	4/7/2020 9:48	pH	6.41	pH
MW-14	4/7/2020 9:48	Temperature	19.35	C
MW-14	4/7/2020 9:48	Turbidity	5.64	NTU
MW-14	4/7/2020 9:53	Conductivity	2979.4	uS/cm
MW-14	4/7/2020 9:53	DO	0.23	mg/L
MW-14	4/7/2020 9:53	Depth to Water Detail	89.22	ft
MW-14	4/7/2020 9:53	Oxidation Reduction Potention	37.23	mv
MW-14	4/7/2020 9:53	pH	6.42	pH
MW-14	4/7/2020 9:53	Temperature	19.34	C
MW-14	4/7/2020 9:53	Turbidity	4.15	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-15	4/7/2020 10:41	Conductivity	2837.65	uS/cm
MW-15	4/7/2020 10:41	DO	0.24	mg/L
MW-15	4/7/2020 10:41	Depth to Water Detail	67.38	ft
MW-15	4/7/2020 10:41	Oxidation Reduction Potention	27.3	mv
MW-15	4/7/2020 10:41	pH	6.08	pH
MW-15	4/7/2020 10:41	Temperature	19.08	C
MW-15	4/7/2020 10:41	Turbidity	14.6	NTU
MW-15	4/7/2020 10:46	Conductivity	2773.77	uS/cm
MW-15	4/7/2020 10:46	DO	0.21	mg/L
MW-15	4/7/2020 10:46	Depth to Water Detail	67.42	ft
MW-15	4/7/2020 10:46	Oxidation Reduction Potention	30.75	mv
MW-15	4/7/2020 10:46	pH	6.08	pH
MW-15	4/7/2020 10:46	Temperature	19.27	C
MW-15	4/7/2020 10:46	Turbidity	17.3	NTU
MW-15	4/7/2020 10:51	Conductivity	2770.05	uS/cm
MW-15	4/7/2020 10:51	DO	0.2	mg/L
MW-15	4/7/2020 10:51	Depth to Water Detail	67.47	ft
MW-15	4/7/2020 10:51	Oxidation Reduction Potention	29.53	mv
MW-15	4/7/2020 10:51	pH	6.09	pH
MW-15	4/7/2020 10:51	Temperature	19.12	C
MW-15	4/7/2020 10:51	Turbidity	10.62	NTU
MW-15	4/7/2020 10:56	Conductivity	2774.3	uS/cm
MW-15	4/7/2020 10:56	DO	0.18	mg/L
MW-15	4/7/2020 10:56	Depth to Water Detail	67.5	ft
MW-15	4/7/2020 10:56	Oxidation Reduction Potention	28.38	mv
MW-15	4/7/2020 10:56	pH	6.1	pH
MW-15	4/7/2020 10:56	Temperature	19.21	C
MW-15	4/7/2020 10:56	Turbidity	7.35	NTU
MW-15	4/7/2020 11:01	Conductivity	2774.97	uS/cm
MW-15	4/7/2020 11:01	DO	0.18	mg/L
MW-15	4/7/2020 11:01	Depth to Water Detail	67.54	ft
MW-15	4/7/2020 11:01	Oxidation Reduction Potention	27.89	mv
MW-15	4/7/2020 11:01	pH	6.1	pH
MW-15	4/7/2020 11:01	Temperature	19.19	C
MW-15	4/7/2020 11:01	Turbidity	4.67	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-16	4/6/2020 15:31	Conductivity	2685.44	uS/cm
MW-16	4/6/2020 15:31	DO	0.29	mg/L
MW-16	4/6/2020 15:31	Depth to Water Detail	90.63	ft
MW-16	4/6/2020 15:31	Oxidation Reduction Potention	-5.23	mv
MW-16	4/6/2020 15:31	pH	6.34	pH
MW-16	4/6/2020 15:31	Temperature	20.24	C
MW-16	4/6/2020 15:31	Turbidity	0.83	NTU
MW-16	4/6/2020 15:36	Conductivity	2672.38	uS/cm
MW-16	4/6/2020 15:36	DO	0.24	mg/L
MW-16	4/6/2020 15:36	Depth to Water Detail	90.63	ft
MW-16	4/6/2020 15:36	Oxidation Reduction Potention	5.3	mv
MW-16	4/6/2020 15:36	pH	6.33	pH
MW-16	4/6/2020 15:36	Temperature	20.26	C
MW-16	4/6/2020 15:36	Turbidity	0.81	NTU
MW-16	4/6/2020 15:41	Conductivity	2669.69	uS/cm
MW-16	4/6/2020 15:41	DO	0.25	mg/L
MW-16	4/6/2020 15:41	Depth to Water Detail	90.63	ft
MW-16	4/6/2020 15:41	Oxidation Reduction Potention	6.37	mv
MW-16	4/6/2020 15:41	pH	6.35	pH
MW-16	4/6/2020 15:41	Temperature	20.28	C
MW-16	4/6/2020 15:41	Turbidity	0.79	NTU
MW-16	4/6/2020 15:46	Conductivity	2656.67	uS/cm
MW-16	4/6/2020 15:46	DO	0.38	mg/L
MW-16	4/6/2020 15:46	Depth to Water Detail	90.63	ft
MW-16	4/6/2020 15:46	Oxidation Reduction Potention	7.9	mv
MW-16	4/6/2020 15:46	pH	6.37	pH
MW-16	4/6/2020 15:46	Temperature	20.29	C
MW-16	4/6/2020 15:46	Turbidity	0.67	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-17R	4/7/2020 8:31	Conductivity	3701.78	uS/cm
MW-17R	4/7/2020 8:31	DO	1.57	mg/L
MW-17R	4/7/2020 8:31	Depth to Water Detail	125.98	ft
MW-17R	4/7/2020 8:31	Oxidation Reduction Potention	9.22	mv
MW-17R	4/7/2020 8:31	pH	5.75	pH
MW-17R	4/7/2020 8:31	Temperature	21.12	C
MW-17R	4/7/2020 8:31	Turbidity	2.17	NTU
MW-17R	4/7/2020 8:36	Conductivity	3697.61	uS/cm
MW-17R	4/7/2020 8:36	DO	0.69	mg/L
MW-17R	4/7/2020 8:36	Depth to Water Detail	125.98	ft
MW-17R	4/7/2020 8:36	Oxidation Reduction Potention	8.17	mv
MW-17R	4/7/2020 8:36	pH	5.79	pH
MW-17R	4/7/2020 8:36	Temperature	21.18	C
MW-17R	4/7/2020 8:36	Turbidity	1.76	NTU
MW-17R	4/7/2020 8:41	Conductivity	3698.55	uS/cm
MW-17R	4/7/2020 8:41	DO	0.55	mg/L
MW-17R	4/7/2020 8:41	Depth to Water Detail	125.98	ft
MW-17R	4/7/2020 8:41	Oxidation Reduction Potention	7.08	mv
MW-17R	4/7/2020 8:41	pH	5.86	pH
MW-17R	4/7/2020 8:41	Temperature	21.25	C
MW-17R	4/7/2020 8:41	Turbidity	1.7	NTU
MW-17R	4/7/2020 8:46	Conductivity	3700.94	uS/cm
MW-17R	4/7/2020 8:46	DO	0.51	mg/L
MW-17R	4/7/2020 8:46	Depth to Water Detail	125.98	ft
MW-17R	4/7/2020 8:46	Oxidation Reduction Potention	6.52	mv
MW-17R	4/7/2020 8:46	pH	5.92	pH
MW-17R	4/7/2020 8:46	Temperature	21.23	C
MW-17R	4/7/2020 8:46	Turbidity	1.59	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-18	4/8/2020 8:01	Conductivity	2806.79	uS/cm
MW-18	4/8/2020 8:01	DO	3.95	mg/L
MW-18	4/8/2020 8:01	Depth to Water Detail	110.66	ft
MW-18	4/8/2020 8:01	Oxidation Reduction Potention	200.1	mv
MW-18	4/8/2020 8:01	pH	6.61	pH
MW-18	4/8/2020 8:01	Temperature	19.77	C
MW-18	4/8/2020 8:01	Turbidity	1.45	NTU
MW-18	4/8/2020 8:06	Conductivity	2783.08	uS/cm
MW-18	4/8/2020 8:06	DO	3.35	mg/L
MW-18	4/8/2020 8:06	Depth to Water Detail	110.66	ft
MW-18	4/8/2020 8:06	Oxidation Reduction Potention	193.98	mv
MW-18	4/8/2020 8:06	pH	6.58	pH
MW-18	4/8/2020 8:06	Temperature	19.81	C
MW-18	4/8/2020 8:06	Turbidity	1.58	NTU
MW-18	4/8/2020 8:11	Conductivity	2777	uS/cm
MW-18	4/8/2020 8:11	DO	3.22	mg/L
MW-18	4/8/2020 8:11	Depth to Water Detail	110.66	ft
MW-18	4/8/2020 8:11	Oxidation Reduction Potention	190	mv
MW-18	4/8/2020 8:11	pH	6.58	pH
MW-18	4/8/2020 8:11	Temperature	19.89	C
MW-18	4/8/2020 8:11	Turbidity	1.48	NTU
MW-18	4/8/2020 8:16	Conductivity	2774.54	uS/cm
MW-18	4/8/2020 8:16	DO	3.21	mg/L
MW-18	4/8/2020 8:16	Depth to Water Detail	110.66	ft
MW-18	4/8/2020 8:16	Oxidation Reduction Potention	187.76	mv
MW-18	4/8/2020 8:16	pH	6.57	pH
MW-18	4/8/2020 8:16	Temperature	19.89	C
MW-18	4/8/2020 8:16	Turbidity	1.42	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-19	4/8/2020 9:07	Conductivity	2858.59	uS/cm
MW-19	4/8/2020 9:07	DO	0.41	mg/L
MW-19	4/8/2020 9:07	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:07	Oxidation Reduction Potention	87.96	mv
MW-19	4/8/2020 9:07	pH	6.27	pH
MW-19	4/8/2020 9:07	Temperature	19.62	C
MW-19	4/8/2020 9:07	Turbidity	1369	NTU
MW-19	4/8/2020 9:12	Conductivity	2866.95	uS/cm
MW-19	4/8/2020 9:12	DO	0.28	mg/L
MW-19	4/8/2020 9:12	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:12	Oxidation Reduction Potention	80.9	mv
MW-19	4/8/2020 9:12	pH	6.26	pH
MW-19	4/8/2020 9:12	Temperature	19.6	C
MW-19	4/8/2020 9:12	Turbidity	82.8	NTU
MW-19	4/8/2020 9:17	Conductivity	2868.48	uS/cm
MW-19	4/8/2020 9:17	DO	0.25	mg/L
MW-19	4/8/2020 9:17	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:17	Oxidation Reduction Potention	74.24	mv
MW-19	4/8/2020 9:17	pH	6.26	pH
MW-19	4/8/2020 9:17	Temperature	19.57	C
MW-19	4/8/2020 9:17	Turbidity	51.8	NTU
MW-19	4/8/2020 9:22	Conductivity	2872.65	uS/cm
MW-19	4/8/2020 9:22	DO	0.22	mg/L
MW-19	4/8/2020 9:22	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:22	Oxidation Reduction Potention	73.17	mv
MW-19	4/8/2020 9:22	pH	6.27	pH
MW-19	4/8/2020 9:22	Temperature	19.6	C
MW-19	4/8/2020 9:22	Turbidity	31.1	NTU
MW-19	4/8/2020 9:27	Conductivity	2872.48	uS/cm
MW-19	4/8/2020 9:27	DO	0.21	mg/L
MW-19	4/8/2020 9:27	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:27	Oxidation Reduction Potention	73.4	mv
MW-19	4/8/2020 9:27	pH	6.26	pH
MW-19	4/8/2020 9:27	Temperature	19.57	C
MW-19	4/8/2020 9:27	Turbidity	24	NTU
MW-19	4/8/2020 9:32	Conductivity	2875.58	uS/cm
MW-19	4/8/2020 9:32	DO	0.2	mg/L
MW-19	4/8/2020 9:32	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:32	Oxidation Reduction Potention	73.26	mv
MW-19	4/8/2020 9:32	pH	6.27	pH
MW-19	4/8/2020 9:32	Temperature	19.64	C
MW-19	4/8/2020 9:32	Turbidity	18	NTU
MW-19	4/8/2020 9:37	Conductivity	2831.35	uS/cm
MW-19	4/8/2020 9:37	DO	0.23	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-19	4/8/2020 9:37	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:37	Oxidation Reduction Potention	74.16	mv
MW-19	4/8/2020 9:37	pH	6.26	pH
MW-19	4/8/2020 9:37	Temperature	19.67	C
MW-19	4/8/2020 9:37	Turbidity	13.4	NTU
MW-19	4/8/2020 9:42	Conductivity	2839.08	uS/cm
MW-19	4/8/2020 9:42	DO	0.22	mg/L
MW-19	4/8/2020 9:42	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:42	Oxidation Reduction Potention	74.85	mv
MW-19	4/8/2020 9:42	pH	6.27	pH
MW-19	4/8/2020 9:42	Temperature	19.65	C
MW-19	4/8/2020 9:42	Turbidity	11	NTU
MW-19	4/8/2020 9:47	Conductivity	2837.17	uS/cm
MW-19	4/8/2020 9:47	DO	0.22	mg/L
MW-19	4/8/2020 9:47	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:47	Oxidation Reduction Potention	75.5	mv
MW-19	4/8/2020 9:47	pH	6.27	pH
MW-19	4/8/2020 9:47	Temperature	19.64	C
MW-19	4/8/2020 9:47	Turbidity	9.04	NTU
MW-19	4/8/2020 9:52	Conductivity	2828.49	uS/cm
MW-19	4/8/2020 9:52	DO	0.23	mg/L
MW-19	4/8/2020 9:52	Depth to Water Detail	78.54	ft
MW-19	4/8/2020 9:52	Oxidation Reduction Potention	76.17	mv
MW-19	4/8/2020 9:52	pH	6.26	pH
MW-19	4/8/2020 9:52	Temperature	19.6	C
MW-19	4/8/2020 9:52	Turbidity	7.33	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-20	4/8/2020 10:28	Conductivity	2863	uS/cm
MW-20	4/8/2020 10:28	DO	0.89	mg/L
MW-20	4/8/2020 10:28	Depth to Water Detail	22.05	ft
MW-20	4/8/2020 10:28	Oxidation Reduction Potention	-40.38	mv
MW-20	4/8/2020 10:28	pH	6.82	pH
MW-20	4/8/2020 10:28	Temperature	19.64	C
MW-20	4/8/2020 10:28	Turbidity	3.01	NTU
MW-20	4/8/2020 10:33	Conductivity	2866.42	uS/cm
MW-20	4/8/2020 10:33	DO	0.56	mg/L
MW-20	4/8/2020 10:33	Depth to Water Detail	22.05	ft
MW-20	4/8/2020 10:33	Oxidation Reduction Potention	-43.87	mv
MW-20	4/8/2020 10:33	pH	6.82	pH
MW-20	4/8/2020 10:33	Temperature	19.72	C
MW-20	4/8/2020 10:33	Turbidity	2.57	NTU
MW-20	4/8/2020 10:38	Conductivity	2860.35	uS/cm
MW-20	4/8/2020 10:38	DO	0.45	mg/L
MW-20	4/8/2020 10:38	Depth to Water Detail	22.05	ft
MW-20	4/8/2020 10:38	Oxidation Reduction Potention	-46.2	mv
MW-20	4/8/2020 10:38	pH	6.82	pH
MW-20	4/8/2020 10:38	Temperature	19.96	C
MW-20	4/8/2020 10:38	Turbidity	1.08	NTU
MW-20	4/8/2020 10:43	Conductivity	2852.92	uS/cm
MW-20	4/8/2020 10:43	DO	0.37	mg/L
MW-20	4/8/2020 10:43	Depth to Water Detail	22.05	ft
MW-20	4/8/2020 10:43	Oxidation Reduction Potention	-47.45	mv
MW-20	4/8/2020 10:43	pH	6.81	pH
MW-20	4/8/2020 10:43	Temperature	20.06	C
MW-20	4/8/2020 10:43	Turbidity	0.96	NTU

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative

Plant Gorgas Landfill

2020 Compliance Event 2

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Suspected iron bacteria appeared to be present during initial purge of MW-19.

Heavy truck traffic was present when pumping and sampling wells MW-7 and MW-10.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verifications for all required field parameters were performed daily, before and after sample collection.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWGORLF_1286

Project/Site : Gorgas Landfill
Parrish, AL 35580

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Laura Midkiff
lbmidkif@southernco.co
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Alabama Power

August 14, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on July 15, 2020.
All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2021

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

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.08.14 16:07:26 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.08.19 11:02:39 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

**This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.**

Alabama Power Lab & Field SERVICES

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICP

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	677034	WMWGORLF_1286
BA12977	677034	WMWGORLF_1286
BA12978	677034	WMWGORLF_1286
BA12979	677034	WMWGORLF_1286
BA12980	677034	WMWGORLF_1286
BA12981	677034	WMWGORLF_1286
BA12982	677034	WMWGORLF_1286
BA12983	677034	WMWGORLF_1286
BA12984	677034	WMWGORLF_1286
BA12985	677034	WMWGORLF_1286
BA12986	677035	WMWGORLF_1286
BA12987	677035	WMWGORLF_1286
BA12988	677035	WMWGORLF_1286
BA12989	677035	WMWGORLF_1286
BA12990	677035	WMWGORLF_1286
BA12991	677035	WMWGORLF_1286
BA12992	677035	WMWGORLF_1286
BA12993	677035	WMWGORLF_1286
BA12994	677035	WMWGORLF_1286
BA12995	677035	WMWGORLF_1286
BA12996	677036	WMWGORLF_1286
BA12997	677036	WMWGORLF_1286
BA12998	677036	WMWGORLF_1286
BA12999	677036	WMWGORLF_1286
BA13000	677036	WMWGORLF_1286

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met, except for the following:
    - BA12985 and BA12995 MS/MSD failed recovery for Lithium. The serial dilutions and post digestion spike analyses showed matrix interferences at 1.015 dilution.
    - BA12985 and BA12995 MS/MSD spike levels for calcium, iron, and magnesium are less than 30% of the sample nominal concentrations.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA12976	Calcium, Iron, Magnesium, Sodium	50.75
BA12977	Calcium, Magnesium, Sodium	50.75
BA12977	Iron	101.5
BA12978	Calcium, Iron, Magnesium, Sodium	50.75
BA12980	Calcium, Magnesium	20.3
BA12981	Calcium, Magnesium	20.3
BA12982	Calcium, Magnesium	20.3
BA12983	Calcium, Iron, Magnesium	20.3
BA12984	Calcium, Magnesium	20.3
BA12985	Calcium, Iron, Magnesium, Sodium	20.3
BA12986	Calcium, Magnesium	20.3
BA12987	Calcium, Magnesium	20.3
BA12989	Calcium, Magnesium	20.3
BA12990	Calcium, Magnesium	20.3
BA12991	Calcium, Magnesium	20.3
BA12992	Calcium, Iron, Magnesium, Sodium	20.3
BA12993	Calcium, Magnesium, Sodium	20.3
BA12994	Calcium, Magnesium	20.3
BA12995	Calcium, Iron, Magnesium, Sodium	20.3
BA12996	Calcium, Magnesium	20.3
BA12997	Calcium, Iron, Magnesium, Sodium	20.3
BA12998	Calcium, Magnesium, Sodium	20.3
BA12999	Calcium, Iron, Magnesium, Sodium	20.3

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICP

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	677192	WMWGORLF_1286
BA12977	677192	WMWGORLF_1286
BA12978	677192	WMWGORLF_1286
BA12980	677192	WMWGORLF_1286
BA12981	677192	WMWGORLF_1286
BA12982	677192	WMWGORLF_1286
BA12983	677192	WMWGORLF_1286
BA12984	677192	WMWGORLF_1286
BA12985	677192	WMWGORLF_1286
BA12986	677192	WMWGORLF_1286
BA12987	677193	WMWGORLF_1286
BA12989	677193	WMWGORLF_1286
BA12990	677193	WMWGORLF_1286
BA12991	677193	WMWGORLF_1286
BA12992	677193	WMWGORLF_1286
BA12993	677193	WMWGORLF_1286
BA12994	677193	WMWGORLF_1286
BA12995	677193	WMWGORLF_1286
BA12996	677193	WMWGORLF_1286
BA12997	677193	WMWGORLF_1286
BA12998	677194	WMWGORLF_1286
BA12999	677194	WMWGORLF_1286

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met, except for the following:
    - BA12997 and BA12999 MS/MSD spike levels for iron are less than 30% of the sample nominal concentrations.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA12976	Iron	10.15
BA12977	Iron	101.5
BA12978	Iron	10.15
BA12983	Iron	10.15
BA12985	Iron	10.15
BA12992	Iron	10.15
BA12995	Iron	10.15
BA12997	Iron	10.15
BA12999	Iron	10.15

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICPMS

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	677906	WMWGORLF_1286
BA12977	677906	WMWGORLF_1286
BA12978	677906	WMWGORLF_1286
BA12979	677906	WMWGORLF_1286
BA12980	677906	WMWGORLF_1286
BA12981	677906	WMWGORLF_1286
BA12982	677906	WMWGORLF_1286
BA12983	677906	WMWGORLF_1286
BA12984	677906	WMWGORLF_1286
BA12985	677906	WMWGORLF_1286
BA12986	677907	WMWGORLF_1286
BA12987	677907	WMWGORLF_1286
BA12988	677907	WMWGORLF_1286
BA12989	677907	WMWGORLF_1286
BA12990	677907	WMWGORLF_1286
BA12991	677907	WMWGORLF_1286
BA12992	677907	WMWGORLF_1286
BA12993	677907	WMWGORLF_1286
BA12994	677907	WMWGORLF_1286
BA12995	677907	WMWGORLF_1286
BA12996	677908	WMWGORLF_1286
BA12997	677908	WMWGORLF_1286
BA12998	677908	WMWGORLF_1286
BA12999	677908	WMWGORLF_1286
BA13000	677908	WMWGORLF_1286

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
    - BA12985 and BA12995 MS/MSD spike levels for manganese are less than 30% of the sample nominal concentration.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA12977	Mn	92.365
BA12980	Mn	10.15
BA12981	Mn	5.075
BA12982	Mn	5.075
BA12983	Mn	10.15
BA12984	Mn	5.075
BA12985	Mn	92.365
BA12989	Mn	10.15
BA12990	Mn	10.15
BA12991	Mn	10.15
BA12992	Mn	10.15
BA12995	Mn	10.15
BA12996	Mn	5.075
BA12997	Mn	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	677850	WMWGORLF_1286
BA12977	677850	WMWGORLF_1286
BA12978	677850	WMWGORLF_1286
BA12980	677850	WMWGORLF_1286
BA12981	677850	WMWGORLF_1286
BA12982	677850	WMWGORLF_1286
BA12983	677850	WMWGORLF_1286
BA12984	677850	WMWGORLF_1286
BA12985	677850	WMWGORLF_1286
BA12986	677850	WMWGORLF_1286
BA12987	677851	WMWGORLF_1286
BA12989	677851	WMWGORLF_1286
BA12990	677851	WMWGORLF_1286
BA12991	677851	WMWGORLF_1286
BA12992	677851	WMWGORLF_1286
BA12993	677851	WMWGORLF_1286
BA12994	677851	WMWGORLF_1286
BA12995	677851	WMWGORLF_1286
BA12996	677851	WMWGORLF_1286
BA12997	677851	WMWGORLF_1286
BA12998	677852	WMWGORLF_1286
BA12999	677852	WMWGORLF_1286

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
    - BA12997 MS/MSD spike level for manganese is less than 30% of the sample nominal concentration.
- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA12976	Mn	5.075
BA12977	Mn	92.365
BA12980	Mn	10.15
BA12981	Mn	5.075
BA12982	Mn	5.075
BA12983	Mn	92.365
BA12984	Mn	5.075
BA12985	Mn	92.365
BA12989	Mn	10.15
BA12990	Mn	10.15
BA12991	Mn	10.15
BA12992	Mn	10.15
BA12995	Mn	92.365
BA12996	Mn	5.075
BA12997	Mn	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Mercury

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	677074	WMWGORLF_1286
BA12977	677074	WMWGORLF_1286
BA12978	677074	WMWGORLF_1286
BA12979	677074	WMWGORLF_1286
BA12980	677074	WMWGORLF_1286
BA12981	677074	WMWGORLF_1286
BA12982	677074	WMWGORLF_1286
BA12983	677074	WMWGORLF_1286
BA12984	677074	WMWGORLF_1286
BA12985	677074	WMWGORLF_1286
BA12986	677075	WMWGORLF_1286
BA12987	677075	WMWGORLF_1286
BA12988	677075	WMWGORLF_1286
BA12989	677075	WMWGORLF_1286
BA12990	677075	WMWGORLF_1286
BA12991	677075	WMWGORLF_1286
BA12992	677075	WMWGORLF_1286
BA12993	677075	WMWGORLF_1286
BA12994	677075	WMWGORLF_1286
BA12995	677075	WMWGORLF_1286
BA12996	677076	WMWGORLF_1286
BA12997	677076	WMWGORLF_1286
BA12998	677076	WMWGORLF_1286
BA12999	677076	WMWGORLF_1286
BA13000	677076	WMWGORLF_1286

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

TDS

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	676977	WMWGORLF_1286
BA12977	676977	WMWGORLF_1286
BA12978	676977	WMWGORLF_1286
BA12979	676977	WMWGORLF_1286
BA12980	676978	WMWGORLF_1286
BA12981	676978	WMWGORLF_1286
BA12982	676978	WMWGORLF_1286
BA12983	676978	WMWGORLF_1286
BA12984	677080	WMWGORLF_1286
BA12985	677080	WMWGORLF_1286
BA12986	677080	WMWGORLF_1286
BA12987	677080	WMWGORLF_1286
BA12988	677080	WMWGORLF_1286
BA12989	676978	WMWGORLF_1286
BA12990	676978	WMWGORLF_1286
BA12991	676978	WMWGORLF_1286
BA12992	676978	WMWGORLF_1286
BA12993	676978	WMWGORLF_1286
BA12994	676978	WMWGORLF_1286
BA12995	677080	WMWGORLF_1286
BA12996	677080	WMWGORLF_1286
BA12997	677080	WMWGORLF_1286
BA12998	677080	WMWGORLF_1286
BA12999	677081	WMWGORLF_1286
BA13000	677080	WMWGORLF_1286

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
    - BA12979
    - BA12988
    - BA13000

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Anions

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	677213, 677216, & 677401	WMWGORLF_1286
BA12977	677213, 677216, & 677401	WMWGORLF_1286
BA12978	677213, 677216, & 677401	WMWGORLF_1286
BA12979	677213, 677216, & 677401	WMWGORLF_1286
BA12980	677213, 677216, & 677401	WMWGORLF_1286
BA12981	677213, 677216, & 677401	WMWGORLF_1286
BA12982	677213, 677216, & 677401	WMWGORLF_1286
BA12983	677213, 677216, & 677401	WMWGORLF_1286
BA12984	677213, 677216, & 677401	WMWGORLF_1286
BA12985	677213, 677216, & 677401	WMWGORLF_1286
BA12986	677214, 677217, & 677402	WMWGORLF_1286
BA12987	677214, 677217, & 677402	WMWGORLF_1286
BA12988	677214, 677217, & 677402	WMWGORLF_1286
BA12989	677214, 677217, & 677402	WMWGORLF_1286
BA12990	677214, 677217, & 677402	WMWGORLF_1286
BA12991	677214, 677217, & 677402	WMWGORLF_1286
BA12992	677214, 677217, & 677402	WMWGORLF_1286
BA12993	677214, 677217, & 677402	WMWGORLF_1286
BA12994	677214, 677217, & 677402	WMWGORLF_1286
BA12995	677214, 677217, & 677402	WMWGORLF_1286
BA12996	677215, 677218, & 677403	WMWGORLF_1286
BA12997	677215, 677218, & 677403	WMWGORLF_1286
BA12998	677215, 677218, & 677403	WMWGORLF_1286
BA12999	677215, 677218, & 677403	WMWGORLF_1286
BA13000	677215, 677218, & 677403	WMWGORLF_1286

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA12976	Chloride & Sulfate	8 & 50
BA12977	Sulfate	100
BA12978	Chloride & Sulfate	8 & 50
BA12980	Sulfate	80
BA12981	Sulfate	80
BA12982	Sulfate	80
BA12983	Sulfate	80
BA12984	Sulfate	50
BA12985	Sulfate	160
BA12986	Sulfate	80
BA12987	Sulfate	80
BA12989	Sulfate	50
BA12990	Sulfate	50
BA12991	Sulfate	40
BA12992	Sulfate	100
BA12993	Sulfate	100
BA12994	Sulfate	100
BA12995	Sulfate	160
BA12996	Sulfate	80
BA12997	Sulfate	80
BA12998	Chloride & Sulfate	2 & 80
BA12999	Chloride & Sulfate	10 & 80

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Alkalinity

Gorgas Landfill

WMWGORLF_1286

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA12976	677601 & 677602	WMWGORLF_1286
BA12977	677601 & 677602	WMWGORLF_1286
BA12978	677601 & 677602	WMWGORLF_1286
BA12980	677601 & 677602	WMWGORLF_1286
BA12981	677601 & 677602	WMWGORLF_1286
BA12982	677601 & 677602	WMWGORLF_1286
BA12983	677601 & 677602	WMWGORLF_1286
BA12984	677601 & 677602	WMWGORLF_1286
BA12985	677601 & 677602	WMWGORLF_1286
BA12986	677601 & 677602	WMWGORLF_1286
BA12987	677601 & 677602	WMWGORLF_1286
BA12989	677601 & 677602	WMWGORLF_1286
BA12990	677601 & 677602	WMWGORLF_1286
BA12991	677601 & 677602	WMWGORLF_1286
BA12992	677601 & 677602	WMWGORLF_1286
BA12993	677601 & 677602	WMWGORLF_1286
BA12994	677601 & 677602	WMWGORLF_1286
BA12995	677601 & 677602	WMWGORLF_1286
BA12996	677601 & 677602	WMWGORLF_1286
BA12997	677601 & 677602	WMWGORLF_1286
BA12998	677603 & 677604	WMWGORLF_1286
BA12999	677603 & 677604	WMWGORLF_1286

4. All of the above samples were analyzed by Standard Method 2320B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF
Collected: 7/13/20 13:08
Customer ID:
Submittal Date: 7/15/20 14:02

Laboratory ID Number: BA12976

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:03		1.015	0.111	mg/L	0.03	0.1	
* Calcium, Total	7/17/20 09:14	7/20/20 11:01		50.75	350	mg/L	5.075	25.375	
* Iron, Total	7/17/20 09:14	7/20/20 11:01		50.75	4.67	mg/L	1.015	2.5375	
* Lithium, Total	7/17/20 09:14	7/20/20 10:03		1.015	0.277	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:01		50.75	175	mg/L	5.075	25.375	
* Sodium, Total	7/17/20 09:14	7/20/20 11:01		50.75	146	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:03		10.15	5.34	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 15:29		1.015	0.0149	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:29		1.015	6.40	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 15:29		1.015	1.26	mg/L	0.001	0.005	
* Selenium, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:29		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:17		5.075	1.52	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	291	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	2400	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF
Collected: 7/13/20 13:08
Customer ID:
Submittal Date: 7/15/20 14:02

Laboratory ID Number: BA12976

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	291	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.23	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:36	7/21/20 10:36		8	79.6	mg/L	4.00	8	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:37	7/21/20 12:37		1	0.108	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:07	7/22/20 11:07		50	1300	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/13/20 13:05	7/13/20 13:05			2712.32	uS/cm			FA
pH	7/13/20 13:05	7/13/20 13:05			6.71	SU			FA
Temperature	7/13/20 13:05	7/13/20 13:05			24.28	C			FA
Turbidity	7/13/20 13:05	7/13/20 13:05			0.39	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/13/20 13:08
Customer ID:
Delivery Date: 7/15/20 14:02

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BA12976

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/13/20 13:08
Customer ID:
Delivery Date: 7/15/20 14:02

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BA12976

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20
BA12978	Solids, Dissolved	mg/L	2.00	25			2300	51.0	40 to 60			1.32	5
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 7/13/20 14:23
Customer ID:
Submittal Date: 7/15/20 14:02

Laboratory ID Number: BA12977

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:06		1.015	0.266	mg/L	0.03	0.1	
* Calcium, Total	7/17/20 09:14	7/20/20 11:04		50.75	392	mg/L	5.075	25.375	
* Iron, Total	7/17/20 09:14	7/21/20 11:04		101.5	224	mg/L	2.03	5.075	
* Lithium, Total	7/17/20 09:14	7/20/20 10:06		1.015	0.0784	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:04		50.75	434	mg/L	5.075	25.375	
* Sodium, Total	7/17/20 09:14	7/20/20 11:04		50.75	49.0	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:06		101.5	239	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:31		1.015	0.0613	mg/L	0.001	0.005	
* Barium, Total	7/16/20 08:00	7/16/20 15:31		1.015	0.0124	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:31		1.015	0.0515	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:31		1.015	23.8	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/28/20 13:45		92.365	27.3	mg/L	0.092365	0.461825	
* Selenium, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:31		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:20		92.365	27.8	mg/L	0.092365	0.461825	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	230	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	4460	mg/L		250	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 7/13/20 14:23
Customer ID:
Submittal Date: 7/15/20 14:02

Laboratory ID Number: BA12977

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	230	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.02	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:38	7/21/20 10:38		1	8.35	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:38	7/21/20 12:38		1	0.161	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:09	7/22/20 11:09		100	2610	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/13/20 14:19	7/13/20 14:19			2898.24	uS/cm			FA
pH	7/13/20 14:19	7/13/20 14:19			5.62	SU			FA
Temperature	7/13/20 14:19	7/13/20 14:19			23.17	C			FA
Turbidity	7/13/20 14:19	7/13/20 14:19			3.89	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/13/20 14:23
Customer ID:
Delivery Date: 7/15/20 14:02

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BA12977

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/13/20 14:23
Customer ID:
Delivery Date: 7/15/20 14:02

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BA12977

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20
BA12978	Solids, Dissolved	mg/L	2.00	25			2300	51.0	40 to 60			1.32	5
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 7/13/20 15:35
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12978

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:09		1.015	0.150	mg/L	0.03	0.1	
* Calcium, Total	7/17/20 09:14	7/20/20 11:07		50.75	305	mg/L	5.075	25.375	
* Iron, Total	7/17/20 09:14	7/20/20 11:07		50.75	4.05	mg/L	1.015	2.5375	
* Lithium, Total	7/17/20 09:14	7/20/20 10:09		1.015	0.294	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:07		50.75	200	mg/L	5.075	25.375	
* Sodium, Total	7/17/20 09:14	7/20/20 11:07		50.75	93.2	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:09		10.15	4.36	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:34		1.015	0.00710	mg/L	0.001	0.005	
* Barium, Total	7/16/20 08:00	7/16/20 15:34		1.015	0.0190	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:34		1.015	6.87	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/28/20 13:48		1.015	0.555	mg/L	0.001	0.005	
* Selenium, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:22		1.015	0.562	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	295	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	2240	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 7/13/20 15:35
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12978

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	295	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.24	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:46	7/21/20 10:46		8	70.1	mg/L	4.00	8	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:39	7/21/20 12:39		1	0.166	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:10	7/22/20 11:10		50	1280	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/13/20 15:31	7/13/20 15:31			2590.28	uS/cm			FA
pH	7/13/20 15:31	7/13/20 15:31			6.61	SU			FA
Temperature	7/13/20 15:31	7/13/20 15:31			22.38	C			FA
Turbidity	7/13/20 15:31	7/13/20 15:31			0.78	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/13/20 15:35
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BA12978

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/13/20 15:35
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BA12978

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20
BA12978	Solids, Dissolved	mg/L	2.00	25			2300	51.0	40 to 60			1.32	5
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Field Blank-1

Location Code: WMWGORLFFB
Collected: 7/13/20 16:05
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12979

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:12		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	7/17/20 09:14	7/20/20 10:12		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	7/17/20 09:14	7/20/20 10:12		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	7/17/20 09:14	7/20/20 10:12		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	7/17/20 09:14	7/20/20 10:12		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	7/17/20 09:14	7/20/20 10:12		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:40	7/21/20 10:40		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:40	7/21/20 12:40		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:11	7/22/20 11:11		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFFB
Sample Date: 7/13/20 16:05
Customer ID:
Delivery Date: 7/15/20 14:03

Description:Gorgas Landfill Field Blank-1

Laboratory ID Number: BA12979

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20

Comments:

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFFB
Sample Date: 7/13/20 16:05
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill Field Blank-1

Laboratory ID Number: BA12979

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20
BA12978	Solids, Dissolved	mg/L	2.00	25			2300	51.0	40 to 60			1.32	5
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 7/14/20 08:14
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12980

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:15		1.015	0.0573	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:10		20.3	291	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:15		1.015	0.328	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 10:15		1.015	0.0170	mg/L	0.01	0.02	J
* Magnesium, Total	7/17/20 09:14	7/20/20 11:10		20.3	343	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:15		1.015	35.7	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 11:28		1.015	0.276	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 15:39		1.015	0.0142	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:39		1.015	0.0143	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:39		1.015	8.96	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:21		10.15	7.62	mg/L	0.01015	0.05075	
* Selenium, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:39		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:25		10.15	8.10	mg/L	0.01015	0.05075	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	247	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	2860	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 7/14/20 08:14
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12980

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	247	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.10	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:41	7/21/20 10:41		1	1.90	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:42	7/21/20 12:42		1	0.174	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:12	7/22/20 11:12		80	1740	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/14/20 08:10	7/14/20 08:10			2908.55	uS/cm			FA
pH	7/14/20 08:10	7/14/20 08:10			6.33	SU			FA
Temperature	7/14/20 08:10	7/14/20 08:10			20.66	C			FA
Turbidity	7/14/20 08:10	7/14/20 08:10			0.81	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 08:14
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BA12980

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 08:14
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BA12980

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 7/14/20 09:14
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12981

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:18		1.015	0.0492	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:13		20.3	332	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:18		1.015	1.67	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 10:18		1.015	0.0384	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:13		20.3	373	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:18		1.015	33.0	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 11:30		1.015	1.57	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 15:42		1.015	0.0127	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:42		1.015	0.00839	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:42		1.015	8.52	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:24		5.075	2.24	mg/L	0.005075	0.025375	
* Selenium, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:42		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:27		5.075	2.28	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	262	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	3160	mg/L		178.6	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 7/14/20 09:14
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12981

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	262	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.12	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:42	7/21/20 10:42		1	1.73	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:43	7/21/20 12:43		1	0.227	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:13	7/22/20 11:13		80	1840	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/14/20 09:11	7/14/20 09:11			3090.49	uS/cm			FA
pH	7/14/20 09:11	7/14/20 09:11			6.37	SU			FA
Temperature	7/14/20 09:11	7/14/20 09:11			20.25	C			FA
Turbidity	7/14/20 09:11	7/14/20 09:11			0.95	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 09:14
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BA12981

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 09:14
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BA12981

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-14 DUP

Location Code: WMWGORLF
Collected: 7/14/20 09:14
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12982

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:21		1.015	0.0495	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:16		20.3	333	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:21		1.015	1.71	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 10:21		1.015	0.0386	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:16		20.3	374	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:21		1.015	32.9	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 11:33		1.015	1.59	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:44		1.015	0.00102	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 15:44		1.015	0.0125	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:44		1.015	0.00836	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:44		1.015	8.37	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:27		5.075	2.29	mg/L	0.005075	0.025375	
* Selenium, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:44		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:30		5.075	2.31	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	260	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	3170	mg/L		178.6	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-14 DUP

Location Code: WMWGORLF
Collected: 7/14/20 09:14
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12982

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	260	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.10	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:44	7/21/20 10:44		1	1.72	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:44	7/21/20 12:44		1	0.221	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:15	7/22/20 11:15		80	1910	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/14/20 09:11	7/14/20 09:11			3090.49	uS/cm			FA
pH	7/14/20 09:11	7/14/20 09:11			6.37	SU			FA
Temperature	7/14/20 09:11	7/14/20 09:11			20.25	C			FA
Turbidity	7/14/20 09:11	7/14/20 09:11			0.95	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 09:14
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-14 DUP

Laboratory ID Number: BA12982

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 09:14
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-14 DUP

Laboratory ID Number: BA12982

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 7/14/20 10:23
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12983

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:24		1.015	0.0557	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:19		20.3	281	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 11:19		20.3	19.3	mg/L	0.406	1.015	
* Lithium, Total	7/17/20 09:14	7/20/20 10:24		1.015	0.0705	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:19		20.3	291	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:24		1.015	28.5	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:12		10.15	21.2	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 15:47		1.015	0.0124	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:47		1.015	0.0694	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:47		1.015	5.46	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:29		10.15	12.7	mg/L	0.01015	0.05075	
* Selenium, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:47		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:33		92.365	13.6	mg/L	0.092365	0.461825	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	171	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	2750	mg/L		156.2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 7/14/20 10:23
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12983

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	171	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.03	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:45	7/21/20 10:45		1	1.50	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:45	7/21/20 12:45		1	0.305	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:16	7/22/20 11:16		80	1630	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/14/20 10:19	7/14/20 10:19			2710.62	uS/cm			FA
pH	7/14/20 10:19	7/14/20 10:19			6.05	SU			FA
Temperature	7/14/20 10:19	7/14/20 10:19			19.96	C			FA
Turbidity	7/14/20 10:19	7/14/20 10:19			2.75	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 10:23
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BA12983

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 10:23
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BA12983

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF
Collected: 7/14/20 11:24
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12984

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:27		1.015	0.0484	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:22		20.3	306	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:27		1.015	3.31	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 10:27		1.015	0.0182	mg/L	0.01	0.02	J
* Magnesium, Total	7/17/20 09:14	7/20/20 11:22		20.3	249	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:27		1.015	32.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 11:39		1.015	3.20	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:50		1.015	0.00275	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 15:50		1.015	0.0128	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:50		1.015	0.00979	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:50		1.015	7.81	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:32		5.075	3.28	mg/L	0.005075	0.025375	
* Selenium, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:50		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:35		5.075	3.40	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	384	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	2360	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF
Collected: 7/14/20 11:24
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12984

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	384	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.19	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:47	7/21/20 10:47		1	3.61	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:46	7/21/20 12:46		1	0.160	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:17	7/22/20 11:17		50	1270	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/14/20 11:20	7/14/20 11:20			2555.16	uS/cm			FA
pH	7/14/20 11:20	7/14/20 11:20			6.43	SU			FA
Temperature	7/14/20 11:20	7/14/20 11:20			20.67	C			FA
Turbidity	7/14/20 11:20	7/14/20 11:20			1.27	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 11:24
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BA12984

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 11:24
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BA12984

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF
Collected: 7/14/20 12:56
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12985

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:30		1.015	0.0618	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:25		20.3	399	mg/L	2.03	10.15	RA
* Iron, Total	7/17/20 09:14	7/20/20 11:25		20.3	23.8	mg/L	0.406	1.015	RA
* Lithium, Total	7/17/20 09:14	7/20/20 10:30		1.015	0.0532	mg/L	0.01	0.02	R
* Magnesium, Total	7/17/20 09:14	7/20/20 11:25		20.3	417	mg/L	2.03	10.15	RA
* Sodium, Total	7/17/20 09:14	7/20/20 11:25		20.3	38.2	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:15		10.15	20.3	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 15:52		1.015	0.00195	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 15:52		1.015	0.0143	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 15:52		1.015	0.273	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 15:52		1.015	7.02	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/28/20 13:50		92.365	20.6	mg/L	0.092365	0.461825	RA
* Selenium, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 15:52		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/30/20 09:24		92.365	15.9	mg/L	0.092365	0.461825	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	189	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	3830	mg/L		250	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF
Collected: 7/14/20 12:56
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12985

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	189	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.04	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 10:48	7/21/20 10:48		1	2.42	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:48	7/21/20 12:48		1	0.134	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:18	7/22/20 11:18		160	2360	mg/L	80.00	160	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/14/20 12:53	7/14/20 12:53			3506.78	uS/cm			FA
pH	7/14/20 12:53	7/14/20 12:53			5.91	SU			FA
Temperature	7/14/20 12:53	7/14/20 12:53			23.72	C			FA
Turbidity	7/14/20 12:53	7/14/20 12:53			1.71	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 12:56
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BA12985

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12985	Mercury, Total by CVAA	mg/L	0.0000906	0.0005	0.004	0.00329	0.00324	0.00367	0.0034 to 0.0046	82.2	70 to 130	1.53	20
BA12985	Calcium, Total	mg/L	-0.00507	0.1518	5.00	404	395	5.20	4.25 to 5.75	100	70 to 130	2.25	20
BA12985	Iron, Total	mg/L	-0.00130	0.0176	0.2	24.2	23.7	0.203	0.17 to 0.23	200	70 to 130	2.09	20
BA12985	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.314	0.317	0.202	0.17 to 0.23	130	70 to 130	0.951	20
BA12985	Sodium, Total	mg/L	0.00105	0.044	5.00	43.4	42.5	5.11	4.25 to 5.75	104	70 to 130	2.10	20
BA12985	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA12985	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.0991	0.105	0.101	0.085 to 0.115	99.1	70 to 130	5.78	20
BA12985	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.361	0.368	0.0982	0.085 to 0.115	88.0	70 to 130	1.92	20
BA12985	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.102	0.102	0.0955	0.085 to 0.115	102	70 to 130	0.00	20
BA12985	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.0989	0.103	0.103	0.085 to 0.115	98.9	70 to 130	4.06	20
BA12985	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.9	17.5	10.0	8.5 to 11.5	98.8	70 to 130	3.49	20
BA12985	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.105	0.107	0.103	0.085 to 0.115	103	70 to 130	1.89	20
BA12985	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0930	0.0944	0.0929	0.085 to 0.115	93.0	70 to 130	1.49	20
BA12985	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0954	0.0973	0.0991	0.085 to 0.115	95.4	70 to 130	1.97	20
BA12985	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	20.5	20.7	0.0986	0.085 to 0.115	-100	70 to 130	0.971	20
BA12985	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.101	0.0979	0.085 to 0.115	99.8	70 to 130	1.20	20
BA12985	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.117	0.101	0.085 to 0.115	103	70 to 130	0.00	20
BA12985	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.12	1.13	1.01	0.85 to 1.15	106	70 to 130	0.889	20
BA12985	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	423	411	5.24	4.25 to 5.75	120	70 to 130	2.88	20
BA12985	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 12:56
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BA12985

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5
BA12985	Fluoride	mg/L	0.00756	0.05	2.50	2.47	0.135	2.67	2.25 to 2.75	93.4	80 to 120	0.743	20
BA12985	Sulfate	mg/L	-0.436	0.50	3200	5250	2300	18.9	18 to 22	90.3	80 to 120	2.58	20
BA12985	Chloride	mg/L	0.0543	0.50	10.0	12.5	2.43	10.5	9 to 11	101	80 to 120	0.412	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 7/14/20 14:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12986

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:44		1.015	0.0421	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:54		20.3	316	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:44		1.015	0.117	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 10:44		1.015	0.0686	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:54		20.3	320	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:44		1.015	34.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 11:45		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:08		1.015	0.0102	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:08		1.015	7.03	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 16:08		1.015	0.00132	mg/L	0.001	0.005	J
* Selenium, Total	7/16/20 08:00	7/16/20 16:08		1.015	0.00243	mg/L	0.002	0.01	J
* Thallium, Total	7/16/20 08:00	7/16/20 16:08		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:41		1.015	Not Detected	mg/L	0.001	0.005	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	190	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	2890	mg/L		138.9	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 7/14/20 14:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12986

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	190	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.10	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:00	7/21/20 11:00		1	1.48	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 12:59	7/21/20 12:59		1	0.280	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 11:59	7/22/20 11:59		80	1690	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/14/20 14:27	7/14/20 14:27			2834.72	uS/cm			FA
pH	7/14/20 14:27	7/14/20 14:27			6.36	SU			FA
Temperature	7/14/20 14:27	7/14/20 14:27			23.06	C			FA
Turbidity	7/14/20 14:27	7/14/20 14:27			2.78	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 14:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BA12986

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12986	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	0.204	0.205	0.200	0.17 to 0.23	102	70 to 130	0.489	20
BA12986	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	0.100	0.105	0.106	0.085 to 0.115	100	70 to 130	4.88	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 14:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BA12986

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 7/15/20 09:00
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12987

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:47		1.015	0.0412	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 11:57		20.3	315	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:47		1.015	2.98	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 10:47		1.015	0.0714	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 11:57		20.3	337	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:47		1.015	35.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 13:54		1.015	1.58	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:11		1.015	0.0102	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:11		1.015	0.0299	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:11		1.015	5.93	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 16:11		1.015	1.24	mg/L	0.001	0.005	
* Selenium, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:11		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:57		1.015	1.26	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	176	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	3030	mg/L		138.9	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 7/15/20 09:00
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12987

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	176	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.00	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:02	7/21/20 11:02		1	1.71	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:00	7/21/20 13:00		1	0.342	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:00	7/22/20 12:00		80	1770	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	7/15/20 08:56	7/15/20 08:56			2839.61	uS/cm			FA
pH	7/15/20 08:56	7/15/20 08:56			6.28	SU			FA
Temperature	7/15/20 08:56	7/15/20 08:56			20.76	C			FA
Turbidity	7/15/20 08:56	7/15/20 08:56			5.51	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/15/20 09:00
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BA12987

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/15/20 09:00
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BA12987

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Equipment Blank-1

Location Code: WMWGORLFEB
Collected: 7/15/20 09:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12988

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:50		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	7/17/20 09:14	7/20/20 12:03		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	7/17/20 09:14	7/20/20 10:50		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	7/17/20 09:14	7/20/20 10:50		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	7/17/20 09:14	7/20/20 12:03		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	7/17/20 09:14	7/20/20 10:50		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:13		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:03	7/21/20 11:03		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:01	7/21/20 13:01		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:01	7/22/20 12:01		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFEB
Sample Date: 7/15/20 09:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description:Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BA12988

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFEB
Sample Date: 7/15/20 09:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BA12988

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-1

Location Code: WMWGORLF
Collected: 7/13/20 11:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12989

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:53		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	7/17/20 09:14	7/20/20 12:00		20.3	147	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:53		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	7/17/20 09:14	7/20/20 10:53		1.015	0.0280	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:00		20.3	271	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:53		1.015	39.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 13:57		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:16		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:16		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:16		1.015	0.0101	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:16		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:16		1.015	0.00194	mg/L	0.0003	0.001	
* Chromium, Total	7/16/20 08:00	7/16/20 16:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:16		1.015	0.0532	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:16		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:16		1.015	7.24	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/28/20 13:58		10.15	10.6	mg/L	0.01015	0.05075	
* Selenium, Total	7/16/20 08:00	7/16/20 16:16		1.015	0.00245	mg/L	0.002	0.01	J
* Thallium, Total	7/16/20 08:00	7/16/20 16:16		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 14:59		10.15	10.3	mg/L	0.01015	0.05075	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	21.6	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	2240	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-1

Location Code: WMWGORLF
Collected: 7/13/20 11:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12989

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	21.6	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.00	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:04	7/21/20 11:04		1	2.10	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:02	7/21/20 13:02		1	0.0678	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:03	7/22/20 12:03		50	1450	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/13/20 11:24	7/13/20 11:24			2163.10	uS/cm			FA
pH	7/13/20 11:24	7/13/20 11:24			5.14	SU			FA
Temperature	7/13/20 11:24	7/13/20 11:24			20.44	C			FA
Turbidity	7/13/20 11:24	7/13/20 11:24			2.37	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/13/20 11:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-1

Laboratory ID Number: BA12989

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/13/20 11:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-1

Laboratory ID Number: BA12989

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-1 DUP

Location Code: WMWGORLF
Collected: 7/13/20 11:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12990

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:56		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	7/17/20 09:14	7/20/20 12:06		20.3	150	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:56		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	7/17/20 09:14	7/20/20 10:56		1.015	0.0273	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:06		20.3	278	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:56		1.015	39.0	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 14:00		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:18		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:18		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:18		1.015	0.00973	mg/L	0.002	0.01	J
* Beryllium, Total	7/16/20 08:00	7/16/20 16:18		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:18		1.015	0.00205	mg/L	0.0003	0.001	
* Chromium, Total	7/16/20 08:00	7/16/20 16:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:18		1.015	0.0534	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:18		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:18		1.015	7.23	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:35		10.15	9.84	mg/L	0.01015	0.05075	
* Selenium, Total	7/16/20 08:00	7/16/20 16:18		1.015	0.00255	mg/L	0.002	0.01	J
* Thallium, Total	7/16/20 08:00	7/16/20 16:18		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:02		10.15	10.5	mg/L	0.01015	0.05075	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	21.4	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	2260	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-1 DUP

Location Code: WMWGORLF
Collected: 7/13/20 11:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12990

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	21.4	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.00	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:05	7/21/20 11:05		1	2.14	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:04	7/21/20 13:04		1	0.0621	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:04	7/22/20 12:04		50	1330	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/13/20 11:24	7/13/20 11:24			2163.10	uS/cm			FA
pH	7/13/20 11:24	7/13/20 11:24			5.14	SU			FA
Temperature	7/13/20 11:24	7/13/20 11:24			20.44	C			FA
Turbidity	7/13/20 11:24	7/13/20 11:24			2.37	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/13/20 11:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-1 DUP

Laboratory ID Number: BA12990

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/13/20 11:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-1 DUP

Laboratory ID Number: BA12990

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-2

Location Code: WMWGORLF
Collected: 7/13/20 12:52
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12991

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 10:59		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	7/17/20 09:14	7/20/20 12:09		20.3	163	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 10:59		1.015	4.05	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 10:59		1.015	0.0615	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:09		20.3	181	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 10:59		1.015	25.5	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 14:03		1.015	3.75	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:21		1.015	0.0145	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:21		1.015	0.0405	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:21		1.015	6.01	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:37		10.15	6.67	mg/L	0.01015	0.05075	
* Selenium, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:21		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:05		10.15	7.18	mg/L	0.01015	0.05075	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	235	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	1540	mg/L		100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-2

Location Code: WMWGORLF
Collected: 7/13/20 12:52
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12991

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	235	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.03	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:06	7/21/20 11:06		1	4.05	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:05	7/21/20 13:05		1	0.132	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:05	7/22/20 12:05		40	843	mg/L	20.00	40	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/13/20 12:49	7/13/20 12:49			1601.39	uS/cm			FA
pH	7/13/20 12:49	7/13/20 12:49			5.84	SU			FA
Temperature	7/13/20 12:49	7/13/20 12:49			20.28	C			FA
Turbidity	7/13/20 12:49	7/13/20 12:49			3.33	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/13/20 12:52
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-2

Laboratory ID Number: BA12991

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/13/20 12:52
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-2

Laboratory ID Number: BA12991

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-3

Location Code: WMWGORLF
Collected: 7/13/20 14:35
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12992

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:02		1.015	0.0366	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 12:12		20.3	264	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 12:12		20.3	6.24	mg/L	0.406	1.015	
* Lithium, Total	7/17/20 09:14	7/20/20 11:02		1.015	0.256	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:12		20.3	406	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 12:12		20.3	36.4	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:18		10.15	7.33	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:24		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:24		1.015	0.00316	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 16:24		1.015	0.0142	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:24		1.015	0.00210	mg/L	0.0006	0.003	J
* Cadmium, Total	7/16/20 08:00	7/16/20 16:24		1.015	0.00885	mg/L	0.0003	0.001	
* Chromium, Total	7/16/20 08:00	7/16/20 16:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:24		1.015	0.470	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:24		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:24		1.015	7.72	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:40		10.15	11.0	mg/L	0.01015	0.05075	
* Selenium, Total	7/16/20 08:00	7/16/20 16:24		1.015	0.0134	mg/L	0.002	0.01	
* Thallium, Total	7/16/20 08:00	7/16/20 16:24		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:07		10.15	11.1	mg/L	0.01015	0.05075	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	20.1	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	3650	mg/L		208.3	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-3

Location Code: WMWGORLF
Collected: 7/13/20 14:35
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12992

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	20.1	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.00	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:08	7/21/20 11:08		1	1.34	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:06	7/21/20 13:06		1	0.130	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:06	7/22/20 12:06		100	2130	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/13/20 14:29	7/13/20 14:29			2834.89	uS/cm			FA
pH	7/13/20 14:29	7/13/20 14:29			5.16	SU			FA
Temperature	7/13/20 14:29	7/13/20 14:29			25.30	C			FA
Turbidity	7/13/20 14:29	7/13/20 14:29			9.7	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/13/20 14:35
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-3

Laboratory ID Number: BA12992

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/13/20 14:35
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-3

Laboratory ID Number: BA12992

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 7/14/20 09:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12993

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:05		1.015	0.0330	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 12:15		20.3	395	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 11:05		1.015	2.89	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 11:05		1.015	0.110	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:15		20.3	404	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 12:15		20.3	54.1	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 14:09		1.015	2.42	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:26		1.015	0.0124	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:26		1.015	5.83	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/28/20 14:01		1.015	0.686	mg/L	0.001	0.005	
* Selenium, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:10		1.015	0.721	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 15:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	263	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	3710	mg/L		208.3	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 7/14/20 09:30
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12993

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	263	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.17	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:09	7/21/20 11:09		1	6.84	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:07	7/21/20 13:07		1	0.263	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:07	7/22/20 12:07		100	2080	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/14/20 09:27	7/14/20 09:27			2682.21	uS/cm			FA
pH	7/14/20 09:27	7/14/20 09:27			6.48	SU			FA
Temperature	7/14/20 09:27	7/14/20 09:27			22.89	C			FA
Turbidity	7/14/20 09:27	7/14/20 09:27			2.88	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 09:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BA12993

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 09:30
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BA12993

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-4

Location Code: WMWGORLF
Collected: 7/14/20 10:55
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12994

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:08		1.015	0.0441	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 12:18		20.3	259	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 11:08		1.015	0.0271	mg/L	0.02	0.05	J
* Lithium, Total	7/17/20 09:14	7/20/20 11:08		1.015	0.0543	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:18		20.3	418	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 11:08		1.015	37.3	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 14:12		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 16:29		1.015	0.0122	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:29		1.015	7.76	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Selenium, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:29		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:13		1.015	Not Detected	mg/L	0.001	0.005	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 16:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	173	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/16/20 11:00	7/20/20 14:00		1	3310	mg/L		208.3	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-4

Location Code: WMWGORLF
Collected: 7/14/20 10:55
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12994

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	173	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.05	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:10	7/21/20 11:10		1	1.61	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:08	7/21/20 13:08		1	0.330	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:09	7/22/20 12:09		100	1970	mg/L	50.00	100	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/14/20 10:51	7/14/20 10:51			2212.35	uS/cm			FA
pH	7/14/20 10:51	7/14/20 10:51			6.20	SU			FA
Temperature	7/14/20 10:51	7/14/20 10:51			21.05	C			FA
Turbidity	7/14/20 10:51	7/14/20 10:51			2.25	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 10:55
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-4

Laboratory ID Number: BA12994

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 10:55
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-4

Laboratory ID Number: BA12994

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12994	Solids, Dissolved	mg/L	2.00	25			3280	51.0	40 to 60			0.455	5
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 7/14/20 11:55
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12995

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:11		1.015	0.0838	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 12:21		20.3	406	mg/L	2.03	10.15	RA
* Iron, Total	7/17/20 09:14	7/20/20 12:21		20.3	34.7	mg/L	0.406	1.015	RA
* Lithium, Total	7/17/20 09:14	7/20/20 11:11		1.015	0.223	mg/L	0.01	0.02	R
* Magnesium, Total	7/17/20 09:14	7/20/20 12:21		20.3	296	mg/L	2.03	10.15	RA
* Sodium, Total	7/17/20 09:14	7/20/20 12:21		20.3	63.7	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:21		10.15	35.6	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:31		1.015	0.00480	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 16:31		1.015	0.0154	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:31		1.015	0.0916	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:31		1.015	6.34	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:42		10.15	12.1	mg/L	0.01015	0.05075	RA
* Selenium, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:31		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:15		92.365	13.3	mg/L	0.092365	0.461825	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 16:03		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	173	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	3270	mg/L		178.6	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 7/14/20 11:55
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12995

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	173	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.03	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:11	7/21/20 11:11		1	3.25	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:10	7/21/20 13:10		1	0.115	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:10	7/22/20 12:10		160	1970	mg/L	80.00	160	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/14/20 11:51	7/14/20 11:51			2191.41	uS/cm			FA
pH	7/14/20 11:51	7/14/20 11:51			6.12	SU			FA
Temperature	7/14/20 11:51	7/14/20 11:51			21.43	C			FA
Turbidity	7/14/20 11:51	7/14/20 11:51			4.1	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 11:55
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BA12995

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Arsenic, Total	mg/L	0.0000540	0.0001474	0.10	0.108	0.106	0.103	0.085 to 0.115	103	70 to 130	1.87	20
BA12995	Magnesium, Total	mg/L	-0.0101	0.0462	5.00	295	297	5.24	4.25 to 5.75	-20.0	70 to 130	0.676	20
BA12995	Selenium, Total	mg/L	0.0000437	0.00066	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Iron, Total	mg/L	-0.00130	0.0176	0.2	34.1	34.7	0.203	0.17 to 0.23	-300	70 to 130	1.74	20
BA12995	Lithium, Total	mg/L	0.0000739	0.0154	0.20	0.489	0.485	0.202	0.17 to 0.23	133	70 to 130	0.821	20
BA12995	Antimony, Total	mg/L	0.000176	0.00066	0.10	0.101	0.101	0.0955	0.085 to 0.115	101	70 to 130	0.00	20
BA12995	Cobalt, Total	mg/L	-0.00000497	0.0001474	0.10	0.189	0.186	0.0982	0.085 to 0.115	97.4	70 to 130	1.60	20
BA12995	Thallium, Total	mg/L	0.00000169	0.0001474	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA12995	Beryllium, Total	mg/L	-0.0000225	0.00088	0.10	0.0978	0.0942	0.0929	0.085 to 0.115	97.8	70 to 130	3.75	20
BA12995	Mercury, Total by CVAA	mg/L	0.0000819	0.0005	0.004	0.00339	0.00337	0.00369	0.0034 to 0.0046	84.8	70 to 130	0.592	20
BA12995	Potassium, Total	mg/L	0.00576	0.3674	10.0	16.7	16.4	10.0	8.5 to 11.5	104	70 to 130	1.81	20
BA12995	Sodium, Total	mg/L	0.00105	0.044	5.00	67.7	67.3	5.11	4.25 to 5.75	80.0	70 to 130	0.593	20
BA12995	Barium, Total	mg/L	0.0000003	0.0002	0.10	0.117	0.118	0.101	0.085 to 0.115	102	70 to 130	0.851	20
BA12995	Boron, Total	mg/L	0.00109	0.0650254	1.00	1.14	1.15	1.01	0.85 to 1.15	106	70 to 130	0.873	20
BA12995	Cadmium, Total	mg/L	0.00000409	0.0001474	0.10	0.0988	0.0973	0.0991	0.085 to 0.115	98.8	70 to 130	1.53	20
BA12995	Chromium, Total	mg/L	-0.0000240	0.00044	0.10	0.102	0.101	0.103	0.085 to 0.115	102	70 to 130	0.985	20
BA12995	Manganese, Total	mg/L	0.0000432	0.0001474	0.10	12.3	12.3	0.0986	0.085 to 0.115	200	70 to 130	0.00	20
BA12995	Molybdenum, Total	mg/L	0.00000214	0.0001474	0.10	0.0998	0.0978	0.0979	0.085 to 0.115	99.8	70 to 130	2.02	20
BA12995	Calcium, Total	mg/L	-0.00507	0.1518	5.00	401	405	5.20	4.25 to 5.75	-100	70 to 130	0.993	20
BA12995	Lead, Total	mg/L	-0.00000132	0.0001474	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 11:55
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BA12995

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12995	Fluoride	mg/L	0.00717	0.05	2.50	2.71	0.115	2.66	2.25 to 2.75	104	80 to 120	0.00	20
BA12995	Sulfate	mg/L	-0.395	0.50	3200	5310	2080	19.0	18 to 22	104	80 to 120	5.43	20
BA12995	Chloride	mg/L	0.0518	0.50	10.0	13.4	3.25	10.5	9 to 11	102	80 to 120	0.00	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Post digestion spike and serial dilution indicate matrix interference for Lithium from the sample. LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 7/14/20 13:25
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12996

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:39		1.015	0.0865	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 12:44		20.3	261	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 11:39		1.015	2.20	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 11:39		1.015	0.103	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:44		20.3	231	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 11:39		1.015	40.6	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 14:18		1.015	2.16	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:52		1.015	0.00147	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 16:52		1.015	0.0148	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:52		1.015	0.00653	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:52		1.015	6.59	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:58		5.075	3.48	mg/L	0.005075	0.025375	
* Selenium, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:52		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:18		5.075	3.85	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 16:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	327	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	2210	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 7/14/20 13:25
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12996

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	327	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.12	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:37	7/21/20 11:37		1	9.68	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:21	7/21/20 13:21		1	0.193	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:44	7/22/20 12:44		80	1330	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/14/20 13:19	7/14/20 13:19			1763.26	uS/cm			FA
pH	7/14/20 13:19	7/14/20 13:19			6.52	SU			FA
Temperature	7/14/20 13:19	7/14/20 13:19			20.26	C			FA
Turbidity	7/14/20 13:19	7/14/20 13:19			2.26	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 13:25
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BA12996

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA13000	Arsenic, Total	mg/L	0.0000059	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA13000	Cobalt, Total	mg/L	-0.0000062	0.0001474	0.10	0.0971	0.0977	0.0973	0.085 to 0.115	97.1	70 to 130	0.616	20
BA13000	Barium, Total	mg/L	0.0000193	0.0002	0.10	0.102	0.0997	0.101	0.085 to 0.115	102	70 to 130	2.28	20
BA13000	Beryllium, Total	mg/L	-0.00000758	0.00088	0.10	0.0951	0.0964	0.0985	0.085 to 0.115	95.1	70 to 130	1.36	20
BA13000	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.0985	0.0994	0.0994	0.085 to 0.115	98.5	70 to 130	0.910	20
BA13000	Sodium, Total	mg/L	-0.000448	0.044	5.00	5.15	5.16	5.19	4.25 to 5.75	103	70 to 130	0.194	20
BA13000	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Chromium, Total	mg/L	0.0000262	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.976	20
BA13000	Iron, Total	mg/L	-0.000785	0.0176	0.2	0.210	0.211	0.210	0.17 to 0.23	105	70 to 130	0.475	20
BA13000	Mercury, Total by CVAA	mg/L	0.0000813	0.0005	0.004	0.00350	0.00345	0.00361	0.0034 to 0.0046	87.5	70 to 130	1.44	20
BA13000	Selenium, Total	mg/L	-0.0000200	0.00066	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Thallium, Total	mg/L	0.0000047	0.0001474	0.10	0.104	0.104	0.106	0.085 to 0.115	104	70 to 130	0.00	20
BA13000	Potassium, Total	mg/L	0.0109	0.3674	10.0	10.1	10.2	10.0	8.5 to 11.5	101	70 to 130	0.985	20
BA13000	Manganese, Total	mg/L	0.000146	0.0001474	0.10	0.0999	0.0997	0.102	0.085 to 0.115	99.9	70 to 130	0.200	20
BA13000	Molybdenum, Total	mg/L	0.0000186	0.0001474	0.10	0.0991	0.0986	0.0992	0.085 to 0.115	99.1	70 to 130	0.506	20
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20
BA13000	Boron, Total	mg/L	0.00524	0.0650254	1.00	1.02	1.02	1.03	0.85 to 1.15	102	70 to 130	0.00	20
BA13000	Calcium, Total	mg/L	-0.00657	0.1518	5.00	4.99	5.10	5.00	4.25 to 5.75	99.8	70 to 130	2.18	20
BA13000	Lithium, Total	mg/L	0.000365	0.0154	0.20	0.212	0.213	0.213	0.17 to 0.23	106	70 to 130	0.471	20
BA13000	Magnesium, Total	mg/L	-0.00278	0.0462	5.00	4.95	5.08	4.99	4.25 to 5.75	99.0	70 to 130	2.59	20
BA13000	Antimony, Total	mg/L	0.000299	0.00066	0.10	0.0958	0.0949	0.0962	0.085 to 0.115	95.8	70 to 130	0.944	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 13:25
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BA12996

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5
BA13000	Fluoride	mg/L	0.00745	0.05	2.50	2.58	0.0106	2.68	2.25 to 2.75	103	80 to 120	0.00	20
BA13000	Chloride	mg/L	0.0577	0.50	10.0	9.97	0.209	10.5	9 to 11	99.7	80 to 120	0.00	20
BA13000	Sulfate	mg/L	-0.470	0.50	20.0	19.5	-0.736	20.4	18 to 22	97.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 7/14/20 14:40
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12997

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:42		1.015	0.250	mg/L	0.03	0.1	
* Calcium, Total	7/17/20 09:14	7/20/20 12:47		20.3	208	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 12:47		20.3	13.1	mg/L	0.406	1.015	
* Lithium, Total	7/17/20 09:14	7/20/20 11:42		1.015	0.255	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 12:47		20.3	84.9	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 12:47		20.3	69.1	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:24		10.15	14.2	mg/L	0.203	0.5075	RA
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:55		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:55		1.015	0.00164	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 16:55		1.015	0.0245	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:55		1.015	0.00135	mg/L	0.0006	0.003	J
* Cadmium, Total	7/16/20 08:00	7/16/20 16:55		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:55		1.015	0.0232	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:55		1.015	6.06	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 18:01		5.075	2.10	mg/L	0.005075	0.025375	
* Selenium, Total	7/16/20 08:00	7/16/20 16:55		1.015	0.00273	mg/L	0.002	0.01	J
* Thallium, Total	7/16/20 08:00	7/16/20 16:55		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:21		5.075	2.39	mg/L	0.005075	0.025375	RA
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 16:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 09:21	7/27/20 10:25		1	135	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	1270	mg/L		83.3	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 7/14/20 14:40
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12997

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	135	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 09:21	7/27/20 10:25		1	0.03	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:38	7/21/20 11:38		1	3.09	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:22	7/21/20 13:22		1	0.224	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:45	7/22/20 12:45		80	845	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/14/20 14:37	7/14/20 14:37			1211.26	uS/cm			FA
pH	7/14/20 14:37	7/14/20 14:37			6.42	SU			FA
Temperature	7/14/20 14:37	7/14/20 14:37			24.18	C			FA
Turbidity	7/14/20 14:37	7/14/20 14:37			8.34	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/14/20 14:40
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BA12997

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12997	Iron, Dissolved	mg/L	-0.000594	0.0176	0.2	14.4	14.6	0.200	0.17 to 0.23	100	70 to 130	1.38	20
BA12997	Manganese, Dissolved	mg/L	0.0000226	0.0001474	0.10	2.49	2.44	0.106	0.085 to 0.115	100	70 to 130	2.03	20
BA13000	Potassium, Total	mg/L	0.0109	0.3674	10.0	10.1	10.2	10.0	8.5 to 11.5	101	70 to 130	0.985	20
BA13000	Manganese, Total	mg/L	0.000146	0.0001474	0.10	0.0999	0.0997	0.102	0.085 to 0.115	99.9	70 to 130	0.200	20
BA13000	Molybdenum, Total	mg/L	0.0000186	0.0001474	0.10	0.0991	0.0986	0.0992	0.085 to 0.115	99.1	70 to 130	0.506	20
BA13000	Boron, Total	mg/L	0.00524	0.0650254	1.00	1.02	1.02	1.03	0.85 to 1.15	102	70 to 130	0.00	20
BA13000	Calcium, Total	mg/L	-0.00657	0.1518	5.00	4.99	5.10	5.00	4.25 to 5.75	99.8	70 to 130	2.18	20
BA13000	Lithium, Total	mg/L	0.000365	0.0154	0.20	0.212	0.213	0.213	0.17 to 0.23	106	70 to 130	0.471	20
BA13000	Magnesium, Total	mg/L	-0.00278	0.0462	5.00	4.95	5.08	4.99	4.25 to 5.75	99.0	70 to 130	2.59	20
BA13000	Antimony, Total	mg/L	0.000299	0.00066	0.10	0.0958	0.0949	0.0962	0.085 to 0.115	95.8	70 to 130	0.944	20
BA13000	Arsenic, Total	mg/L	0.0000059	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA13000	Cobalt, Total	mg/L	-0.0000062	0.0001474	0.10	0.0971	0.0977	0.0973	0.085 to 0.115	97.1	70 to 130	0.616	20
BA13000	Chromium, Total	mg/L	0.0000262	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.976	20
BA13000	Iron, Total	mg/L	-0.000785	0.0176	0.2	0.210	0.211	0.210	0.17 to 0.23	105	70 to 130	0.475	20
BA13000	Mercury, Total by CVAA	mg/L	0.0000813	0.0005	0.004	0.00350	0.00345	0.00361	0.0034 to 0.0046	87.5	70 to 130	1.44	20
BA13000	Selenium, Total	mg/L	-0.0000200	0.00066	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Thallium, Total	mg/L	0.0000047	0.0001474	0.10	0.104	0.104	0.106	0.085 to 0.115	104	70 to 130	0.00	20
BA13000	Barium, Total	mg/L	0.0000193	0.0002	0.10	0.102	0.0997	0.101	0.085 to 0.115	102	70 to 130	2.28	20
BA13000	Beryllium, Total	mg/L	-0.00000758	0.00088	0.10	0.0951	0.0964	0.0985	0.085 to 0.115	95.1	70 to 130	1.36	20
BA13000	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.0985	0.0994	0.0994	0.085 to 0.115	98.5	70 to 130	0.910	20
BA13000	Sodium, Total	mg/L	-0.000448	0.044	5.00	5.15	5.16	5.19	4.25 to 5.75	103	70 to 130	0.194	20
BA13000	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.985	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/14/20 14:40
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BA12997

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA13000	Chloride	mg/L	0.0577	0.50	10.0	9.97	0.209	10.5	9 to 11	99.7	80 to 120	0.00	20
BA13000	Sulfate	mg/L	-0.470	0.50	20.0	19.5	-0.736	20.4	18 to 22	97.5	80 to 120	0.00	20
BA12997	Alkalinity, Total as CaCO3	mg/L					137	49.8	45.0 to 55.0			1.47	10
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5
BA13000	Fluoride	mg/L	0.00745	0.05	2.50	2.58	0.0106	2.68	2.25 to 2.75	103	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 7/15/20 09:25
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12998

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:45		1.015	0.0723	mg/L	0.03	0.1	J
* Calcium, Total	7/17/20 09:14	7/20/20 13:07		20.3	280	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 11:45		1.015	3.55	mg/L	0.02	0.05	
* Lithium, Total	7/17/20 09:14	7/20/20 11:45		1.015	0.152	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 13:07		20.3	267	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 13:07		20.3	36.4	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 14:42		1.015	1.90	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 16:58		1.015	0.00212	mg/L	0.001	0.005	J
* Barium, Total	7/16/20 08:00	7/16/20 16:58		1.015	0.0143	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 16:58		1.015	0.00821	mg/L	0.002	0.005	
* Lead, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 16:58		1.015	7.85	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 16:58		1.015	1.00	mg/L	0.001	0.005	
* Selenium, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 16:58		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:42		1.015	1.04	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 16:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 10:25	7/27/20 10:40		1	373	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	2460	mg/L		125	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 7/15/20 09:25
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12998

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 10:25	7/27/20 10:40		1	373	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 10:25	7/27/20 10:40		1	0.26	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:41	7/21/20 11:41		2	23.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:23	7/21/20 13:23		1	0.196	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:47	7/22/20 12:47		80	1410	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/15/20 09:22	7/15/20 09:22			2259.40	uS/cm			FA
pH	7/15/20 09:22	7/15/20 09:22			6.71	SU			FA
Temperature	7/15/20 09:22	7/15/20 09:22			22.81	C			FA
Turbidity	7/15/20 09:22	7/15/20 09:22			9.42	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/15/20 09:25
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BA12998

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA12999	Iron, Dissolved	mg/L	-0.000517	0.0176	0.2	7.41	7.18	0.212	0.17 to 0.23	60.0	70 to 130	3.15	20
BA12999	Manganese, Dissolved	mg/L	0.0000506	0.0001474	0.10	1.25	1.25	0.102	0.085 to 0.115	90.0	70 to 130	0.00	20
BA13000	Arsenic, Total	mg/L	0.0000059	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA13000	Cobalt, Total	mg/L	-0.0000062	0.0001474	0.10	0.0971	0.0977	0.0973	0.085 to 0.115	97.1	70 to 130	0.616	20
BA13000	Barium, Total	mg/L	0.0000193	0.0002	0.10	0.102	0.0997	0.101	0.085 to 0.115	102	70 to 130	2.28	20
BA13000	Beryllium, Total	mg/L	-0.00000758	0.00088	0.10	0.0951	0.0964	0.0985	0.085 to 0.115	95.1	70 to 130	1.36	20
BA13000	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.0985	0.0994	0.0994	0.085 to 0.115	98.5	70 to 130	0.910	20
BA13000	Sodium, Total	mg/L	-0.000448	0.044	5.00	5.15	5.16	5.19	4.25 to 5.75	103	70 to 130	0.194	20
BA13000	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Potassium, Total	mg/L	0.0109	0.3674	10.0	10.1	10.2	10.0	8.5 to 11.5	101	70 to 130	0.985	20
BA13000	Manganese, Total	mg/L	0.000146	0.0001474	0.10	0.0999	0.0997	0.102	0.085 to 0.115	99.9	70 to 130	0.200	20
BA13000	Molybdenum, Total	mg/L	0.0000186	0.0001474	0.10	0.0991	0.0986	0.0992	0.085 to 0.115	99.1	70 to 130	0.506	20
BA13000	Boron, Total	mg/L	0.00524	0.0650254	1.00	1.02	1.02	1.03	0.85 to 1.15	102	70 to 130	0.00	20
BA13000	Calcium, Total	mg/L	-0.00657	0.1518	5.00	4.99	5.10	5.00	4.25 to 5.75	99.8	70 to 130	2.18	20
BA13000	Lithium, Total	mg/L	0.000365	0.0154	0.20	0.212	0.213	0.213	0.17 to 0.23	106	70 to 130	0.471	20
BA13000	Magnesium, Total	mg/L	-0.00278	0.0462	5.00	4.95	5.08	4.99	4.25 to 5.75	99.0	70 to 130	2.59	20
BA13000	Antimony, Total	mg/L	0.000299	0.00066	0.10	0.0958	0.0949	0.0962	0.085 to 0.115	95.8	70 to 130	0.944	20
BA13000	Chromium, Total	mg/L	0.0000262	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.976	20
BA13000	Iron, Total	mg/L	-0.000785	0.0176	0.2	0.210	0.211	0.210	0.17 to 0.23	105	70 to 130	0.475	20
BA13000	Mercury, Total by CVAA	mg/L	0.0000813	0.0005	0.004	0.00350	0.00345	0.00361	0.0034 to 0.0046	87.5	70 to 130	1.44	20
BA13000	Selenium, Total	mg/L	-0.0000200	0.00066	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Thallium, Total	mg/L	0.0000047	0.0001474	0.10	0.104	0.104	0.106	0.085 to 0.115	104	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/15/20 09:25
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BA12998

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA13000	Chloride	mg/L	0.0577	0.50	10.0	9.97	0.209	10.5	9 to 11	99.7	80 to 120	0.00	20
BA13000	Sulfate	mg/L	-0.470	0.50	20.0	19.5	-0.736	20.4	18 to 22	97.5	80 to 120	0.00	20
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5
BA12999	Alkalinity, Total as CaCO3	mg/L					260	49.8	45.0 to 55.0			1.55	10
BA13000	Fluoride	mg/L	0.00745	0.05	2.50	2.58	0.0106	2.68	2.25 to 2.75	103	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 7/15/20 10:45
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12999

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:48		1.015	0.114	mg/L	0.03	0.1	
* Calcium, Total	7/17/20 09:14	7/20/20 13:10		20.3	342	mg/L	2.03	10.15	
* Iron, Total	7/17/20 09:14	7/20/20 13:10		20.3	6.57	mg/L	0.406	1.015	
* Lithium, Total	7/17/20 09:14	7/20/20 11:48		1.015	0.256	mg/L	0.01	0.02	
* Magnesium, Total	7/17/20 09:14	7/20/20 13:10		20.3	179	mg/L	2.03	10.15	
* Sodium, Total	7/17/20 09:14	7/20/20 13:10		20.3	135	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	7/21/20 08:00	7/21/20 15:39		10.15	7.29	mg/L	0.203	0.5075	RA
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 17:00		1.015	0.0173	mg/L	0.002	0.01	
* Beryllium, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	7/16/20 08:00	7/16/20 17:00		1.015	6.19	mg/L	0.3	2.5	
* Manganese, Total	7/16/20 08:00	7/16/20 17:00		1.015	1.12	mg/L	0.001	0.005	
* Selenium, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 17:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	7/16/20 09:30	7/28/20 15:44		1.015	1.16	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 16:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	7/27/20 10:25	7/27/20 10:40		1	256	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	2480	mg/L		138.9	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 7/15/20 10:45
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA12999

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	7/27/20 10:25	7/27/20 10:40		1	256	mg/L			
Carbonate Alkalinity, (calc.)	7/27/20 10:25	7/27/20 10:40		1	0.23	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:42	7/21/20 11:42		10	68.4	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:24	7/21/20 13:24		1	0.110	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:48	7/22/20 12:48		80	1480	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	7/15/20 10:39	7/15/20 10:39			2273.89	uS/cm			FA
pH	7/15/20 10:39	7/15/20 10:39			6.87	SU			FA
Temperature	7/15/20 10:39	7/15/20 10:39			21.05	C			FA
Turbidity	7/15/20 10:39	7/15/20 10:39			2.28	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 7/15/20 10:45
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BA12999

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA13000	Arsenic, Total	mg/L	0.0000059	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA13000	Cobalt, Total	mg/L	-0.0000062	0.0001474	0.10	0.0971	0.0977	0.0973	0.085 to 0.115	97.1	70 to 130	0.616	20
BA13000	Barium, Total	mg/L	0.0000193	0.0002	0.10	0.102	0.0997	0.101	0.085 to 0.115	102	70 to 130	2.28	20
BA13000	Beryllium, Total	mg/L	-0.00000758	0.00088	0.10	0.0951	0.0964	0.0985	0.085 to 0.115	95.1	70 to 130	1.36	20
BA13000	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.0985	0.0994	0.0994	0.085 to 0.115	98.5	70 to 130	0.910	20
BA13000	Sodium, Total	mg/L	-0.000448	0.044	5.00	5.15	5.16	5.19	4.25 to 5.75	103	70 to 130	0.194	20
BA13000	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Boron, Total	mg/L	0.00524	0.0650254	1.00	1.02	1.02	1.03	0.85 to 1.15	102	70 to 130	0.00	20
BA13000	Calcium, Total	mg/L	-0.00657	0.1518	5.00	4.99	5.10	5.00	4.25 to 5.75	99.8	70 to 130	2.18	20
BA13000	Lithium, Total	mg/L	0.000365	0.0154	0.20	0.212	0.213	0.213	0.17 to 0.23	106	70 to 130	0.471	20
BA13000	Magnesium, Total	mg/L	-0.00278	0.0462	5.00	4.95	5.08	4.99	4.25 to 5.75	99.0	70 to 130	2.59	20
BA13000	Antimony, Total	mg/L	0.000299	0.00066	0.10	0.0958	0.0949	0.0962	0.085 to 0.115	95.8	70 to 130	0.944	20
BA12999	Iron, Dissolved	mg/L	-0.000517	0.0176	0.2	7.41	7.18	0.212	0.17 to 0.23	60.0	70 to 130	3.15	20
BA12999	Manganese, Dissolved	mg/L	0.0000506	0.0001474	0.10	1.25	1.25	0.102	0.085 to 0.115	90.0	70 to 130	0.00	20
BA13000	Chromium, Total	mg/L	0.0000262	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.976	20
BA13000	Iron, Total	mg/L	-0.000785	0.0176	0.2	0.210	0.211	0.210	0.17 to 0.23	105	70 to 130	0.475	20
BA13000	Mercury, Total by CVAA	mg/L	0.0000813	0.0005	0.004	0.00350	0.00345	0.00361	0.0034 to 0.0046	87.5	70 to 130	1.44	20
BA13000	Selenium, Total	mg/L	-0.0000200	0.00066	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Thallium, Total	mg/L	0.0000047	0.0001474	0.10	0.104	0.104	0.106	0.085 to 0.115	104	70 to 130	0.00	20
BA13000	Potassium, Total	mg/L	0.0109	0.3674	10.0	10.1	10.2	10.0	8.5 to 11.5	101	70 to 130	0.985	20
BA13000	Manganese, Total	mg/L	0.000146	0.0001474	0.10	0.0999	0.0997	0.102	0.085 to 0.115	99.9	70 to 130	0.200	20
BA13000	Molybdenum, Total	mg/L	0.0000186	0.0001474	0.10	0.0991	0.0986	0.0992	0.085 to 0.115	99.1	70 to 130	0.506	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 7/15/20 10:45
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BA12999

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA13000	Chloride	mg/L	0.0577	0.50	10.0	9.97	0.209	10.5	9 to 11	99.7	80 to 120	0.00	20
BA13000	Sulfate	mg/L	-0.470	0.50	20.0	19.5	-0.736	20.4	18 to 22	97.5	80 to 120	0.00	20
BA12999	Alkalinity, Total as CaCO3	mg/L					260	49.8	45.0 to 55.0			1.55	10
BA12999	Solids, Dissolved	mg/L	0.0000	25			2340	53.0	40 to 60			2.90	5
BA13000	Fluoride	mg/L	0.00745	0.05	2.50	2.58	0.0106	2.68	2.25 to 2.75	103	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 8/13/20

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Field Blank-2

Location Code: WMWGORLFFB
Collected: 7/15/20 11:05
Customer ID:
Submittal Date: 7/15/20 14:03

Laboratory ID Number: BA13000

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	7/17/20 09:14	7/20/20 11:50		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	7/17/20 09:14	7/20/20 13:13		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	7/17/20 09:14	7/20/20 11:50		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	7/17/20 09:14	7/20/20 11:50		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	7/17/20 09:14	7/20/20 13:13		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	7/17/20 09:14	7/20/20 11:50		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	7/16/20 08:00	7/16/20 17:03		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	7/17/20 12:48	7/20/20 16:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	7/17/20 14:06	7/22/20 09:56		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	7/21/20 11:43	7/21/20 11:43		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	7/21/20 13:26	7/21/20 13:26		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	7/22/20 12:49	7/22/20 12:49		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFFB
Sample Date: 7/15/20 11:05
Customer ID:
Delivery Date: 7/15/20 14:03

Description:Gorgas Landfill Field Blank-2

Laboratory ID Number: BA13000

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA13000	Arsenic, Total	mg/L	0.0000059	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA13000	Cobalt, Total	mg/L	-0.0000062	0.0001474	0.10	0.0971	0.0977	0.0973	0.085 to 0.115	97.1	70 to 130	0.616	20
BA13000	Chromium, Total	mg/L	0.0000262	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.976	20
BA13000	Iron, Total	mg/L	-0.000785	0.0176	0.2	0.210	0.211	0.210	0.17 to 0.23	105	70 to 130	0.475	20
BA13000	Mercury, Total by CVAA	mg/L	0.0000813	0.0005	0.004	0.00350	0.00345	0.00361	0.0034 to 0.0046	87.5	70 to 130	1.44	20
BA13000	Selenium, Total	mg/L	-0.0000200	0.00066	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Thallium, Total	mg/L	0.0000047	0.0001474	0.10	0.104	0.104	0.106	0.085 to 0.115	104	70 to 130	0.00	20
BA13000	Barium, Total	mg/L	0.0000193	0.0002	0.10	0.102	0.0997	0.101	0.085 to 0.115	102	70 to 130	2.28	20
BA13000	Beryllium, Total	mg/L	-0.00000758	0.00088	0.10	0.0951	0.0964	0.0985	0.085 to 0.115	95.1	70 to 130	1.36	20
BA13000	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.0985	0.0994	0.0994	0.085 to 0.115	98.5	70 to 130	0.910	20
BA13000	Sodium, Total	mg/L	-0.000448	0.044	5.00	5.15	5.16	5.19	4.25 to 5.75	103	70 to 130	0.194	20
BA13000	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.985	20
BA13000	Boron, Total	mg/L	0.00524	0.0650254	1.00	1.02	1.02	1.03	0.85 to 1.15	102	70 to 130	0.00	20
BA13000	Calcium, Total	mg/L	-0.00657	0.1518	5.00	4.99	5.10	5.00	4.25 to 5.75	99.8	70 to 130	2.18	20
BA13000	Lithium, Total	mg/L	0.000365	0.0154	0.20	0.212	0.213	0.213	0.17 to 0.23	106	70 to 130	0.471	20
BA13000	Magnesium, Total	mg/L	-0.00278	0.0462	5.00	4.95	5.08	4.99	4.25 to 5.75	99.0	70 to 130	2.59	20
BA13000	Antimony, Total	mg/L	0.000299	0.00066	0.10	0.0958	0.0949	0.0962	0.085 to 0.115	95.8	70 to 130	0.944	20
BA13000	Potassium, Total	mg/L	0.0109	0.3674	10.0	10.1	10.2	10.0	8.5 to 11.5	101	70 to 130	0.985	20
BA13000	Manganese, Total	mg/L	0.000146	0.0001474	0.10	0.0999	0.0997	0.102	0.085 to 0.115	99.9	70 to 130	0.200	20
BA13000	Molybdenum, Total	mg/L	0.0000186	0.0001474	0.10	0.0991	0.0986	0.0992	0.085 to 0.115	99.1	70 to 130	0.506	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFFB
Sample Date: 7/15/20 11:05
Customer ID:
Delivery Date: 7/15/20 14:03

Description: Gorgas Landfill Field Blank-2

Laboratory ID Number: BA13000

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA13000	Chloride	mg/L	0.0577	0.50	10.0	9.97	0.209	10.5	9 to 11	99.7	80 to 120	0.00	20
BA13000	Sulfate	mg/L	-0.470	0.50	20.0	19.5	-0.736	20.4	18 to 22	97.5	80 to 120	0.00	20
BA12998	Solids, Dissolved	mg/L	0.0000	25			2500	53.0	40 to 60			0.806	5
BA13000	Fluoride	mg/L	0.00745	0.05	2.50	2.58	0.0106	2.68	2.25 to 2.75	103	80 to 120	0.00	20

Comments:

Reported: 8/14/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Alabama Power

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
R	Matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab
☑ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Gorgas Landfill

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Dissolved Meta	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments: Correcting from MW-17 to MW-17R per collector. LBM 7/15/2020

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11	07/13/2020	13:08	6	Groundwater		BA12976
MW-12	07/13/2020	14:23	6	Groundwater		BA12977
MW-12V	07/13/2020	15:35	6	Groundwater		BA12978
FB-1	07/13/2020	16:05	4	Field Blank		BA12979
MW-13	07/14/2020	08:14	6	Groundwater		BA12980
MW-14	07/14/2020	09:14	6	Groundwater		BA12981
MW-14 dup	07/14/2020	09:14	6	Sample Duplicate		BA12982
MW-15	07/14/2020	10:23	6	Groundwater		BA12983
MW-16	07/14/2020	11:24	6	Groundwater		BA12984
MW-17R	07/14/2020	12:56	6	Groundwater		BA12985
MW-18	07/14/2020	14:30	6	Groundwater		BA12986
MW-19	07/15/2020	09:00	6	Groundwater		BA12987
EB-1	07/15/2020	09:30	4	Equipment Blank		BA12988

Relinquished By	Received By	Date/Time
Dallas Gentry	Laura Mabry	07/15/2020 11:40

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2	☑
Turbidity ID	7081-38476-1-1	Cooler Temp	0.4 degrees C
Sample Event	1286	Thermometer ID	5408-27568-2-2
		pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab
☑ Lab Complete

Lab ETA: 07/15/2020 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Landfill

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Diss Metals	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments:

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	07/13/2020	11:30	6	Groundwater		BA12989
MW-1 Dup	07/13/2020	11:30	6	Sample Duplicate		BA12990
MW-2	07/13/2020	12:52	6	Groundwater		BA12991
MW-3	07/13/2020	14:35	6	Groundwater		BA12992
MW-5	07/14/2020	09:30	6	Groundwater		BA12993
MW-4	07/14/2020	10:55	6	Groundwater		BA12994
MW-6	07/14/2020	11:55	6	Groundwater		BA12995
MW-7	07/14/2020	13:25	6	Groundwater		BA12996
MW-10	07/14/2020	14:40	6	Groundwater		BA12997
MW-8	07/15/2020	09:25	6	Groundwater		BA12998
MW-20	07/15/2020	10:45	6	Groundwater		BA12999
FB-2	07/15/2020	11:05	4	Field Blank		BA13000

Relinquished By	Received By	Date/Time
		07/15/2020 13:15

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	0.5 degrees C
Sample Event	1286	Thermometer ID	5408-27568-2-2
		pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Gorgas Landfill

Bottles															
	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-16. Correcting from MW-17 to MW-17R per collector. LBM 7/15/2020

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11	07/13/2020	13:08	1	Groundwater		BA13001
MW-12	07/13/2020	14:23	1	Groundwater		BA13002
MW-12V	07/13/2020	15:35	1	Groundwater		BA13003
FB-1	07/13/2020	16:05	1	Field Blank		BA13004
MW-13	07/14/2020	08:14	1	Groundwater		BA13005
MW-14	07/14/2020	09:14	1	Groundwater		BA13006
MW-14 dup	07/14/2020	09:14	1	Sample Duplicate		BA13007
MW-15	07/14/2020	10:23	1	Groundwater		BA13008
MW-16	07/14/2020	11:24	3	Groundwater		BA13009
MW-17R	07/14/2020	12:56	1	Groundwater		BA13010
MW-18	07/14/2020	14:30	1	Groundwater		BA13011
MW-19	07/15/2020	09:00	1	Groundwater		BA13012
EB-1	07/15/2020	09:30	1	Equipment Blank		BA13013

Relinquished By	Received By	Date/Time
		07/15/2020 11:41

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2	☑
Turbidity ID	7081-38476-1-1	Cooler Temp	N/A
Sample Event	1286	Thermometer ID	N/A
		pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA: 07/15/2020 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Landfill

Bottles															
	1	Radium	500 mL	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Rad MS/MSD collected @ MW-2

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	07/13/2020	11:30	1	Groundwater		BA13014
MW-1 Dup	07/13/2020	11:30	1	Sample Duplicate		BA13015
MW-2	07/13/2020	12:52	3	Groundwater		BA13016
MW-3	07/13/2020	14:35	1	Groundwater		BA13017
MW-5	07/14/2020	09:30	1	Groundwater		BA13018
MW-4	07/14/2020	10:55	1	Groundwater		BA13019
MW-6	07/14/2020	11:55	1	Groundwater		BA13020
MW-7	07/14/2020	13:25	1	Groundwater		BA13021
MW-10	07/14/2020	14:40	1	Groundwater		BA13022
MW-8	07/15/2020	09:25	1	Groundwater		BA13023
MW-20	07/15/2020	10:45	1	Groundwater		BA13024
FB-2	07/15/2020	11:05	1	Field Blank		BA13025

Relinquished By	Received By	Date/Time
		07/15/2020 13:17

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	N/A
Sample Event	1286	Thermometer ID	N/A
		pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-191092-1
Laboratory Sample Delivery Group: Gorgas Landfill 1286
Client Project/Site: CCR Plant Gorgas

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff

Cheyenne R Whitmire

Authorized for release by:
8/20/2020 3:07:31 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-191092-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-191092-1

RAD

Method 9315: Radium-226 Prep Batch 477408. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA13001 MW-11 (400-191092-1), BA13002 MW-12 (400-191092-2), BA13003 MW-12V (400-191092-3), BA13004 FB-1 (400-191092-4), BA13005 MW-13 (400-191092-5), BA13006 MW-14 (400-191092-6), BA13007 MW-14 DUP (400-191092-7), BA13008 MW-15 (400-191092-8), BA13009 MW-16 (400-191092-9), BA13009 MW-16 (400-191092-9[MS]), BA13009 MW-16 (400-191092-9[MSD]), BA13010 MW-17R (400-191092-10), BA13011 MW-18 (400-191092-11), BA13012 MW-19 (400-191092-12), BA13013 EB-1 (400-191092-13), (LCS 160-477408/1-A) and (MB 160-477408/22-A)

Method 9315: Radium-226 prep batch 160-477419. The following sample exhibited a negative result greater in magnitude than the 3 sigma TPU. This occurrence was evaluated and determined to be random in nature. Sporadic occurrences such as this are statistically expected. No further action is required. BA13025 FB-2 (400-191092-25)

Method 9315: Radium-226 prep batch 160-477419. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA13014 MW-1 (400-191092-14), BA13015 MW-1 DUP (400-191092-15), BA13016 MW-2 (400-191092-16), BA13016 MW-2 (400-191092-16[MS]), BA13016 MW-2 (400-191092-16[MSD]), BA13017 MW-3 (400-191092-17), BA13018 MW-5 (400-191092-18), BA13019 MW-4 (400-191092-19), BA13020 MW-6 (400-191092-20), BA13021 MW-7 (400-191092-21), BA13022 MW-10 (400-191092-22), BA13023 MW-8 (400-191092-23), BA13024 MW-20 (400-191092-24), BA13025 FB-2 (400-191092-25), (LCS 160-477419/1-A) and (MB 160-477419/18-A)

Method 9320: Radium-228 prep batch 160-477418. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA13001 MW-11 (400-191092-1), BA13002 MW-12 (400-191092-2), BA13003 MW-12V (400-191092-3), BA13004 FB-1 (400-191092-4), BA13005 MW-13 (400-191092-5), BA13006 MW-14 (400-191092-6), BA13007 MW-14 DUP (400-191092-7), BA13008 MW-15 (400-191092-8), BA13009 MW-16 (400-191092-9), BA13009 MW-16 (400-191092-9[MS]), BA13009 MW-16 (400-191092-9[MSD]), BA13010 MW-17R (400-191092-10), BA13011 MW-18 (400-191092-11), BA13012 MW-19 (400-191092-12), BA13013 EB-1 (400-191092-13), (LCS 160-477418/1-A) and (MB 160-477418/22-A)

Method 9320: Radium-228 Prep Batch 160-477420. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA13014 MW-1 (400-191092-14), BA13015 MW-1 DUP (400-191092-15), BA13016 MW-2 (400-191092-16), BA13016 MW-2 (400-191092-16[MS]), BA13016 MW-2 (400-191092-16[MSD]), BA13017 MW-3 (400-191092-17), BA13018 MW-5 (400-191092-18), BA13019 MW-4 (400-191092-19), BA13020 MW-6 (400-191092-20), BA13021 MW-7 (400-191092-21), BA13022 MW-10 (400-191092-22), BA13023 MW-8 (400-191092-23), BA13024 MW-20 (400-191092-24), BA13025 FB-2 (400-191092-25), (LCS 160-477420/1-A) and (MB 160-477420/18-A)

Method PrecSep_0: Radium 228 Prep Batch 160-477418. Sample 400-191092-2 was reduced due to yellow discoloration: BA13002 MW-12 (400-191092-2)

Method PrecSep-21: Radium 226 Prep Batch 160-477408. Sample 400-191092-2 was reduced due to yellow discoloration: BA13002 MW-12 (400-191092-2)

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-191092-1	BA13001 MW-11	Water	07/13/20 13:08	07/20/20 13:50	
400-191092-2	BA13002 MW-12	Water	07/13/20 14:23	07/20/20 13:50	
400-191092-3	BA13003 MW-12V	Water	07/13/20 15:35	07/20/20 13:50	
400-191092-4	BA13004 FB-1	Water	07/13/20 16:05	07/20/20 13:50	
400-191092-5	BA13005 MW-13	Water	07/14/20 08:14	07/20/20 13:50	
400-191092-6	BA13006 MW-14	Water	07/14/20 09:14	07/20/20 13:50	
400-191092-7	BA13007 MW-14 DUP	Water	07/14/20 09:14	07/20/20 13:50	
400-191092-8	BA13008 MW-15	Water	07/14/20 10:23	07/20/20 13:50	
400-191092-9	BA13009 MW-16	Water	07/14/20 11:24	07/20/20 13:50	
400-191092-10	BA13010 MW-17R	Water	07/14/20 12:56	07/20/20 13:50	
400-191092-11	BA13011 MW-18	Water	07/14/20 14:30	07/20/20 13:50	
400-191092-12	BA13012 MW-19	Water	07/15/20 09:00	07/20/20 13:50	
400-191092-13	BA13013 EB-1	Water	07/15/20 09:30	07/20/20 13:50	
400-191092-14	BA13014 MW-1	Water	07/13/20 11:30	07/20/20 13:50	
400-191092-15	BA13015 MW-1 DUP	Water	07/13/20 11:30	07/20/20 13:50	
400-191092-16	BA13016 MW-2	Water	07/13/20 12:52	07/20/20 13:50	
400-191092-17	BA13017 MW-3	Water	07/13/20 14:35	07/20/20 13:50	
400-191092-18	BA13018 MW-5	Water	07/14/20 09:30	07/20/20 13:50	
400-191092-19	BA13019 MW-4	Water	07/14/20 10:55	07/20/20 13:50	
400-191092-20	BA13020 MW-6	Water	07/14/20 11:55	07/20/20 13:50	
400-191092-21	BA13021 MW-7	Water	07/14/20 13:25	07/20/20 13:50	
400-191092-22	BA13022 MW-10	Water	07/14/20 14:40	07/20/20 13:50	
400-191092-23	BA13023 MW-8	Water	07/15/20 09:25	07/20/20 13:50	
400-191092-24	BA13024 MW-20	Water	07/15/20 10:45	07/20/20 13:50	
400-191092-25	BA13025 FB-2	Water	07/15/20 11:05	07/20/20 13:50	

Client Sample ID: BA13001 MW-11

Date Collected: 07/13/20 13:08
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.210		0.0783	0.0805	1.00	0.0699	pCi/L	07/24/20 13:21	08/18/20 05:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/24/20 13:21*	*08/18/20 05:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.456		0.256	0.260	1.00	0.386	pCi/L	07/24/20 14:13	08/05/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*
Y Carrier	*83.0*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.665		0.268	0.272	5.00	0.386	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13002 MW-12

Date Collected: 07/13/20 14:23
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.156		0.0912	0.0923	1.00	0.117	pCi/L	07/24/20 13:21	08/18/20 05:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*07/24/20 13:21*	*08/18/20 05:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.631		0.323	0.328	1.00	0.474	pCi/L	07/24/20 14:13	08/05/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*
Y Carrier	*83.7*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.787		0.336	0.341	5.00	0.474	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13003 MW-12V

Date Collected: 07/13/20 15:35
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.127		0.0680	0.0689	1.00	0.0804	pCi/L	07/24/20 13:21	08/18/20 05:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*07/24/20 13:21*	*08/18/20 05:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.667		0.286	0.292	1.00	0.406	pCi/L	07/24/20 14:13	08/05/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*
Y Carrier	*78.9*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.794		0.294	0.300	5.00	0.406	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13004 FB-1

Date Collected: 07/13/20 16:05
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00261	U	0.0387	0.0387	1.00	0.0818	pCi/L	07/24/20 13:21	08/18/20 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*07/24/20 13:21*	*08/18/20 07:29*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.403	U	0.281	0.283	1.00	0.437	pCi/L	07/24/20 14:13	08/05/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*
Y Carrier	*78.5*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.405	U	0.284	0.286	5.00	0.437	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13005 MW-13

Date Collected: 07/14/20 08:14
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0408	U	0.0637	0.0638	1.00	0.109	pCi/L	07/24/20 13:21	08/18/20 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*07/24/20 13:21*	*08/18/20 07:29*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.738**		0.255	0.264	1.00	0.329	pCi/L	07/24/20 14:13	08/05/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*
Y Carrier	*85.6*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.779**		0.263	0.272	5.00	0.329	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13006 MW-14

Date Collected: 07/14/20 09:14
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0769	U	0.0598	0.0602	1.00	0.0862	pCi/L	07/24/20 13:21	08/18/20 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*07/24/20 13:21*	*08/18/20 07:29*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.575**		0.249	0.255	1.00	0.352	pCi/L	07/24/20 14:13	08/05/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:22*	*1*
Y Carrier	*84.5*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.651**		0.256	0.262	5.00	0.352	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13007 MW-14 DUP

Date Collected: 07/14/20 09:14
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0693		0.0507	0.0511	1.00	0.0664	pCi/L	07/24/20 13:21	08/18/20 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*07/24/20 13:21*	*08/18/20 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422		0.268	0.271	1.00	0.413	pCi/L	07/24/20 14:13	08/05/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:22*	*1*
Y Carrier	*83.4*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.491		0.273	0.276	5.00	0.413	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13008 MW-15

Date Collected: 07/14/20 10:23
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.129**		0.0645	0.0655	1.00	0.0698	pCi/L	07/24/20 13:21	08/18/20 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/24/20 13:21*	*08/18/20 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.239	U	0.303	0.304	1.00	0.502	pCi/L	07/24/20 14:13	08/05/20 12:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:26*	*1*
Y Carrier	*83.4*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:26*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.369	U	0.310	0.311	5.00	0.502	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13009 MW-16

Date Collected: 07/14/20 11:24
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.119		0.0694	0.0702	1.00	0.0888	pCi/L	07/24/20 13:21	08/18/20 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*07/24/20 13:21*	*08/18/20 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.446		0.286	0.289	1.00	0.443	pCi/L	07/24/20 14:13	08/05/20 12:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:26*	*1*
Y Carrier	*84.1*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:26*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.565		0.294	0.297	5.00	0.443	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13010 MW-17R

Date Collected: 07/14/20 12:56
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.212		0.0919	0.0939	1.00	0.110	pCi/L	07/24/20 13:21	08/18/20 09:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*40 - 110*	*07/24/20 13:21*	*08/18/20 09:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.505		0.292	0.296	1.00	0.445	pCi/L	07/24/20 14:13	08/05/20 12:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*
Y Carrier	*82.6*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.717		0.306	0.311	5.00	0.445	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13011 MW-18

Date Collected: 07/14/20 14:30
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0158	U	0.0456	0.0456	1.00	0.0860	pCi/L	07/24/20 13:21	08/18/20 09:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/24/20 13:21*	*08/18/20 09:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.189	U	0.243	0.243	1.00	0.403	pCi/L	07/24/20 14:13	08/05/20 12:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*
Y Carrier	*86.0*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.205	U	0.247	0.247	5.00	0.403	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13012 MW-19

Date Collected: 07/15/20 09:00
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.114		0.0608	0.0617	1.00	0.0668	pCi/L	07/24/20 13:21	08/18/20 09:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*07/24/20 13:21*	*08/18/20 09:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.257	U	0.291	0.292	1.00	0.478	pCi/L	07/24/20 14:13	08/05/20 12:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*
Y Carrier	*82.2*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.371	U	0.297	0.298	5.00	0.478	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13013 EB-1

Date Collected: 07/15/20 09:30
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0138	U	0.0386	0.0386	1.00	0.0750	pCi/L	07/24/20 13:21	08/18/20 09:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*07/24/20 13:21*	*08/18/20 09:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0960	U	0.297	0.297	1.00	0.511	pCi/L	07/24/20 14:13	08/05/20 12:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*
Y Carrier	*84.9*		*40 - 110*	*07/24/20 14:13*	*08/05/20 12:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.110	U	0.299	0.299	5.00	0.511	pCi/L		08/19/20 12:30	1

Client Sample ID: BA13014 MW-1

Date Collected: 07/13/20 11:30
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00712	U	0.0578	0.0578	1.00	0.117	pCi/L	07/24/20 14:29	08/19/20 08:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.1*		*40 - 110*	*07/24/20 14:29*	*08/19/20 08:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.226	U	0.271	0.271	1.00	0.447	pCi/L	07/24/20 14:46	08/05/20 12:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.1*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*
Y Carrier	*83.0*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.219	U	0.277	0.277	5.00	0.447	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13015 MW-1 DUP

Date Collected: 07/13/20 11:30
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0667	U	0.0780	0.0782	1.00	0.128	pCi/L	07/24/20 14:29	08/19/20 08:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*07/24/20 14:29*	*08/19/20 08:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.456	U	0.306	0.309	1.00	0.476	pCi/L	07/24/20 14:46	08/05/20 12:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*
Y Carrier	*81.9*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.522**		0.316	0.319	5.00	0.476	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13016 MW-2

Date Collected: 07/13/20 12:52
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-16

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0460	U	0.0558	0.0559	1.00	0.0916	pCi/L	07/24/20 14:29	08/19/20 08:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*07/24/20 14:29*	*08/19/20 08:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0354	U	0.237	0.237	1.00	0.417	pCi/L	07/24/20 14:46	08/05/20 12:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*
Y Carrier	*85.6*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0814	U	0.243	0.244	5.00	0.417	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13017 MW-3

Date Collected: 07/13/20 14:35
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-17

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0656	U	0.0768	0.0770	1.00	0.126	pCi/L	07/24/20 14:29	08/19/20 10:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*07/24/20 14:29*	*08/19/20 10:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.464	U	0.308	0.311	1.00	0.480	pCi/L	07/24/20 14:46	08/05/20 12:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*
Y Carrier	*84.1*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.530**		0.317	0.320	5.00	0.480	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13018 MW-5

Date Collected: 07/14/20 09:30
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-18

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.110**		0.0694	0.0701	1.00	0.0932	pCi/L	07/24/20 14:29	08/19/20 10:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*07/24/20 14:29*	*08/19/20 10:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.411	U	0.273	0.275	1.00	0.421	pCi/L	07/24/20 14:46	08/05/20 12:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*
Y Carrier	*81.5*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.521**		0.282	0.284	5.00	0.421	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13019 MW-4

Date Collected: 07/14/20 10:55
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-19

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0296	U	0.0440	0.0440	1.00	0.0756	pCi/L	07/24/20 14:29	08/19/20 10:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*07/24/20 14:29*	*08/19/20 10:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.139	U	0.228	0.228	1.00	0.386	pCi/L	07/24/20 14:46	08/05/20 12:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*
Y Carrier	*82.6*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.169	U	0.232	0.232	5.00	0.386	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13020 MW-6

Date Collected: 07/14/20 11:55
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-20

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.358**		0.104	0.109	1.00	0.0784	pCi/L	07/24/20 14:29	08/19/20 13:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*40 - 110*	*07/24/20 14:29*	*08/19/20 13:29*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.219	U	0.274	0.274	1.00	0.453	pCi/L	07/24/20 14:46	08/05/20 12:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*
Y Carrier	*82.6*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.578**		0.293	0.295	5.00	0.453	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13021 MW-7

Date Collected: 07/14/20 13:25
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-21

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0324	U	0.0673	0.0674	1.00	0.120	pCi/L	07/24/20 14:29	08/19/20 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*07/24/20 14:29*	*08/19/20 13:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.402	U	0.274	0.277	1.00	0.426	pCi/L	07/24/20 14:46	08/05/20 12:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*
Y Carrier	*83.7*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.434**		0.282	0.285	5.00	0.426	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13022 MW-10

Date Collected: 07/14/20 14:40
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-22

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.107	U	0.0849	0.0854	1.00	0.128	pCi/L	07/24/20 14:29	08/19/20 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*07/24/20 14:29*	*08/19/20 13:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U	0.249	0.250	1.00	0.412	pCi/L	07/24/20 14:46	08/05/20 12:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*
Y Carrier	*83.4*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.314	U	0.263	0.264	5.00	0.412	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13023 MW-8

Date Collected: 07/15/20 09:25
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-23

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0229	U	0.0542	0.0543	1.00	0.0995	pCi/L	07/24/20 14:29	08/19/20 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*07/24/20 14:29*	*08/19/20 13:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.375	U	0.300	0.302	1.00	0.475	pCi/L	07/24/20 14:46	08/05/20 12:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*
Y Carrier	*75.1*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.398	U	0.305	0.307	5.00	0.475	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13024 MW-20

Date Collected: 07/15/20 10:45
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-24

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.188		0.0920	0.0936	1.00	0.118	pCi/L	07/24/20 14:29	08/19/20 17:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*07/24/20 14:29*	*08/19/20 17:09*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.771		0.296	0.305	1.00	0.404	pCi/L	07/24/20 14:46	08/05/20 12:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*
Y Carrier	*77.8*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.960		0.310	0.319	5.00	0.404	pCi/L		08/20/20 13:37	1

Client Sample ID: BA13025 FB-2

Date Collected: 07/15/20 11:05
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-25

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0813	U	0.0473	0.0479	1.00	0.130	pCi/L	07/24/20 14:29	08/19/20 17:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*07/24/20 14:29*	*08/19/20 17:09*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U	0.235	0.236	1.00	0.387	pCi/L	07/24/20 14:46	08/05/20 12:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:41*	*1*
Y Carrier	*83.4*		*40 - 110*	*07/24/20 14:46*	*08/05/20 12:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.125	U	0.240	0.241	5.00	0.387	pCi/L		08/20/20 13:37	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Client Sample ID: BA13001 MW-11

Lab Sample ID: 400-191092-1
Date Collected: 07/13/20 13:08
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 05:36	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478612	08/05/20 12:21	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13002 MW-12

Lab Sample ID: 400-191092-2
Date Collected: 07/13/20 14:23
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 05:37	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478612	08/05/20 12:21	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13003 MW-12V

Lab Sample ID: 400-191092-3
Date Collected: 07/13/20 15:35
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 05:37	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478612	08/05/20 12:21	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13004 FB-1

Lab Sample ID: 400-191092-4
Date Collected: 07/13/20 16:05
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 07:29	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478612	08/05/20 12:21	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Client Sample ID: BA13005 MW-13
Date Collected: 07/14/20 08:14
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 07:29	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478612	08/05/20 12:21	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13006 MW-14
Date Collected: 07/14/20 09:14
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 07:29	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478612	08/05/20 12:22	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13007 MW-14 DUP
Date Collected: 07/14/20 09:14
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 07:30	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478612	08/05/20 12:22	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13008 MW-15
Date Collected: 07/14/20 10:23
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 07:30	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:26	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Client Sample ID: BA13009 MW-16

Lab Sample ID: 400-191092-9
Date Collected: 07/14/20 11:24
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 07:30	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:26	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13010 MW-17R

Lab Sample ID: 400-191092-10
Date Collected: 07/14/20 12:56
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 09:16	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:27	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13011 MW-18

Lab Sample ID: 400-191092-11
Date Collected: 07/14/20 14:30
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 09:16	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:27	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13012 MW-19

Lab Sample ID: 400-191092-12
Date Collected: 07/15/20 09:00
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 09:17	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:27	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Client Sample ID: BA13013 EB-1

Lab Sample ID: 400-191092-13
Date Collected: 07/15/20 09:30
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477408	07/24/20 13:21	MNH	TAL SL
Total/NA	Analysis	9315		1	479720	08/18/20 09:17	CMM	TAL SL
Total/NA	Prep	PrecSep_0			477418	07/24/20 14:13	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:27	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/19/20 12:30	SMP	TAL SL

Client Sample ID: BA13014 MW-1

Lab Sample ID: 400-191092-14
Date Collected: 07/13/20 11:30
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 08:42	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:29	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13015 MW-1 DUP

Lab Sample ID: 400-191092-15
Date Collected: 07/13/20 11:30
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 08:42	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:29	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13016 MW-2

Lab Sample ID: 400-191092-16
Date Collected: 07/13/20 12:52
Matrix: Water
Date Received: 07/20/20 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 08:42	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:29	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Client Sample ID: BA13017 MW-3
Date Collected: 07/13/20 14:35
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 10:28	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478635	08/05/20 12:29	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13018 MW-5
Date Collected: 07/14/20 09:30
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 10:28	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13019 MW-4
Date Collected: 07/14/20 10:55
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479783	08/19/20 10:28	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13020 MW-6
Date Collected: 07/14/20 11:55
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479783	08/19/20 13:29	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Client Sample ID: BA13021 MW-7

Date Collected: 07/14/20 13:25
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 13:28	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13022 MW-10

Date Collected: 07/14/20 14:40
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 13:28	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13023 MW-8

Date Collected: 07/15/20 09:25
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-23

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 13:28	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Client Sample ID: BA13024 MW-20

Date Collected: 07/15/20 10:45
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 17:09	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Client Sample ID: BA13025 FB-2

Date Collected: 07/15/20 11:05
Date Received: 07/20/20 13:50

Lab Sample ID: 400-191092-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			477419	07/24/20 14:29	MNH	TAL SL
Total/NA	Analysis	9315		1	479784	08/19/20 17:09	JLC	TAL SL
Total/NA	Prep	PrecSep_0			477420	07/24/20 14:46	MNH	TAL SL
Total/NA	Analysis	9320		1	478613	08/05/20 12:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	479927	08/20/20 13:37	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 477408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-191092-1	BA13001 MW-11	Total/NA	Water	PrecSep-21	
400-191092-2	BA13002 MW-12	Total/NA	Water	PrecSep-21	
400-191092-3	BA13003 MW-12V	Total/NA	Water	PrecSep-21	
400-191092-4	BA13004 FB-1	Total/NA	Water	PrecSep-21	
400-191092-5	BA13005 MW-13	Total/NA	Water	PrecSep-21	
400-191092-6	BA13006 MW-14	Total/NA	Water	PrecSep-21	
400-191092-7	BA13007 MW-14 DUP	Total/NA	Water	PrecSep-21	
400-191092-8	BA13008 MW-15	Total/NA	Water	PrecSep-21	
400-191092-9	BA13009 MW-16	Total/NA	Water	PrecSep-21	
400-191092-10	BA13010 MW-17R	Total/NA	Water	PrecSep-21	
400-191092-11	BA13011 MW-18	Total/NA	Water	PrecSep-21	
400-191092-12	BA13012 MW-19	Total/NA	Water	PrecSep-21	
400-191092-13	BA13013 EB-1	Total/NA	Water	PrecSep-21	
MB 160-477408/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-477408/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-191092-9MS	BA13009 MW-16	Total/NA	Water	PrecSep-21	
400-191092-9MSD	BA13009 MW-16	Total/NA	Water	PrecSep-21	

Prep Batch: 477418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-191092-1	BA13001 MW-11	Total/NA	Water	PrecSep_0	
400-191092-2	BA13002 MW-12	Total/NA	Water	PrecSep_0	
400-191092-3	BA13003 MW-12V	Total/NA	Water	PrecSep_0	
400-191092-4	BA13004 FB-1	Total/NA	Water	PrecSep_0	
400-191092-5	BA13005 MW-13	Total/NA	Water	PrecSep_0	
400-191092-6	BA13006 MW-14	Total/NA	Water	PrecSep_0	
400-191092-7	BA13007 MW-14 DUP	Total/NA	Water	PrecSep_0	
400-191092-8	BA13008 MW-15	Total/NA	Water	PrecSep_0	
400-191092-9	BA13009 MW-16	Total/NA	Water	PrecSep_0	
400-191092-10	BA13010 MW-17R	Total/NA	Water	PrecSep_0	
400-191092-11	BA13011 MW-18	Total/NA	Water	PrecSep_0	
400-191092-12	BA13012 MW-19	Total/NA	Water	PrecSep_0	
400-191092-13	BA13013 EB-1	Total/NA	Water	PrecSep_0	
MB 160-477418/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-477418/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-191092-9MS	BA13009 MW-16	Total/NA	Water	PrecSep_0	
400-191092-9MSD	BA13009 MW-16	Total/NA	Water	PrecSep_0	

Prep Batch: 477419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-191092-14	BA13014 MW-1	Total/NA	Water	PrecSep-21	
400-191092-15	BA13015 MW-1 DUP	Total/NA	Water	PrecSep-21	
400-191092-16	BA13016 MW-2	Total/NA	Water	PrecSep-21	
400-191092-17	BA13017 MW-3	Total/NA	Water	PrecSep-21	
400-191092-18	BA13018 MW-5	Total/NA	Water	PrecSep-21	
400-191092-19	BA13019 MW-4	Total/NA	Water	PrecSep-21	
400-191092-20	BA13020 MW-6	Total/NA	Water	PrecSep-21	
400-191092-21	BA13021 MW-7	Total/NA	Water	PrecSep-21	
400-191092-22	BA13022 MW-10	Total/NA	Water	PrecSep-21	
400-191092-23	BA13023 MW-8	Total/NA	Water	PrecSep-21	
400-191092-24	BA13024 MW-20	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 477419 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-191092-25	BA13025 FB-2	Total/NA	Water	PrecSep-21	
MB 160-477419/18-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-477419/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-191092-16 MS	BA13016 MW-2	Total/NA	Water	PrecSep-21	
400-191092-16 MSD	BA13016 MW-2	Total/NA	Water	PrecSep-21	

Prep Batch: 477420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-191092-14	BA13014 MW-1	Total/NA	Water	PrecSep_0	
400-191092-15	BA13015 MW-1 DUP	Total/NA	Water	PrecSep_0	
400-191092-16	BA13016 MW-2	Total/NA	Water	PrecSep_0	
400-191092-17	BA13017 MW-3	Total/NA	Water	PrecSep_0	
400-191092-18	BA13018 MW-5	Total/NA	Water	PrecSep_0	
400-191092-19	BA13019 MW-4	Total/NA	Water	PrecSep_0	
400-191092-20	BA13020 MW-6	Total/NA	Water	PrecSep_0	
400-191092-21	BA13021 MW-7	Total/NA	Water	PrecSep_0	
400-191092-22	BA13022 MW-10	Total/NA	Water	PrecSep_0	
400-191092-23	BA13023 MW-8	Total/NA	Water	PrecSep_0	
400-191092-24	BA13024 MW-20	Total/NA	Water	PrecSep_0	
400-191092-25	BA13025 FB-2	Total/NA	Water	PrecSep_0	
MB 160-477420/18-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-477420/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-191092-16 MS	BA13016 MW-2	Total/NA	Water	PrecSep_0	
400-191092-16 MSD	BA13016 MW-2	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-477408/22-A
Matrix: Water
Analysis Batch: 479720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477408

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.005252	U	0.0455	0.0455	1.00	0.0920	pCi/L	07/24/20 13:21	08/18/20 09:18	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*07/24/20 13:21*	*08/18/20 09:18*	*1*

Lab Sample ID: LCS 160-477408/1-A
Matrix: Water
Analysis Batch: 479720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 477408

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.30		1.07	1.00	0.0841	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*89.0*		*40 - 110*

Lab Sample ID: 400-191092-9MS
Matrix: Water
Analysis Batch: 479720

Client Sample ID: BA13009 MW-16
Prep Type: Total/NA
Prep Batch: 477408

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.119		11.3	10.48		1.07	1.00	0.0792	pCi/L	91	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*100*		*40 - 110*

Lab Sample ID: 400-191092-9MSD
Matrix: Water
Analysis Batch: 479720

Client Sample ID: BA13009 MW-16
Prep Type: Total/NA
Prep Batch: 477408

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.119		11.4	10.37		1.06	1.00	0.0764	pCi/L	90	75 - 138	0.05	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*

Lab Sample ID: MB 160-477419/18-A
Matrix: Water
Analysis Batch: 479938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477419

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05433	U	0.0523	0.0525	1.00	0.0796	pCi/L	07/24/20 14:29	08/19/20 17:33	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-477419/18-A
Matrix: Water
Analysis Batch: 479938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477419

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110	07/24/20 14:29	08/19/20 17:33	1

Lab Sample ID: LCS 160-477419/1-A
Matrix: Water
Analysis Batch: 479720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 477419

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.94		1.13	1.00	0.0920	pCi/L	96	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.7		40 - 110

Lab Sample ID: 400-191092-16 MS
Matrix: Water
Analysis Batch: 479783

Client Sample ID: BA13016 MW-2
Prep Type: Total/NA
Prep Batch: 477419

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.0460	U	11.4	11.32		1.15	1.00	0.0762	pCi/L	99	75 - 138		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	94.4		40 - 110

Lab Sample ID: 400-191092-16 MSD
Matrix: Water
Analysis Batch: 479784

Client Sample ID: BA13016 MW-2
Prep Type: Total/NA
Prep Batch: 477419

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.0460	U	11.3	10.90		1.13	1.00	0.124	pCi/L	96	75 - 138	0.18	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	89.6		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-477418/22-A
Matrix: Water
Analysis Batch: 478635

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477418

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.06750	U	0.288	0.288	1.00	0.501	pCi/L	07/24/20 14:13	08/05/20 12:27	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110	07/24/20 14:13	08/05/20 12:27	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-477418/22-A
Matrix: Water
Analysis Batch: 478635

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477418

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	81.1		40 - 110	07/24/20 14:13	08/05/20 12:27	1

Lab Sample ID: LCS 160-477418/1-A
Matrix: Water
Analysis Batch: 478612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 477418

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.2	12.03		1.38	1.00	0.553	pCi/L	118	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	89.0		40 - 110
Y Carrier	81.9		40 - 110

Lab Sample ID: 400-191092-9MS
Matrix: Water
Analysis Batch: 478635

Client Sample ID: BA13009 MW-16
Prep Type: Total/NA
Prep Batch: 477418

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.446		10.2	12.52		1.39	1.00	0.467	pCi/L	118	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: 400-191092-9MSD
Matrix: Water
Analysis Batch: 478635

Client Sample ID: BA13009 MW-16
Prep Type: Total/NA
Prep Batch: 477418

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.446		10.2	12.64		1.39	1.00	0.456	pCi/L	119	45 - 150	0.04	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	85.6		40 - 110

Lab Sample ID: MB 160-477420/18-A
Matrix: Water
Analysis Batch: 478613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477420

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1345	U	0.212	0.213	1.00	0.407	pCi/L	07/24/20 14:46	08/05/20 12:41	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-477420/18-A
Matrix: Water
Analysis Batch: 478613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477420

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110	07/24/20 14:46	08/05/20 12:41	1
Y Carrier	86.7		40 - 110	07/24/20 14:46	08/05/20 12:41	1

Lab Sample ID: LCS 160-477420/1-A
Matrix: Water
Analysis Batch: 478635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 477420

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.2	11.67		1.35	1.00	0.471	pCi/L	114	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.7		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 400-191092-16 MS
Matrix: Water
Analysis Batch: 478635

Client Sample ID: BA13016 MW-2
Prep Type: Total/NA
Prep Batch: 477420

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.0354	U	10.2	13.39		1.48	1.00	0.437	pCi/L	131	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	94.4		40 - 110
Y Carrier	83.0		40 - 110

Lab Sample ID: 400-191092-16 MSD
Matrix: Water
Analysis Batch: 478635

Client Sample ID: BA13016 MW-2
Prep Type: Total/NA
Prep Batch: 477420

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.0354	U	10.2	13.75		1.53	1.00	0.477	pCi/L	134	45 - 150	0.12	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	89.6		40 - 110
Y Carrier	83.4		40 - 110

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 2
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Gorgas Landfill 1286	SSOW#:			

Analysis Requested

400-191092 COC

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA13001	7/13/20	13:08	G	Water						X	1	MW-11
BA13002	7/13/20	14:23	G	Water						X	1	MW-12
BA13003	7/13/20	15:35	G	Water						X	1	MW-12V
BA13004	7/13/20	16:05	G	Water						X	1	FB-1 (Field Blank)
BA13005	7/14/20	08:14	G	Water						X	1	MW-13
BA13006	7/14/20	09:14	G	Water						X	1	MW-14
BA13007	7/14/20	09:14	G	Water						X	1	MW-14 DUP (Sample Duplicate)
BA13008	7/14/20	10:23	G	Water						X	1	MW-15
BA13009	7/14/20	11:24	G	Water		X				X	3	MW-16
BA13010	7/14/20	12:56	G	Water						X	1	MW-17R
BA13011	7/14/20	14:30	G	Water						X	1	MW-18
BA13012	7/15/20	09:00	G	Water						X	1	MW-19
BA13013	7/15/20	09:30	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) 43599	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 07/16/2020 13:00	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 7-20-20 1350	Company
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

33.7°C, 31.1°C DR7

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: TJ Daugherty	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 2 of 2
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Gorgas Landfill 1286	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA13014	7/13/20	11:30	G	Water						X	1	MW-1
BA13015	7/13/20	11:30	G	Water						X	1	MW-1 DUP (Sample Duplicate)
BA13016	7/13/20	12:52	G	Water		X				X	3	MW-2
BA13017	7/13/20	14:35	G	Water						X	1	MW-3
BA13018	7/14/20	09:30	G	Water						X	1	MW-5
BA13019	7/14/20	10:55	G	Water						X	1	MW-4
BA13020	7/14/20	11:55	G	Water						X	1	MW-6
BA13021	7/14/20	13:25	G	Water						X	1	MW-7
BA13022	7/14/20	14:40	G	Water						X	1	MW-10
BA13023	7/15/20	09:25	G	Water						X	1	MW-8
BA13024	7/15/20	10:45	G	Water						X	1	MW-20
BA13025	7/15/20	11:05	G	Water						X	1	FB-2 (Field Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 43599 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by: Laura Midkiff	Date/Time: 07/16/2020 13:00	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 7-20-20 1350	Company
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

33.7C, 31.7C IR7

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-191092-1
SDG Number: Gorgas Landfill 1286

Login Number: 191092
List Number: 1
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	33.7°C, 31.7°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-191092-1
SDG Number: Gorgas Landfill 1286

Login Number: 191092
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 07/21/20 02:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

Job ID: 400-191092-1
SDG: Gorgas Landfill 1286

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	07-01-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-11	7/13/2020 12:30	Conductivity	2421.47	uS/cm
MW-11	7/13/2020 12:30	DO	0.72	mg/L
MW-11	7/13/2020 12:30	Depth to Water Detail	103.95	ft
MW-11	7/13/2020 12:30	Oxidation Reduction Potention	128.57	mv
MW-11	7/13/2020 12:30	pH	6.7	pH
MW-11	7/13/2020 12:30	Temperature	22.14	C
MW-11	7/13/2020 12:30	Turbidity	2.39	NTU
MW-11	7/13/2020 12:35	Conductivity	2749.31	uS/cm
MW-11	7/13/2020 12:35	DO	0.39	mg/L
MW-11	7/13/2020 12:35	Depth to Water Detail	106.79	ft
MW-11	7/13/2020 12:35	Oxidation Reduction Potention	93.14	mv
MW-11	7/13/2020 12:35	pH	6.71	pH
MW-11	7/13/2020 12:35	Temperature	21.67	C
MW-11	7/13/2020 12:35	Turbidity	2.09	NTU
MW-11	7/13/2020 12:40	Conductivity	2756.44	uS/cm
MW-11	7/13/2020 12:40	DO	0.54	mg/L
MW-11	7/13/2020 12:40	Depth to Water Detail	107.35	ft
MW-11	7/13/2020 12:40	Oxidation Reduction Potention	53.66	mv
MW-11	7/13/2020 12:40	pH	6.72	pH
MW-11	7/13/2020 12:40	Temperature	23.85	C
MW-11	7/13/2020 12:40	Turbidity	0.77	NTU
MW-11	7/13/2020 12:45	Conductivity	2744.7	uS/cm
MW-11	7/13/2020 12:45	DO	0.63	mg/L
MW-11	7/13/2020 12:45	Depth to Water Detail	107.72	ft
MW-11	7/13/2020 12:45	Oxidation Reduction Potention	24.92	mv
MW-11	7/13/2020 12:45	pH	6.72	pH
MW-11	7/13/2020 12:45	Temperature	23.66	C
MW-11	7/13/2020 12:45	Turbidity	0.59	NTU
MW-11	7/13/2020 12:50	Conductivity	2753.27	uS/cm
MW-11	7/13/2020 12:50	DO	0.71	mg/L
MW-11	7/13/2020 12:50	Depth to Water Detail	107.95	ft
MW-11	7/13/2020 12:50	Oxidation Reduction Potention	8.27	mv
MW-11	7/13/2020 12:50	pH	6.72	pH
MW-11	7/13/2020 12:50	Temperature	24.71	C
MW-11	7/13/2020 12:50	Turbidity	0.6	NTU
MW-11	7/13/2020 12:55	Conductivity	2733.65	uS/cm
MW-11	7/13/2020 12:55	DO	0.72	mg/L
MW-11	7/13/2020 12:55	Depth to Water Detail	108.18	ft
MW-11	7/13/2020 12:55	Oxidation Reduction Potention	-1.77	mv
MW-11	7/13/2020 12:55	pH	6.72	pH
MW-11	7/13/2020 12:55	Temperature	24.51	C
MW-11	7/13/2020 12:55	Turbidity	0.48	NTU
MW-11	7/13/2020 13:00	Conductivity	2730.13	uS/cm
MW-11	7/13/2020 13:00	DO	0.72	mg/L

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-11	7/13/2020 13:00	Depth to Water Detail	108.33	ft
MW-11	7/13/2020 13:00	Oxidation Reduction Potention	-8.39	mv
MW-11	7/13/2020 13:00	pH	6.71	pH
MW-11	7/13/2020 13:00	Temperature	24.9	C
MW-11	7/13/2020 13:00	Turbidity	0.52	NTU
MW-11	7/13/2020 13:05	Conductivity	2712.32	uS/cm
MW-11	7/13/2020 13:05	DO	0.71	mg/L
MW-11	7/13/2020 13:05	Depth to Water Detail	108.45	ft
MW-11	7/13/2020 13:05	Oxidation Reduction Potention	-12.52	mv
MW-11	7/13/2020 13:05	pH	6.71	pH
MW-11	7/13/2020 13:05	Temperature	24.28	C
MW-11	7/13/2020 13:05	Turbidity	0.39	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-12	7/13/2020 13:59	Conductivity	2999.32	uS/cm
MW-12	7/13/2020 13:59	DO	2.62	mg/L
MW-12	7/13/2020 13:59	Depth to Water Detail	154.97	ft
MW-12	7/13/2020 13:59	Oxidation Reduction Potention	83.23	mv
MW-12	7/13/2020 13:59	pH	5.44	pH
MW-12	7/13/2020 13:59	Temperature	23.59	C
MW-12	7/13/2020 13:59	Turbidity	12.55	NTU
MW-12	7/13/2020 14:04	Conductivity	2968.65	uS/cm
MW-12	7/13/2020 14:04	DO	1.19	mg/L
MW-12	7/13/2020 14:04	Depth to Water Detail	154.97	ft
MW-12	7/13/2020 14:04	Oxidation Reduction Potention	64.25	mv
MW-12	7/13/2020 14:04	pH	5.57	pH
MW-12	7/13/2020 14:04	Temperature	23.13	C
MW-12	7/13/2020 14:04	Turbidity	11	NTU
MW-12	7/13/2020 14:09	Conductivity	2930.11	uS/cm
MW-12	7/13/2020 14:09	DO	0.85	mg/L
MW-12	7/13/2020 14:09	Depth to Water Detail	154.97	ft
MW-12	7/13/2020 14:09	Oxidation Reduction Potention	53.79	mv
MW-12	7/13/2020 14:09	pH	5.59	pH
MW-12	7/13/2020 14:09	Temperature	23.28	C
MW-12	7/13/2020 14:09	Turbidity	8.64	NTU
MW-12	7/13/2020 14:14	Conductivity	3022.58	uS/cm
MW-12	7/13/2020 14:14	DO	0.76	mg/L
MW-12	7/13/2020 14:14	Depth to Water Detail	154.97	ft
MW-12	7/13/2020 14:14	Oxidation Reduction Potention	47.91	mv
MW-12	7/13/2020 14:14	pH	5.61	pH
MW-12	7/13/2020 14:14	Temperature	23.32	C
MW-12	7/13/2020 14:14	Turbidity	5.79	NTU
MW-12	7/13/2020 14:19	Conductivity	2898.24	uS/cm
MW-12	7/13/2020 14:19	DO	0.7	mg/L
MW-12	7/13/2020 14:19	Depth to Water Detail	154.97	ft
MW-12	7/13/2020 14:19	Oxidation Reduction Potention	44.19	mv
MW-12	7/13/2020 14:19	pH	5.62	pH
MW-12	7/13/2020 14:19	Temperature	23.17	C
MW-12	7/13/2020 14:19	Turbidity	3.89	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-12V	7/13/2020 15:06	Conductivity	2605.14	uS/cm
MW-12V	7/13/2020 15:06	DO	0.64	mg/L
MW-12V	7/13/2020 15:06	Depth to Water Detail	156.24	ft
MW-12V	7/13/2020 15:06	Oxidation Reduction Potention	-50.98	mv
MW-12V	7/13/2020 15:06	pH	6.56	pH
MW-12V	7/13/2020 15:06	Temperature	22.34	C
MW-12V	7/13/2020 15:06	Turbidity	5.37	NTU
MW-12V	7/13/2020 15:11	Conductivity	2596.09	uS/cm
MW-12V	7/13/2020 15:11	DO	0.5	mg/L
MW-12V	7/13/2020 15:11	Depth to Water Detail	156.44	ft
MW-12V	7/13/2020 15:11	Oxidation Reduction Potention	-50.45	mv
MW-12V	7/13/2020 15:11	pH	6.56	pH
MW-12V	7/13/2020 15:11	Temperature	22.59	C
MW-12V	7/13/2020 15:11	Turbidity	2.01	NTU
MW-12V	7/13/2020 15:16	Conductivity	2588.71	uS/cm
MW-12V	7/13/2020 15:16	DO	0.47	mg/L
MW-12V	7/13/2020 15:16	Depth to Water Detail	156.65	ft
MW-12V	7/13/2020 15:16	Oxidation Reduction Potention	-50.42	mv
MW-12V	7/13/2020 15:16	pH	6.57	pH
MW-12V	7/13/2020 15:16	Temperature	22.6	C
MW-12V	7/13/2020 15:16	Turbidity	1.23	NTU
MW-12V	7/13/2020 15:21	Conductivity	2592.39	uS/cm
MW-12V	7/13/2020 15:21	DO	0.5	mg/L
MW-12V	7/13/2020 15:21	Depth to Water Detail	156.82	ft
MW-12V	7/13/2020 15:21	Oxidation Reduction Potention	-50.58	mv
MW-12V	7/13/2020 15:21	pH	6.58	pH
MW-12V	7/13/2020 15:21	Temperature	22.48	C
MW-12V	7/13/2020 15:21	Turbidity	0.99	NTU
MW-12V	7/13/2020 15:26	Conductivity	2590.17	uS/cm
MW-12V	7/13/2020 15:26	DO	0.53	mg/L
MW-12V	7/13/2020 15:26	Depth to Water Detail	156.98	ft
MW-12V	7/13/2020 15:26	Oxidation Reduction Potention	-51.13	mv
MW-12V	7/13/2020 15:26	pH	6.6	pH
MW-12V	7/13/2020 15:26	Temperature	22.58	C
MW-12V	7/13/2020 15:26	Turbidity	0.81	NTU
MW-12V	7/13/2020 15:31	Conductivity	2590.28	uS/cm
MW-12V	7/13/2020 15:31	DO	0.57	mg/L
MW-12V	7/13/2020 15:31	Depth to Water Detail	157.07	ft
MW-12V	7/13/2020 15:31	Oxidation Reduction Potention	-51.45	mv
MW-12V	7/13/2020 15:31	pH	6.61	pH
MW-12V	7/13/2020 15:31	Temperature	22.38	C
MW-12V	7/13/2020 15:31	Turbidity	0.78	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-13	7/14/2020 7:55	Conductivity	2953.16	uS/cm
MW-13	7/14/2020 7:55	DO	1.24	mg/L
MW-13	7/14/2020 7:55	Depth to Water Detail	95.13	ft
MW-13	7/14/2020 7:55	Oxidation Reduction Potention	132.07	mv
MW-13	7/14/2020 7:55	pH	6.38	pH
MW-13	7/14/2020 7:55	Temperature	20.75	C
MW-13	7/14/2020 7:55	Turbidity	0.96	NTU
MW-13	7/14/2020 8:00	Conductivity	2954.89	uS/cm
MW-13	7/14/2020 8:00	DO	1.14	mg/L
MW-13	7/14/2020 8:00	Depth to Water Detail	95.13	ft
MW-13	7/14/2020 8:00	Oxidation Reduction Potention	134.57	mv
MW-13	7/14/2020 8:00	pH	6.37	pH
MW-13	7/14/2020 8:00	Temperature	21.96	C
MW-13	7/14/2020 8:00	Turbidity	0.82	NTU
MW-13	7/14/2020 8:05	Conductivity	2923.68	uS/cm
MW-13	7/14/2020 8:05	DO	0.73	mg/L
MW-13	7/14/2020 8:05	Depth to Water Detail	95.13	ft
MW-13	7/14/2020 8:05	Oxidation Reduction Potention	133.11	mv
MW-13	7/14/2020 8:05	pH	6.36	pH
MW-13	7/14/2020 8:05	Temperature	20.78	C
MW-13	7/14/2020 8:05	Turbidity	0.78	NTU
MW-13	7/14/2020 8:10	Conductivity	2908.55	uS/cm
MW-13	7/14/2020 8:10	DO	0.46	mg/L
MW-13	7/14/2020 8:10	Depth to Water Detail	95.13	ft
MW-13	7/14/2020 8:10	Oxidation Reduction Potention	132	mv
MW-13	7/14/2020 8:10	pH	6.33	pH
MW-13	7/14/2020 8:10	Temperature	20.66	C
MW-13	7/14/2020 8:10	Turbidity	0.81	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-14	7/14/2020 8:56	Conductivity	3120	uS/cm
MW-14	7/14/2020 8:56	DO	0.98	mg/L
MW-14	7/14/2020 8:56	Depth to Water Detail	89.31	ft
MW-14	7/14/2020 8:56	Oxidation Reduction Potention	113.03	mv
MW-14	7/14/2020 8:56	pH	6.36	pH
MW-14	7/14/2020 8:56	Temperature	20.18	C
MW-14	7/14/2020 8:56	Turbidity	3.87	NTU
MW-14	7/14/2020 9:01	Conductivity	3123.65	uS/cm
MW-14	7/14/2020 9:01	DO	0.83	mg/L
MW-14	7/14/2020 9:01	Depth to Water Detail	89.31	ft
MW-14	7/14/2020 9:01	Oxidation Reduction Potention	109.16	mv
MW-14	7/14/2020 9:01	pH	6.35	pH
MW-14	7/14/2020 9:01	Temperature	20.12	C
MW-14	7/14/2020 9:01	Turbidity	3.39	NTU
MW-14	7/14/2020 9:06	Conductivity	3110.61	uS/cm
MW-14	7/14/2020 9:06	DO	0.77	mg/L
MW-14	7/14/2020 9:06	Depth to Water Detail	89.31	ft
MW-14	7/14/2020 9:06	Oxidation Reduction Potention	104.31	mv
MW-14	7/14/2020 9:06	pH	6.36	pH
MW-14	7/14/2020 9:06	Temperature	20.22	C
MW-14	7/14/2020 9:06	Turbidity	1.12	NTU
MW-14	7/14/2020 9:11	Conductivity	3090.49	uS/cm
MW-14	7/14/2020 9:11	DO	0.74	mg/L
MW-14	7/14/2020 9:11	Depth to Water Detail	89.31	ft
MW-14	7/14/2020 9:11	Oxidation Reduction Potention	99.15	mv
MW-14	7/14/2020 9:11	pH	6.37	pH
MW-14	7/14/2020 9:11	Temperature	20.25	C
MW-14	7/14/2020 9:11	Turbidity	0.95	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-15	7/14/2020 10:04	Conductivity	2720.19	uS/cm
MW-15	7/14/2020 10:04	DO	0.45	mg/L
MW-15	7/14/2020 10:04	Depth to Water Detail	67.88	ft
MW-15	7/14/2020 10:04	Oxidation Reduction Potention	82.5	mv
MW-15	7/14/2020 10:04	pH	6.03	pH
MW-15	7/14/2020 10:04	Temperature	20.04	C
MW-15	7/14/2020 10:04	Turbidity	4.06	NTU
MW-15	7/14/2020 10:09	Conductivity	2692.99	uS/cm
MW-15	7/14/2020 10:09	DO	0.53	mg/L
MW-15	7/14/2020 10:09	Depth to Water Detail	67.91	ft
MW-15	7/14/2020 10:09	Oxidation Reduction Potention	77.91	mv
MW-15	7/14/2020 10:09	pH	6.01	pH
MW-15	7/14/2020 10:09	Temperature	20	C
MW-15	7/14/2020 10:09	Turbidity	4.04	NTU
MW-15	7/14/2020 10:14	Conductivity	2702.73	uS/cm
MW-15	7/14/2020 10:14	DO	0.39	mg/L
MW-15	7/14/2020 10:14	Depth to Water Detail	67.93	ft
MW-15	7/14/2020 10:14	Oxidation Reduction Potention	72.49	mv
MW-15	7/14/2020 10:14	pH	6.03	pH
MW-15	7/14/2020 10:14	Temperature	20.07	C
MW-15	7/14/2020 10:14	Turbidity	3.04	NTU
MW-15	7/14/2020 10:19	Conductivity	2710.62	uS/cm
MW-15	7/14/2020 10:19	DO	0.27	mg/L
MW-15	7/14/2020 10:19	Depth to Water Detail	67.96	ft
MW-15	7/14/2020 10:19	Oxidation Reduction Potention	67.04	mv
MW-15	7/14/2020 10:19	pH	6.05	pH
MW-15	7/14/2020 10:19	Temperature	19.96	C
MW-15	7/14/2020 10:19	Turbidity	2.75	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-16	7/14/2020 11:05	Conductivity	2565.54	uS/cm
MW-16	7/14/2020 11:05	DO	0.45	mg/L
MW-16	7/14/2020 11:05	Depth to Water Detail	91.55	ft
MW-16	7/14/2020 11:05	Oxidation Reduction Potention	34.6	mv
MW-16	7/14/2020 11:05	pH	6.45	pH
MW-16	7/14/2020 11:05	Temperature	20.57	C
MW-16	7/14/2020 11:05	Turbidity	1.14	NTU
MW-16	7/14/2020 11:10	Conductivity	2558.96	uS/cm
MW-16	7/14/2020 11:10	DO	0.28	mg/L
MW-16	7/14/2020 11:10	Depth to Water Detail	91.55	ft
MW-16	7/14/2020 11:10	Oxidation Reduction Potention	28.2	mv
MW-16	7/14/2020 11:10	pH	6.43	pH
MW-16	7/14/2020 11:10	Temperature	20.68	C
MW-16	7/14/2020 11:10	Turbidity	0.92	NTU
MW-16	7/14/2020 11:15	Conductivity	2555.81	uS/cm
MW-16	7/14/2020 11:15	DO	0.24	mg/L
MW-16	7/14/2020 11:15	Depth to Water Detail	91.55	ft
MW-16	7/14/2020 11:15	Oxidation Reduction Potention	24.38	mv
MW-16	7/14/2020 11:15	pH	6.45	pH
MW-16	7/14/2020 11:15	Temperature	20.62	C
MW-16	7/14/2020 11:15	Turbidity	0.93	NTU
MW-16	7/14/2020 11:20	Conductivity	2555.16	uS/cm
MW-16	7/14/2020 11:20	DO	0.22	mg/L
MW-16	7/14/2020 11:20	Depth to Water Detail	91.55	ft
MW-16	7/14/2020 11:20	Oxidation Reduction Potention	22.3	mv
MW-16	7/14/2020 11:20	pH	6.43	pH
MW-16	7/14/2020 11:20	Temperature	20.67	C
MW-16	7/14/2020 11:20	Turbidity	1.27	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-17R	7/14/2020 12:23	Conductivity	3588.06	uS/cm
MW-17R	7/14/2020 12:23	DO	1.5	mg/L
MW-17R	7/14/2020 12:23	Depth to Water Detail	126.71	ft
MW-17R	7/14/2020 12:23	Oxidation Reduction Potention	92.31	mv
MW-17R	7/14/2020 12:23	pH	5.44	pH
MW-17R	7/14/2020 12:23	Temperature	23.36	C
MW-17R	7/14/2020 12:23	Turbidity	2.11	NTU
MW-17R	7/14/2020 12:28	Conductivity	3584.3	uS/cm
MW-17R	7/14/2020 12:28	DO	0.92	mg/L
MW-17R	7/14/2020 12:28	Depth to Water Detail	126.71	ft
MW-17R	7/14/2020 12:28	Oxidation Reduction Potention	88.91	mv
MW-17R	7/14/2020 12:28	pH	5.45	pH
MW-17R	7/14/2020 12:28	Temperature	23.27	C
MW-17R	7/14/2020 12:28	Turbidity	1.87	NTU
MW-17R	7/14/2020 12:33	Conductivity	3561.34	uS/cm
MW-17R	7/14/2020 12:33	DO	0.8	mg/L
MW-17R	7/14/2020 12:33	Depth to Water Detail	126.71	ft
MW-17R	7/14/2020 12:33	Oxidation Reduction Potention	81.84	mv
MW-17R	7/14/2020 12:33	pH	5.53	pH
MW-17R	7/14/2020 12:33	Temperature	23.67	C
MW-17R	7/14/2020 12:33	Turbidity	1.96	NTU
MW-17R	7/14/2020 12:38	Conductivity	3542.47	uS/cm
MW-17R	7/14/2020 12:38	DO	0.78	mg/L
MW-17R	7/14/2020 12:38	Depth to Water Detail	126.71	ft
MW-17R	7/14/2020 12:38	Oxidation Reduction Potention	72.28	mv
MW-17R	7/14/2020 12:38	pH	5.65	pH
MW-17R	7/14/2020 12:38	Temperature	23.76	C
MW-17R	7/14/2020 12:38	Turbidity	1.75	NTU
MW-17R	7/14/2020 12:43	Conductivity	3526.74	uS/cm
MW-17R	7/14/2020 12:43	DO	0.77	mg/L
MW-17R	7/14/2020 12:43	Depth to Water Detail	126.71	ft
MW-17R	7/14/2020 12:43	Oxidation Reduction Potention	63.27	mv
MW-17R	7/14/2020 12:43	pH	5.76	pH
MW-17R	7/14/2020 12:43	Temperature	23.93	C
MW-17R	7/14/2020 12:43	Turbidity	1.89	NTU
MW-17R	7/14/2020 12:48	Conductivity	3512.38	uS/cm
MW-17R	7/14/2020 12:48	DO	0.75	mg/L
MW-17R	7/14/2020 12:48	Depth to Water Detail	126.71	ft
MW-17R	7/14/2020 12:48	Oxidation Reduction Potention	55.44	mv
MW-17R	7/14/2020 12:48	pH	5.85	pH
MW-17R	7/14/2020 12:48	Temperature	23.82	C
MW-17R	7/14/2020 12:48	Turbidity	1.44	NTU
MW-17R	7/14/2020 12:53	Conductivity	3506.78	uS/cm
MW-17R	7/14/2020 12:53	DO	0.76	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-17R	7/14/2020 12:53	Depth to Water Detail	126.71	ft
MW-17R	7/14/2020 12:53	Oxidation Reduction Potention	50.19	mv
MW-17R	7/14/2020 12:53	pH	5.91	pH
MW-17R	7/14/2020 12:53	Temperature	23.72	C
MW-17R	7/14/2020 12:53	Turbidity	1.71	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-18	7/14/2020 14:07	Conductivity	2802.8	uS/cm
MW-18	7/14/2020 14:07	DO	4.56	mg/L
MW-18	7/14/2020 14:07	Depth to Water Detail	111.81	ft
MW-18	7/14/2020 14:07	Oxidation Reduction Potention	55.1	mv
MW-18	7/14/2020 14:07	pH	6.45	pH
MW-18	7/14/2020 14:07	Temperature	23.93	C
MW-18	7/14/2020 14:07	Turbidity	2.98	NTU
MW-18	7/14/2020 14:12	Conductivity	2833.31	uS/cm
MW-18	7/14/2020 14:12	DO	3.17	mg/L
MW-18	7/14/2020 14:12	Depth to Water Detail	111.81	ft
MW-18	7/14/2020 14:12	Oxidation Reduction Potention	64.37	mv
MW-18	7/14/2020 14:12	pH	6.35	pH
MW-18	7/14/2020 14:12	Temperature	23.67	C
MW-18	7/14/2020 14:12	Turbidity	3.07	NTU
MW-18	7/14/2020 14:17	Conductivity	2837.69	uS/cm
MW-18	7/14/2020 14:17	DO	2.86	mg/L
MW-18	7/14/2020 14:17	Depth to Water Detail	111.81	ft
MW-18	7/14/2020 14:17	Oxidation Reduction Potention	68.69	mv
MW-18	7/14/2020 14:17	pH	6.35	pH
MW-18	7/14/2020 14:17	Temperature	23.13	C
MW-18	7/14/2020 14:17	Turbidity	3.35	NTU
MW-18	7/14/2020 14:22	Conductivity	2836.45	uS/cm
MW-18	7/14/2020 14:22	DO	2.78	mg/L
MW-18	7/14/2020 14:22	Depth to Water Detail	111.81	ft
MW-18	7/14/2020 14:22	Oxidation Reduction Potention	71.72	mv
MW-18	7/14/2020 14:22	pH	6.35	pH
MW-18	7/14/2020 14:22	Temperature	22.91	C
MW-18	7/14/2020 14:22	Turbidity	3.13	NTU
MW-18	7/14/2020 14:27	Conductivity	2834.72	uS/cm
MW-18	7/14/2020 14:27	DO	2.74	mg/L
MW-18	7/14/2020 14:27	Depth to Water Detail	111.81	ft
MW-18	7/14/2020 14:27	Oxidation Reduction Potention	73.69	mv
MW-18	7/14/2020 14:27	pH	6.36	pH
MW-18	7/14/2020 14:27	Temperature	23.06	C
MW-18	7/14/2020 14:27	Turbidity	2.78	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-19	7/15/2020 8:21	Conductivity	2831.04	uS/cm
MW-19	7/15/2020 8:21	DO	0.49	mg/L
MW-19	7/15/2020 8:21	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:21	Oxidation Reduction Potention	163.76	mv
MW-19	7/15/2020 8:21	pH	6.28	pH
MW-19	7/15/2020 8:21	Temperature	20.63	C
MW-19	7/15/2020 8:21	Turbidity	81.3	NTU
MW-19	7/15/2020 8:26	Conductivity	2835.65	uS/cm
MW-19	7/15/2020 8:26	DO	0.37	mg/L
MW-19	7/15/2020 8:26	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:26	Oxidation Reduction Potention	162.83	mv
MW-19	7/15/2020 8:26	pH	6.28	pH
MW-19	7/15/2020 8:26	Temperature	20.41	C
MW-19	7/15/2020 8:26	Turbidity	22.8	NTU
MW-19	7/15/2020 8:31	Conductivity	2834.62	uS/cm
MW-19	7/15/2020 8:31	DO	0.32	mg/L
MW-19	7/15/2020 8:31	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:31	Oxidation Reduction Potention	160.02	mv
MW-19	7/15/2020 8:31	pH	6.28	pH
MW-19	7/15/2020 8:31	Temperature	20.58	C
MW-19	7/15/2020 8:31	Turbidity	15.6	NTU
MW-19	7/15/2020 8:36	Conductivity	2840.2	uS/cm
MW-19	7/15/2020 8:36	DO	0.29	mg/L
MW-19	7/15/2020 8:36	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:36	Oxidation Reduction Potention	156.74	mv
MW-19	7/15/2020 8:36	pH	6.28	pH
MW-19	7/15/2020 8:36	Temperature	20.51	C
MW-19	7/15/2020 8:36	Turbidity	10.48	NTU
MW-19	7/15/2020 8:41	Conductivity	2835.75	uS/cm
MW-19	7/15/2020 8:41	DO	0.26	mg/L
MW-19	7/15/2020 8:41	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:41	Oxidation Reduction Potention	152.69	mv
MW-19	7/15/2020 8:41	pH	6.28	pH
MW-19	7/15/2020 8:41	Temperature	20.66	C
MW-19	7/15/2020 8:41	Turbidity	8.38	NTU
MW-19	7/15/2020 8:46	Conductivity	2837.37	uS/cm
MW-19	7/15/2020 8:46	DO	0.25	mg/L
MW-19	7/15/2020 8:46	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:46	Oxidation Reduction Potention	148.48	mv
MW-19	7/15/2020 8:46	pH	6.28	pH
MW-19	7/15/2020 8:46	Temperature	20.66	C
MW-19	7/15/2020 8:46	Turbidity	6.68	NTU
MW-19	7/15/2020 8:51	Conductivity	2836.97	uS/cm
MW-19	7/15/2020 8:51	DO	0.24	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-19	7/15/2020 8:51	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:51	Oxidation Reduction Potention	144.22	mv
MW-19	7/15/2020 8:51	pH	6.28	pH
MW-19	7/15/2020 8:51	Temperature	20.59	C
MW-19	7/15/2020 8:51	Turbidity	7.07	NTU
MW-19	7/15/2020 8:56	Conductivity	2839.61	uS/cm
MW-19	7/15/2020 8:56	DO	0.23	mg/L
MW-19	7/15/2020 8:56	Depth to Water Detail	80.18	ft
MW-19	7/15/2020 8:56	Oxidation Reduction Potention	139.83	mv
MW-19	7/15/2020 8:56	pH	6.28	pH
MW-19	7/15/2020 8:56	Temperature	20.76	C
MW-19	7/15/2020 8:56	Turbidity	5.51	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-1	7/13/2020 11:04	Conductivity	2160.39	uS/cm
MW-1	7/13/2020 11:04	DO	1.22	mg/L
MW-1	7/13/2020 11:04	Depth to Water Detail	91.94	ft
MW-1	7/13/2020 11:04	Oxidation Reduction Potention	173.92	mv
MW-1	7/13/2020 11:04	pH	5.15	pH
MW-1	7/13/2020 11:04	Temperature	20.3	C
MW-1	7/13/2020 11:04	Turbidity	4.94	NTU
MW-1	7/13/2020 11:09	Conductivity	2180.28	uS/cm
MW-1	7/13/2020 11:09	DO	0.85	mg/L
MW-1	7/13/2020 11:09	Depth to Water Detail	91.94	ft
MW-1	7/13/2020 11:09	Oxidation Reduction Potention	202.41	mv
MW-1	7/13/2020 11:09	pH	5.14	pH
MW-1	7/13/2020 11:09	Temperature	20.36	C
MW-1	7/13/2020 11:09	Turbidity	1.78	NTU
MW-1	7/13/2020 11:14	Conductivity	2173.35	uS/cm
MW-1	7/13/2020 11:14	DO	0.62	mg/L
MW-1	7/13/2020 11:14	Depth to Water Detail	91.94	ft
MW-1	7/13/2020 11:14	Oxidation Reduction Potention	226.2	mv
MW-1	7/13/2020 11:14	pH	5.14	pH
MW-1	7/13/2020 11:14	Temperature	20.43	C
MW-1	7/13/2020 11:14	Turbidity	1.8	NTU
MW-1	7/13/2020 11:19	Conductivity	2164.1	uS/cm
MW-1	7/13/2020 11:19	DO	0.53	mg/L
MW-1	7/13/2020 11:19	Depth to Water Detail	91.94	ft
MW-1	7/13/2020 11:19	Oxidation Reduction Potention	243.57	mv
MW-1	7/13/2020 11:19	pH	5.13	pH
MW-1	7/13/2020 11:19	Temperature	20.4	C
MW-1	7/13/2020 11:19	Turbidity	1.88	NTU
MW-1	7/13/2020 11:24	Conductivity	2163.1	uS/cm
MW-1	7/13/2020 11:24	DO	0.49	mg/L
MW-1	7/13/2020 11:24	Depth to Water Detail	91.94	ft
MW-1	7/13/2020 11:24	Oxidation Reduction Potention	256.14	mv
MW-1	7/13/2020 11:24	pH	5.14	pH
MW-1	7/13/2020 11:24	Temperature	20.44	C
MW-1	7/13/2020 11:24	Turbidity	2.37	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-2	7/13/2020 12:34	Conductivity	1606.47	uS/cm
MW-2	7/13/2020 12:34	DO	0.36	mg/L
MW-2	7/13/2020 12:34	Depth to Water Detail	85.24	ft
MW-2	7/13/2020 12:34	Oxidation Reduction Potention	68.8	mv
MW-2	7/13/2020 12:34	pH	6.04	pH
MW-2	7/13/2020 12:34	Temperature	20.1	C
MW-2	7/13/2020 12:34	Turbidity	11.7	NTU
MW-2	7/13/2020 12:39	Conductivity	1605.79	uS/cm
MW-2	7/13/2020 12:39	DO	0.3	mg/L
MW-2	7/13/2020 12:39	Depth to Water Detail	85.24	ft
MW-2	7/13/2020 12:39	Oxidation Reduction Potention	66.78	mv
MW-2	7/13/2020 12:39	pH	6	pH
MW-2	7/13/2020 12:39	Temperature	20.12	C
MW-2	7/13/2020 12:39	Turbidity	5.35	NTU
MW-2	7/13/2020 12:44	Conductivity	1600.85	uS/cm
MW-2	7/13/2020 12:44	DO	0.29	mg/L
MW-2	7/13/2020 12:44	Depth to Water Detail	85.24	ft
MW-2	7/13/2020 12:44	Oxidation Reduction Potention	70.03	mv
MW-2	7/13/2020 12:44	pH	5.92	pH
MW-2	7/13/2020 12:44	Temperature	20.2	C
MW-2	7/13/2020 12:44	Turbidity	3.35	NTU
MW-2	7/13/2020 12:49	Conductivity	1601.39	uS/cm
MW-2	7/13/2020 12:49	DO	0.27	mg/L
MW-2	7/13/2020 12:49	Depth to Water Detail	85.24	ft
MW-2	7/13/2020 12:49	Oxidation Reduction Potention	73.31	mv
MW-2	7/13/2020 12:49	pH	5.84	pH
MW-2	7/13/2020 12:49	Temperature	20.28	C
MW-2	7/13/2020 12:49	Turbidity	3.33	NTU

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Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-3	7/13/2020 13:59	Conductivity	2352.1	uS/cm
MW-3	7/13/2020 13:59	DO	8.44	mg/L
MW-3	7/13/2020 13:59	Depth to Water Detail	110.91	ft
MW-3	7/13/2020 13:59	Oxidation Reduction Potention	60.17	mv
MW-3	7/13/2020 13:59	pH	7.04	pH
MW-3	7/13/2020 13:59	Temperature	26.7	C
MW-3	7/13/2020 13:59	Turbidity	2.3	NTU
MW-3	7/13/2020 14:04	Conductivity	2593.78	uS/cm
MW-3	7/13/2020 14:04	DO	5.13	mg/L
MW-3	7/13/2020 14:04	Depth to Water Detail	111.04	ft
MW-3	7/13/2020 14:04	Oxidation Reduction Potention	96.35	mv
MW-3	7/13/2020 14:04	pH	6.01	pH
MW-3	7/13/2020 14:04	Temperature	26.66	C
MW-3	7/13/2020 14:04	Turbidity	2.6	NTU
MW-3	7/13/2020 14:09	Conductivity	2836.37	uS/cm
MW-3	7/13/2020 14:09	DO	2.2	mg/L
MW-3	7/13/2020 14:09	Depth to Water Detail	111.14	ft
MW-3	7/13/2020 14:09	Oxidation Reduction Potention	128.82	mv
MW-3	7/13/2020 14:09	pH	5.56	pH
MW-3	7/13/2020 14:09	Temperature	26.21	C
MW-3	7/13/2020 14:09	Turbidity	11.3	NTU
MW-3	7/13/2020 14:14	Conductivity	2843.84	uS/cm
MW-3	7/13/2020 14:14	DO	1.63	mg/L
MW-3	7/13/2020 14:14	Depth to Water Detail	111.26	ft
MW-3	7/13/2020 14:14	Oxidation Reduction Potention	152.74	mv
MW-3	7/13/2020 14:14	pH	5.4	pH
MW-3	7/13/2020 14:14	Temperature	25.9	C
MW-3	7/13/2020 14:14	Turbidity	24.2	NTU
MW-3	7/13/2020 14:19	Conductivity	2850.29	uS/cm
MW-3	7/13/2020 14:19	DO	1.48	mg/L
MW-3	7/13/2020 14:19	Depth to Water Detail	111.37	ft
MW-3	7/13/2020 14:19	Oxidation Reduction Potention	172.43	mv
MW-3	7/13/2020 14:19	pH	5.29	pH
MW-3	7/13/2020 14:19	Temperature	26.23	C
MW-3	7/13/2020 14:19	Turbidity	17.3	NTU
MW-3	7/13/2020 14:24	Conductivity	2798.62	uS/cm
MW-3	7/13/2020 14:24	DO	1.42	mg/L
MW-3	7/13/2020 14:24	Depth to Water Detail	111.52	ft
MW-3	7/13/2020 14:24	Oxidation Reduction Potention	187.14	mv
MW-3	7/13/2020 14:24	pH	5.22	pH
MW-3	7/13/2020 14:24	Temperature	25.03	C
MW-3	7/13/2020 14:24	Turbidity	11.7	NTU
MW-3	7/13/2020 14:29	Conductivity	2834.89	uS/cm
MW-3	7/13/2020 14:29	DO	1.36	mg/L

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-3	7/13/2020 14:29	Depth to Water Detail	111.64	ft
MW-3	7/13/2020 14:29	Oxidation Reduction Potention	195.13	mv
MW-3	7/13/2020 14:29	pH	5.16	pH
MW-3	7/13/2020 14:29	Temperature	25.3	C
MW-3	7/13/2020 14:29	Turbidity	9.7	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-4	7/14/2020 10:16	Conductivity	2330.8	uS/cm
MW-4	7/14/2020 10:16	DO	1.59	mg/L
MW-4	7/14/2020 10:16	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:16	Oxidation Reduction Potention	51.95	mv
MW-4	7/14/2020 10:16	pH	6.34	pH
MW-4	7/14/2020 10:16	Temperature	21	C
MW-4	7/14/2020 10:16	Turbidity	12.19	NTU
MW-4	7/14/2020 10:21	Conductivity	2293.68	uS/cm
MW-4	7/14/2020 10:21	DO	1.42	mg/L
MW-4	7/14/2020 10:21	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:21	Oxidation Reduction Potention	64.67	mv
MW-4	7/14/2020 10:21	pH	6.32	pH
MW-4	7/14/2020 10:21	Temperature	21.03	C
MW-4	7/14/2020 10:21	Turbidity	7.98	NTU
MW-4	7/14/2020 10:26	Conductivity	2267.96	uS/cm
MW-4	7/14/2020 10:26	DO	1.64	mg/L
MW-4	7/14/2020 10:26	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:26	Oxidation Reduction Potention	74.02	mv
MW-4	7/14/2020 10:26	pH	6.31	pH
MW-4	7/14/2020 10:26	Temperature	20.96	C
MW-4	7/14/2020 10:26	Turbidity	4.2	NTU
MW-4	7/14/2020 10:31	Conductivity	2248.87	uS/cm
MW-4	7/14/2020 10:31	DO	1.85	mg/L
MW-4	7/14/2020 10:31	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:31	Oxidation Reduction Potention	82.54	mv
MW-4	7/14/2020 10:31	pH	6.28	pH
MW-4	7/14/2020 10:31	Temperature	21.03	C
MW-4	7/14/2020 10:31	Turbidity	3.54	NTU
MW-4	7/14/2020 10:36	Conductivity	2216.28	uS/cm
MW-4	7/14/2020 10:36	DO	2.15	mg/L
MW-4	7/14/2020 10:36	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:36	Oxidation Reduction Potention	90	mv
MW-4	7/14/2020 10:36	pH	6.25	pH
MW-4	7/14/2020 10:36	Temperature	20.89	C
MW-4	7/14/2020 10:36	Turbidity	3.18	NTU
MW-4	7/14/2020 10:41	Conductivity	2213.54	uS/cm
MW-4	7/14/2020 10:41	DO	2.38	mg/L
MW-4	7/14/2020 10:41	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:41	Oxidation Reduction Potention	96.29	mv
MW-4	7/14/2020 10:41	pH	6.22	pH
MW-4	7/14/2020 10:41	Temperature	20.89	C
MW-4	7/14/2020 10:41	Turbidity	2.64	NTU
MW-4	7/14/2020 10:46	Conductivity	2210.74	uS/cm
MW-4	7/14/2020 10:46	DO	2.47	mg/L

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-4	7/14/2020 10:46	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:46	Oxidation Reduction Potention	101.06	mv
MW-4	7/14/2020 10:46	pH	6.2	pH
MW-4	7/14/2020 10:46	Temperature	21.01	C
MW-4	7/14/2020 10:46	Turbidity	2.46	NTU
MW-4	7/14/2020 10:51	Conductivity	2212.35	uS/cm
MW-4	7/14/2020 10:51	DO	2.51	mg/L
MW-4	7/14/2020 10:51	Depth to Water Detail	117.28	ft
MW-4	7/14/2020 10:51	Oxidation Reduction Potention	104.87	mv
MW-4	7/14/2020 10:51	pH	6.2	pH
MW-4	7/14/2020 10:51	Temperature	21.05	C
MW-4	7/14/2020 10:51	Turbidity	2.25	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-5	7/14/2020 9:07	Conductivity	2746.52	uS/cm
MW-5	7/14/2020 9:07	DO	2.62	mg/L
MW-5	7/14/2020 9:07	Depth to Water Detail	126.14	ft
MW-5	7/14/2020 9:07	Oxidation Reduction Potention	-16.02	mv
MW-5	7/14/2020 9:07	pH	6.52	pH
MW-5	7/14/2020 9:07	Temperature	22.52	C
MW-5	7/14/2020 9:07	Turbidity	7.03	NTU
MW-5	7/14/2020 9:12	Conductivity	2718	uS/cm
MW-5	7/14/2020 9:12	DO	1.12	mg/L
MW-5	7/14/2020 9:12	Depth to Water Detail	126.17	ft
MW-5	7/14/2020 9:12	Oxidation Reduction Potention	-18.71	mv
MW-5	7/14/2020 9:12	pH	6.48	pH
MW-5	7/14/2020 9:12	Temperature	22.5	C
MW-5	7/14/2020 9:12	Turbidity	4.39	NTU
MW-5	7/14/2020 9:17	Conductivity	2697.04	uS/cm
MW-5	7/14/2020 9:17	DO	0.81	mg/L
MW-5	7/14/2020 9:17	Depth to Water Detail	126.19	ft
MW-5	7/14/2020 9:17	Oxidation Reduction Potention	-20.3	mv
MW-5	7/14/2020 9:17	pH	6.48	pH
MW-5	7/14/2020 9:17	Temperature	22.56	C
MW-5	7/14/2020 9:17	Turbidity	4.11	NTU
MW-5	7/14/2020 9:22	Conductivity	2686.8	uS/cm
MW-5	7/14/2020 9:22	DO	0.73	mg/L
MW-5	7/14/2020 9:22	Depth to Water Detail	126.21	ft
MW-5	7/14/2020 9:22	Oxidation Reduction Potention	-18.84	mv
MW-5	7/14/2020 9:22	pH	6.48	pH
MW-5	7/14/2020 9:22	Temperature	22.71	C
MW-5	7/14/2020 9:22	Turbidity	3.63	NTU
MW-5	7/14/2020 9:27	Conductivity	2682.21	uS/cm
MW-5	7/14/2020 9:27	DO	0.7	mg/L
MW-5	7/14/2020 9:27	Depth to Water Detail	126.21	ft
MW-5	7/14/2020 9:27	Oxidation Reduction Potention	-17.01	mv
MW-5	7/14/2020 9:27	pH	6.48	pH
MW-5	7/14/2020 9:27	Temperature	22.89	C
MW-5	7/14/2020 9:27	Turbidity	2.88	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-6	7/14/2020 11:36	Conductivity	2251.66	uS/cm
MW-6	7/14/2020 11:36	DO	0.35	mg/L
MW-6	7/14/2020 11:36	Depth to Water Detail	103.86	ft
MW-6	7/14/2020 11:36	Oxidation Reduction Potention	27.02	mv
MW-6	7/14/2020 11:36	pH	6.14	pH
MW-6	7/14/2020 11:36	Temperature	21.58	C
MW-6	7/14/2020 11:36	Turbidity	3.08	NTU
MW-6	7/14/2020 11:41	Conductivity	2225.86	uS/cm
MW-6	7/14/2020 11:41	DO	0.27	mg/L
MW-6	7/14/2020 11:41	Depth to Water Detail	103.86	ft
MW-6	7/14/2020 11:41	Oxidation Reduction Potention	15.19	mv
MW-6	7/14/2020 11:41	pH	6.14	pH
MW-6	7/14/2020 11:41	Temperature	21.61	C
MW-6	7/14/2020 11:41	Turbidity	4.06	NTU
MW-6	7/14/2020 11:46	Conductivity	2208.28	uS/cm
MW-6	7/14/2020 11:46	DO	0.25	mg/L
MW-6	7/14/2020 11:46	Depth to Water Detail	103.86	ft
MW-6	7/14/2020 11:46	Oxidation Reduction Potention	12.7	mv
MW-6	7/14/2020 11:46	pH	6.13	pH
MW-6	7/14/2020 11:46	Temperature	21.49	C
MW-6	7/14/2020 11:46	Turbidity	5.08	NTU
MW-6	7/14/2020 11:51	Conductivity	2191.41	uS/cm
MW-6	7/14/2020 11:51	DO	0.24	mg/L
MW-6	7/14/2020 11:51	Depth to Water Detail	103.86	ft
MW-6	7/14/2020 11:51	Oxidation Reduction Potention	12.45	mv
MW-6	7/14/2020 11:51	pH	6.12	pH
MW-6	7/14/2020 11:51	Temperature	21.43	C
MW-6	7/14/2020 11:51	Turbidity	4.1	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-7	7/14/2020 12:59	Conductivity	1960.34	uS/cm
MW-7	7/14/2020 12:59	DO	0.39	mg/L
MW-7	7/14/2020 12:59	Depth to Water Detail	58.87	ft
MW-7	7/14/2020 12:59	Oxidation Reduction Potention	-2.28	mv
MW-7	7/14/2020 12:59	pH	6.75	pH
MW-7	7/14/2020 12:59	Temperature	20.6	C
MW-7	7/14/2020 12:59	Turbidity	2.97	NTU
MW-7	7/14/2020 13:04	Conductivity	1854.1	uS/cm
MW-7	7/14/2020 13:04	DO	0.31	mg/L
MW-7	7/14/2020 13:04	Depth to Water Detail	58.87	ft
MW-7	7/14/2020 13:04	Oxidation Reduction Potention	-1.77	mv
MW-7	7/14/2020 13:04	pH	6.71	pH
MW-7	7/14/2020 13:04	Temperature	20.58	C
MW-7	7/14/2020 13:04	Turbidity	2.77	NTU
MW-7	7/14/2020 13:09	Conductivity	1820.42	uS/cm
MW-7	7/14/2020 13:09	DO	0.29	mg/L
MW-7	7/14/2020 13:09	Depth to Water Detail	58.87	ft
MW-7	7/14/2020 13:09	Oxidation Reduction Potention	1.75	mv
MW-7	7/14/2020 13:09	pH	6.64	pH
MW-7	7/14/2020 13:09	Temperature	20.39	C
MW-7	7/14/2020 13:09	Turbidity	3.15	NTU
MW-7	7/14/2020 13:14	Conductivity	1789.29	uS/cm
MW-7	7/14/2020 13:14	DO	0.27	mg/L
MW-7	7/14/2020 13:14	Depth to Water Detail	58.87	ft
MW-7	7/14/2020 13:14	Oxidation Reduction Potention	7.09	mv
MW-7	7/14/2020 13:14	pH	6.56	pH
MW-7	7/14/2020 13:14	Temperature	20.39	C
MW-7	7/14/2020 13:14	Turbidity	2.44	NTU
MW-7	7/14/2020 13:19	Conductivity	1763.26	uS/cm
MW-7	7/14/2020 13:19	DO	0.26	mg/L
MW-7	7/14/2020 13:19	Depth to Water Detail	58.87	ft
MW-7	7/14/2020 13:19	Oxidation Reduction Potention	10.54	mv
MW-7	7/14/2020 13:19	pH	6.52	pH
MW-7	7/14/2020 13:19	Temperature	20.26	C
MW-7	7/14/2020 13:19	Turbidity	2.26	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-8	7/15/2020 9:02	Conductivity	2376.28	uS/cm
MW-8	7/15/2020 9:02	DO	2.39	mg/L
MW-8	7/15/2020 9:02	Depth to Water Detail	64.31	ft
MW-8	7/15/2020 9:02	Oxidation Reduction Potention	9.51	mv
MW-8	7/15/2020 9:02	pH	6.75	pH
MW-8	7/15/2020 9:02	Temperature	23.17	C
MW-8	7/15/2020 9:02	Turbidity	16.1	NTU
MW-8	7/15/2020 9:07	Conductivity	2337.36	uS/cm
MW-8	7/15/2020 9:07	DO	1.4	mg/L
MW-8	7/15/2020 9:07	Depth to Water Detail	64.46	ft
MW-8	7/15/2020 9:07	Oxidation Reduction Potention	-13.53	mv
MW-8	7/15/2020 9:07	pH	6.72	pH
MW-8	7/15/2020 9:07	Temperature	23.06	C
MW-8	7/15/2020 9:07	Turbidity	12.2	NTU
MW-8	7/15/2020 9:12	Conductivity	2301.29	uS/cm
MW-8	7/15/2020 9:12	DO	1.2	mg/L
MW-8	7/15/2020 9:12	Depth to Water Detail	64.59	ft
MW-8	7/15/2020 9:12	Oxidation Reduction Potention	-18.02	mv
MW-8	7/15/2020 9:12	pH	6.72	pH
MW-8	7/15/2020 9:12	Temperature	22.84	C
MW-8	7/15/2020 9:12	Turbidity	9.86	NTU
MW-8	7/15/2020 9:17	Conductivity	2279.98	uS/cm
MW-8	7/15/2020 9:17	DO	1.11	mg/L
MW-8	7/15/2020 9:17	Depth to Water Detail	64.71	ft
MW-8	7/15/2020 9:17	Oxidation Reduction Potention	-18.96	mv
MW-8	7/15/2020 9:17	pH	6.71	pH
MW-8	7/15/2020 9:17	Temperature	22.88	C
MW-8	7/15/2020 9:17	Turbidity	11.23	NTU
MW-8	7/15/2020 9:22	Conductivity	2259.4	uS/cm
MW-8	7/15/2020 9:22	DO	1.06	mg/L
MW-8	7/15/2020 9:22	Depth to Water Detail	64.82	ft
MW-8	7/15/2020 9:22	Oxidation Reduction Potention	-18.8	mv
MW-8	7/15/2020 9:22	pH	6.71	pH
MW-8	7/15/2020 9:22	Temperature	22.81	C
MW-8	7/15/2020 9:22	Turbidity	9.42	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-10	7/14/2020 14:07	Conductivity	1209.56	uS/cm
MW-10	7/14/2020 14:07	DO	1.61	mg/L
MW-10	7/14/2020 14:07	Depth to Water Detail	86.59	ft
MW-10	7/14/2020 14:07	Oxidation Reduction Potention	23.74	mv
MW-10	7/14/2020 14:07	pH	6.44	pH
MW-10	7/14/2020 14:07	Temperature	22.75	C
MW-10	7/14/2020 14:07	Turbidity	16.6	NTU
MW-10	7/14/2020 14:12	Conductivity	1179.64	uS/cm
MW-10	7/14/2020 14:12	DO	0.7	mg/L
MW-10	7/14/2020 14:12	Depth to Water Detail	87.98	ft
MW-10	7/14/2020 14:12	Oxidation Reduction Potention	15.06	mv
MW-10	7/14/2020 14:12	pH	6.44	pH
MW-10	7/14/2020 14:12	Temperature	21.97	C
MW-10	7/14/2020 14:12	Turbidity	23.7	NTU
MW-10	7/14/2020 14:17	Conductivity	1176.18	uS/cm
MW-10	7/14/2020 14:17	DO	0.55	mg/L
MW-10	7/14/2020 14:17	Depth to Water Detail	88.34	ft
MW-10	7/14/2020 14:17	Oxidation Reduction Potention	12.83	mv
MW-10	7/14/2020 14:17	pH	6.44	pH
MW-10	7/14/2020 14:17	Temperature	21.87	C
MW-10	7/14/2020 14:17	Turbidity	17.3	NTU
MW-10	7/14/2020 14:22	Conductivity	1199.32	uS/cm
MW-10	7/14/2020 14:22	DO	0.71	mg/L
MW-10	7/14/2020 14:22	Depth to Water Detail	88.34	ft
MW-10	7/14/2020 14:22	Oxidation Reduction Potention	10.26	mv
MW-10	7/14/2020 14:22	pH	6.42	pH
MW-10	7/14/2020 14:22	Temperature	24.12	C
MW-10	7/14/2020 14:22	Turbidity	14.4	NTU
MW-10	7/14/2020 14:27	Conductivity	1201.61	uS/cm
MW-10	7/14/2020 14:27	DO	0.78	mg/L
MW-10	7/14/2020 14:27	Depth to Water Detail	88.34	ft
MW-10	7/14/2020 14:27	Oxidation Reduction Potention	10.38	mv
MW-10	7/14/2020 14:27	pH	6.42	pH
MW-10	7/14/2020 14:27	Temperature	24.09	C
MW-10	7/14/2020 14:27	Turbidity	12.8	NTU
MW-10	7/14/2020 14:32	Conductivity	1206.28	uS/cm
MW-10	7/14/2020 14:32	DO	0.82	mg/L
MW-10	7/14/2020 14:32	Depth to Water Detail	88.34	ft
MW-10	7/14/2020 14:32	Oxidation Reduction Potention	10.24	mv
MW-10	7/14/2020 14:32	pH	6.42	pH
MW-10	7/14/2020 14:32	Temperature	24.26	C
MW-10	7/14/2020 14:32	Turbidity	11.73	NTU
MW-10	7/14/2020 14:37	Conductivity	1211.26	uS/cm
MW-10	7/14/2020 14:37	DO	0.81	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-10	7/14/2020 14:37	Depth to Water Detail	88.34	ft
MW-10	7/14/2020 14:37	Oxidation Reduction Potention	10.56	mv
MW-10	7/14/2020 14:37	pH	6.42	pH
MW-10	7/14/2020 14:37	Temperature	24.18	C
MW-10	7/14/2020 14:37	Turbidity	8.34	NTU

Alabama Power Company
Plant Gorgas

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
MW-20	7/15/2020 10:24	Conductivity	2294.66	uS/cm
MW-20	7/15/2020 10:24	DO	0.39	mg/L
MW-20	7/15/2020 10:24	Depth to Water Detail	24.71	ft
MW-20	7/15/2020 10:24	Oxidation Reduction Potention	-55.4	mv
MW-20	7/15/2020 10:24	pH	6.86	pH
MW-20	7/15/2020 10:24	Temperature	21.1	C
MW-20	7/15/2020 10:24	Turbidity	4.13	NTU
MW-20	7/15/2020 10:29	Conductivity	2275.61	uS/cm
MW-20	7/15/2020 10:29	DO	0.34	mg/L
MW-20	7/15/2020 10:29	Depth to Water Detail	25.09	ft
MW-20	7/15/2020 10:29	Oxidation Reduction Potention	-58.59	mv
MW-20	7/15/2020 10:29	pH	6.86	pH
MW-20	7/15/2020 10:29	Temperature	21.16	C
MW-20	7/15/2020 10:29	Turbidity	2.8	NTU
MW-20	7/15/2020 10:34	Conductivity	2274.8	uS/cm
MW-20	7/15/2020 10:34	DO	0.34	mg/L
MW-20	7/15/2020 10:34	Depth to Water Detail	25.21	ft
MW-20	7/15/2020 10:34	Oxidation Reduction Potention	-59.41	mv
MW-20	7/15/2020 10:34	pH	6.87	pH
MW-20	7/15/2020 10:34	Temperature	20.89	C
MW-20	7/15/2020 10:34	Turbidity	3.09	NTU
MW-20	7/15/2020 10:39	Conductivity	2273.89	uS/cm
MW-20	7/15/2020 10:39	DO	0.33	mg/L
MW-20	7/15/2020 10:39	Depth to Water Detail	25.33	ft
MW-20	7/15/2020 10:39	Oxidation Reduction Potention	-59.89	mv
MW-20	7/15/2020 10:39	pH	6.87	pH
MW-20	7/15/2020 10:39	Temperature	21.05	C
MW-20	7/15/2020 10:39	Turbidity	2.28	NTU

Appendix C

1st
Semi-Annual
Monitoring Event

Interwell Prediction Limits - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	**MW-5**	**3.816**	**n/a**	**4/7/2020**	**4.83**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-6**	**3.816**	**n/a**	**4/8/2020**	**4.63**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-7**	**3.816**	**n/a**	**4/8/2020**	**10.6**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-8**	**3.816**	**n/a**	**4/8/2020**	**24.9**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
pH (SU)	**MW-5**	**6.35**	**3.77**	**4/7/2020**	**6.43**	**Yes**	**86**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
pH (SU)	**MW-7**	**6.35**	**3.77**	**4/8/2020**	**6.64**	**Yes**	**86**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
pH (SU)	**MW-8**	**6.35**	**3.77**	**4/8/2020**	**6.7**	**Yes**	**86**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**

Interwell Prediction Limits - All Results

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	**MW-5**	**3.816**	**n/a**	**4/7/2020**	**4.83**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-6**	**3.816**	**n/a**	**4/8/2020**	**4.63**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-7**	**3.816**	**n/a**	**4/8/2020**	**10.6**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-8**	**3.816**	**n/a**	**4/8/2020**	**24.9**	**Yes**	**84**	**3.571**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
pH (SU)	**MW-5**	**6.35**	**3.77**	**4/7/2020**	**6.43**	**Yes**	**86**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
pH (SU)	MW-6	6.35	3.77	4/8/2020	4.98	No	86	0	n/a	0.000...	NP Inter (normality) ...
pH (SU)	**MW-7**	**6.35**	**3.77**	**4/8/2020**	**6.64**	**Yes**	**86**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
pH (SU)	**MW-8**	**6.35**	**3.77**	**4/8/2020**	**6.7**	**Yes**	**86**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**

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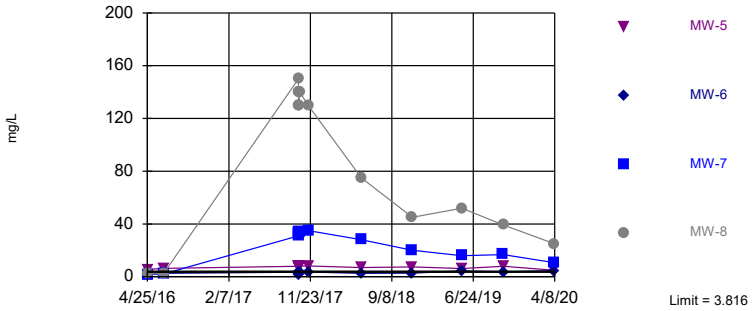
Exceeds Limit: MW-5, MW-6, MW-7, MW-8

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=1.482, Std. Dev.=0.2679, n=84, 3.571% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9645, critical = 0.96. Kappa = 1.76 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Chloride Analysis Run 7/22/2020 10:25 AM View: Interwell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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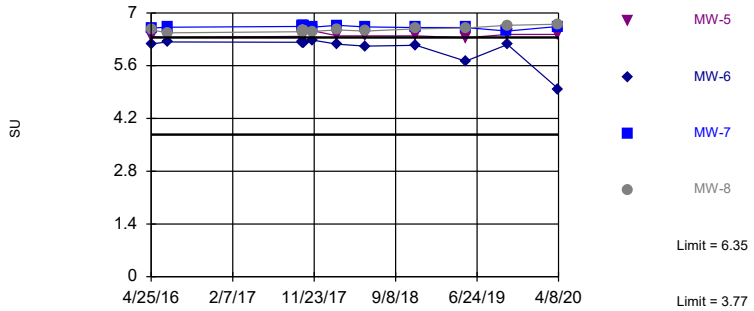
Exceeds Limits: MW-5, MW-7, MW-8

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 86 background values. Annual per-constituent alpha = 0.004198. Individual comparison alpha = 0.0005253 (1 of 2). Comparing 4 points to limit.

Constituent: pH Analysis Run 7/22/2020 10:25 AM View: Interwell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 7/22/2020 10:28 AM View: Interwell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3 (bg)	MW-2 (bg)	MW-4 (bg)	MW-5	MW-1 (bg)	MW-8	MW-6	MW-7
4/25/2016	1.32	1.9	1.53	5.44				
4/26/2016					1.94			
4/27/2016						2.34	2.19	1.71
6/20/2016		3.43	1.85		2.09			
6/21/2016				6.32		2.29	2.56	2.04
6/22/2016	1.46							
8/8/2016		3.31			2.18			
8/9/2016	1.35		1.95					
8/24/2016	1.47	3.23	2.07		2.22			
10/3/2016		3.21	2.02		2.34			
10/4/2016	1.59							
10/26/2016	1.27	3.35	2.07		2.34			
11/21/2016	1.38	3.34	2.39		2.5			
1/17/2017		3.58			2.68			
1/18/2017	1.34		1.9					
3/22/2017	2	3.4	1.5 (J)		3.7			
4/18/2017	2.2	2.6	1.6 (J)		2.4			
5/30/2017					2.6			
5/31/2017	1.5 (J)	4.4	2.1					
8/23/2017	1.8 (J)	4.4	2.3		2.7			
10/12/2017				7.9		150	3.4	31
10/13/2017				8 (B)		130 (B)	3 (B)	32 (B)
10/14/2017				7.4		140	2.8	33
10/15/2017				7.2		130	1.9 (J)	34
10/16/2017				8.1		140	1.8 (J)	34
10/17/2017				7.9		140	3.1	34
11/16/2017				8.1		130	3.5	35
5/22/2018		3.2			2.3			
5/23/2018			2	7		75	2.6	28
5/24/2018	1.6 (J)							
6/12/2018	1.4 (J)	3.7	1.7 (J)		2.3			
10/17/2018	<2	4.6	1.5 (J)		1.7 (J)			
11/19/2018	<2	3	<2		1.7 (J)			
11/20/2018				7.4		45	2.7	20
4/10/2019	2.25	1.76	1.88		2.36			
5/14/2019	2.28	2.98	1.82	6.24	2.28			
5/15/2019						52	4.45	15.9
10/8/2019	1.36	4.26			2.31			16.8
10/9/2019						39.2		
10/10/2019			1.93	7.88			3.61	
10/16/2019	1.4	4.04	1.92		2.42			
4/6/2020	1.72	2.43	1.5		2.01			
4/7/2020				4.83				
4/8/2020						24.9	4.63	10.6

Prediction Limit

Constituent: pH (SU) Analysis Run 7/22/2020 10:28 AM View: Interwell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3 (bg)	MW-4 (bg)	MW-2 (bg)	MW-5	MW-1 (bg)	MW-8	MW-7	MW-6
4/25/2016	5.56	6.22	5.94	6.37				
4/26/2016					5.2			
4/27/2016						6.55	6.6	6.18
6/20/2016		6.21	5.96		5.18			
6/21/2016				6.35		6.47	6.62	6.23
6/22/2016	5.57							
8/8/2016			5.88		5.12			
8/9/2016	5.67	6.11						
8/24/2016	5.63	6.11						
10/3/2016		6.13 (D)	5.91 (D)		5.21 (D)			
10/4/2016	5.69 (D)							
10/26/2016	5.56	6.12	5.84		5.2			
11/21/2016	5.42 (D)	6.09 (D)	5.82 (D)		5.19 (D)			
1/17/2017			5.87 (D)		5.17 (D)			
1/18/2017	5.11 (D)	6.09 (D)						
3/22/2017	4.52 (D)	6.15 (D)	6.01 (D)		5.2 (D)			
4/18/2017	5.84	6.19	6.02		5.2			
5/30/2017					5.14 (D)			
5/31/2017	4.56 (D)	6.13 (D)	5.85 (D)					
8/23/2017	4.77 (D)	6.12 (D)	5.89 (D)		5.12 (D)			
10/12/2017				6.38		6.5	6.64	6.22
10/13/2017				6.43		6.51	6.64	6.23
10/14/2017				6.41		6.53	6.66	6.22
10/15/2017				6.42		6.53	6.67	6.22
10/16/2017				6.42		6.54	6.67	6.21
10/17/2017				6.41		6.54	6.66	6.2
11/16/2017				6.53		6.51	6.62	6.28
2/13/2018	5.67	6.22	6.21		5.18			
2/14/2018				6.39		6.55	6.67	6.17
5/22/2018			6.04		5.2			
5/23/2018		6.21		6.39		6.52	6.63	6.12
5/24/2018	5.19							
6/12/2018	4.79	6.16	5.95		5.15			
10/17/2018	4.75	6.12	5.9		5.12			
11/19/2018	3.77 (E)	6.16	6.03		5.09			
11/20/2018				6.39		6.58	6.61	6.14
4/10/2019	5.54	6.14	6.1		5.11			
5/14/2019	5.71	6.23	6.07	6.34	5.19			
5/15/2019						6.6	6.61	5.72
10/8/2019	4.98		5.96		5.12		6.52	
10/9/2019						6.67		
10/10/2019		6.15		6.43				6.16
10/16/2019	4.51	6.19	5.98		5.16			
4/6/2020	5.91	6.35	6.21		5.21			
4/7/2020				6.43				
4/8/2020						6.7	6.64	4.98

Intrawell Prediction Limits - All Results (No Significant Results)

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:32 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	MW-1	0.05	n/a	4/6/2020	0.05ND	No	18	16.67	n/a	0.005373	NP Intra (normality) ...
Boron (mg/L)	MW-2	0.04783	n/a	4/6/2020	0.05ND	No	18	11.11	No	0.00188	Param Intra 1 of 2
Boron (mg/L)	MW-3	0.05843	n/a	4/6/2020	0.05ND	No	18	16.67	No	0.00188	Param Intra 1 of 2
Boron (mg/L)	MW-4	0.1015	n/a	4/6/2020	0.0428	No	18	5.556	n/a	0.005373	NP Intra (normality) ...
Boron (mg/L)	MW-5	0.1015	n/a	4/7/2020	0.0399	No	12	8.333	n/a	0.01077	NP Intra (normality) ...
Boron (mg/L)	MW-6	0.09671	n/a	4/8/2020	0.0499	No	12	0	No	0.00188	Param Intra 1 of 2
Boron (mg/L)	MW-7	0.08083	n/a	4/8/2020	0.077	No	11	0	No	0.00188	Param Intra 1 of 2
Boron (mg/L)	MW-8	0.0831	n/a	4/8/2020	0.0683	No	12	0	n/a	0.01077	NP Intra (normality) ...
Calcium (mg/L)	MW-1	158.1	n/a	4/6/2020	149	No	11	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-2	218.6	n/a	4/6/2020	152	No	18	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-3	416.4	n/a	4/6/2020	177	No	18	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-4	388.7	n/a	4/6/2020	222	No	18	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-5	466.9	n/a	4/7/2020	432	No	12	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-6	471.6	n/a	4/8/2020	242	No	12	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-7	346.8	n/a	4/8/2020	280	No	12	0	x^3	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-8	315.6	n/a	4/8/2020	281	No	8	0	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-1	0.1975	n/a	4/6/2020	0.101	No	19	0	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-2	0.2192	n/a	4/6/2020	0.207	No	11	0	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-3	0.6475	n/a	4/6/2020	0.314	No	19	0	ln(x)	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-4	0.4393	n/a	4/6/2020	0.368	No	11	0	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-5	0.4265	n/a	4/7/2020	0.225	No	13	0	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-6	0.1565	n/a	4/8/2020	0.05ND	No	13	0	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-7	0.2139	n/a	4/8/2020	0.153	No	13	0	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-8	0.2342	n/a	4/8/2020	0.192	No	13	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	2100	n/a	4/6/2020	1530	No	18	0	n/a	0.005373	NP Intra (normality) ...
Sulfate (mg/L)	MW-2	1260	n/a	4/6/2020	786	No	18	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	3202	n/a	4/6/2020	1670	No	18	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-4	3041	n/a	4/6/2020	1810	No	18	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-5	2558	n/a	4/7/2020	2050	No	12	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-6	2232	n/a	4/8/2020	1900	No	12	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-7	1613	n/a	4/8/2020	1270	No	11	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-8	2100	n/a	4/8/2020	1380	No	12	0	n/a	0.01077	NP Intra (normality) ...
Total Dissolved Solids...	MW-1	2252	n/a	4/6/2020	2240	No	11	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-2	2052	n/a	4/6/2020	1440	No	18	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-3	4938	n/a	4/6/2020	2630	No	18	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-4	4601	n/a	4/6/2020	2820	No	18	0	x^2	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-5	4190	n/a	4/7/2020	3270	No	12	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-6	3448	n/a	4/8/2020	2940	No	12	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-7	2647	n/a	4/8/2020	2230	No	12	0	x^5	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-8	2862	n/a	4/8/2020	2450	No	12	0	No	0.00188	Param Intra 1 of 2

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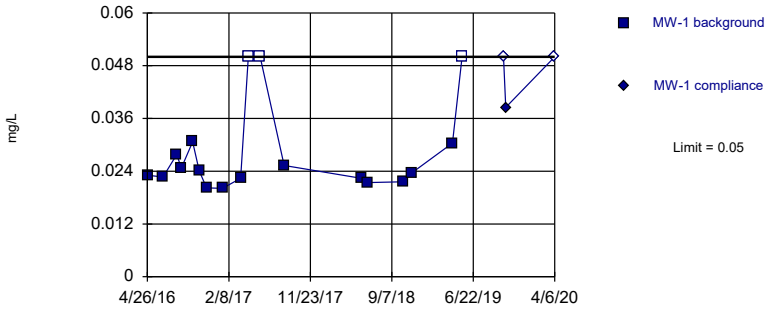
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 16.67% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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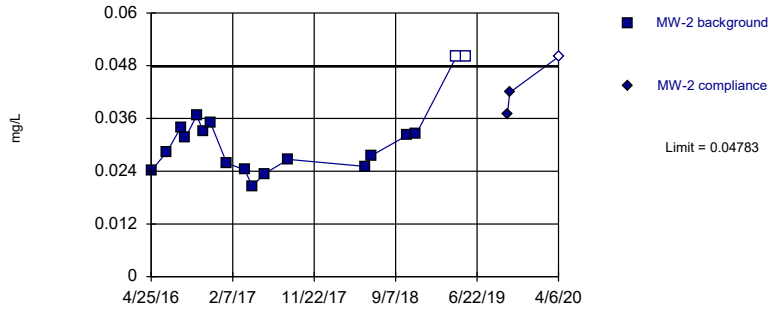
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.03116, Std. Dev.=0.008202, n=18, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.864, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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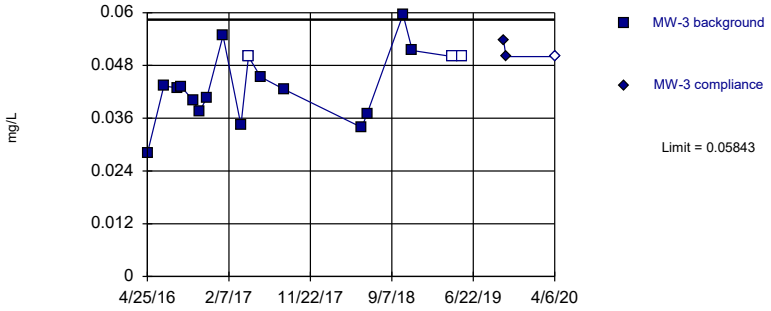
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0423, Std. Dev.=0.00794, n=18, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9846, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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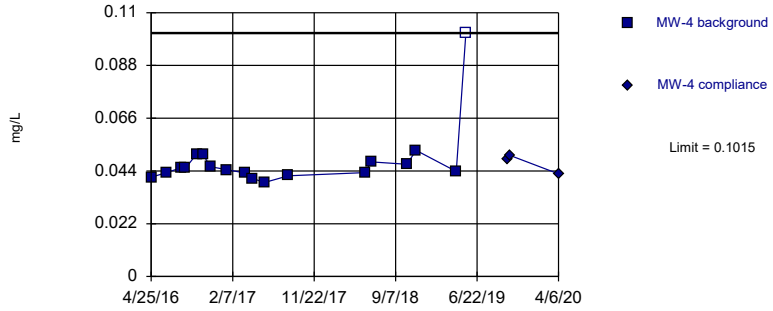
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 5.556% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	0.0231 (J)	
6/20/2016	0.0227 (J)	
8/8/2016	0.0278 (J)	
8/24/2016	0.0247 (J)	
10/3/2016	0.0307 (J)	
10/26/2016	0.0241 (J)	
11/21/2016	0.0202 (J)	
1/17/2017	0.0201 (J)	
3/22/2017	0.0224 (J)	
4/18/2017	<0.1	
5/30/2017	<0.1	
8/23/2017	0.0253 (J)	
5/22/2018	0.0224 (J)	
6/12/2018	0.0214 (J)	
10/17/2018	0.0216 (J)	
11/19/2018	0.0237 (J)	
4/10/2019	0.0304 (J)	
5/14/2019	<0.1	
10/8/2019		<0.1
10/16/2019		0.0385 (J)
4/6/2020		<0.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	0.0241 (J)	
6/20/2016	0.0284 (J)	
8/8/2016	0.034 (J)	
8/24/2016	0.0316 (J)	
10/3/2016	0.0367 (J)	
10/26/2016	0.0331 (J)	
11/21/2016	0.035 (J)	
1/17/2017	0.0259 (J)	
3/22/2017	0.0243 (J)	
4/18/2017	0.0206 (J)	
5/31/2017	0.0234 (J)	
8/23/2017	0.0267 (J)	
5/22/2018	0.0251 (J)	
6/12/2018	0.0275 (J)	
10/17/2018	0.0321 (J)	
11/19/2018	0.0324 (J)	
4/10/2019	<0.1	
5/14/2019	<0.1	
10/8/2019		0.0371 (J)
10/16/2019		0.0419 (J)
4/6/2020		<0.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	0.028 (J)	
6/22/2016	0.0433 (J)	
8/9/2016	0.0429 (J)	
8/24/2016	0.0431 (J)	
10/4/2016	0.04 (J)	
10/26/2016	0.0375 (J)	
11/21/2016	0.0406 (J)	
1/18/2017	0.0548 (J)	
3/22/2017	0.0344 (J)	
4/18/2017	<0.1	
5/31/2017	0.0454 (J)	
8/23/2017	0.0425 (J)	
5/24/2018	0.0339 (J)	
6/12/2018	0.0371 (J)	
10/17/2018	0.0596 (J)	
11/19/2018	0.0514 (J)	
4/10/2019	<0.1	
5/14/2019	<0.1	
10/8/2019		0.0537 (J)
10/16/2019		0.05 (J)
4/6/2020		<0.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	0.0414 (J)	
6/20/2016	0.0434 (J)	
8/9/2016	0.0453 (J)	
8/24/2016	0.0451 (J)	
10/3/2016	0.0511 (J)	
10/26/2016	0.0507 (J)	
11/21/2016	0.0458 (J)	
1/18/2017	0.0445 (J)	
3/22/2017	0.0432 (J)	
4/18/2017	0.0409 (J)	
5/31/2017	0.0392 (J)	
8/23/2017	0.042 (J)	
5/23/2018	0.0433 (J)	
6/12/2018	0.0478 (J)	
10/17/2018	0.0468 (J)	
11/19/2018	0.0526 (J)	
4/10/2019	0.0438 (J)	
5/14/2019	<0.203	
10/10/2019		0.0487 (J)
10/16/2019		0.0505 (J)
4/6/2020		0.0428 (J)

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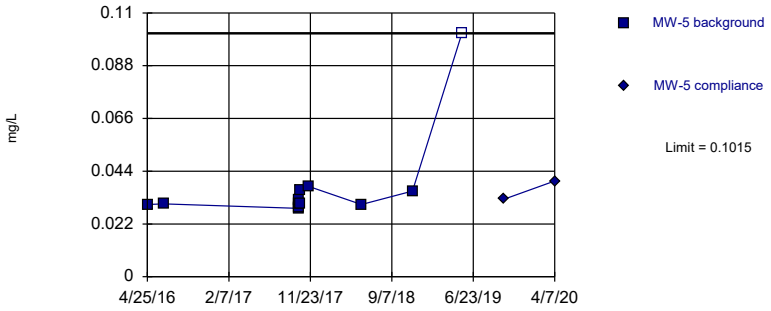
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 8.333% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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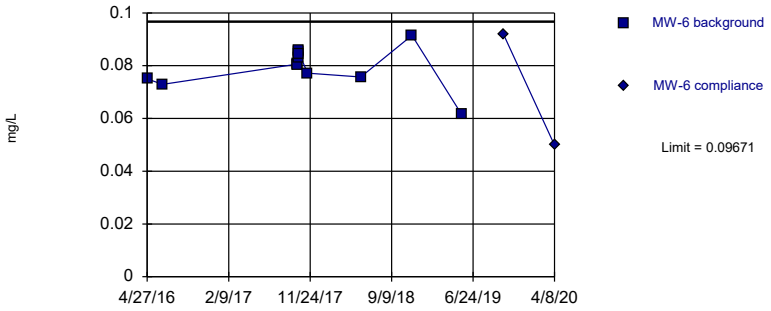
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07943, Std. Dev.=0.007739, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9479, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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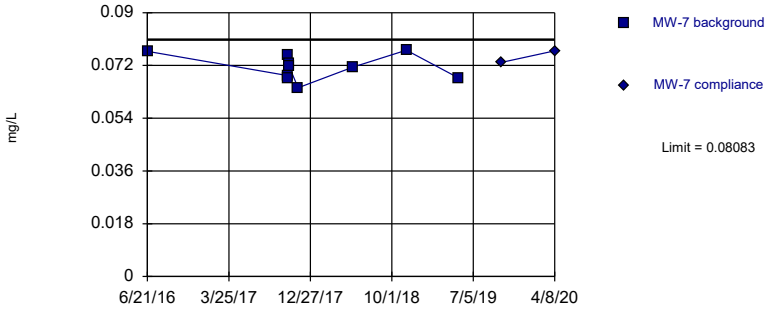
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07139, Std. Dev.=0.004105, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9512, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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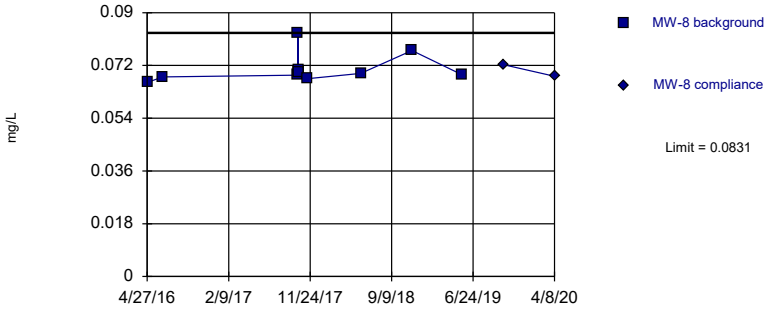
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	0.0301 (J)	
6/21/2016	0.0304 (J)	
10/12/2017	0.0285 (J)	
10/13/2017	0.0287 (J)	
10/14/2017	0.0305 (J)	
10/15/2017	0.0319 (J)	
10/16/2017	0.0304 (J)	
10/17/2017	0.036 (J)	
11/16/2017	0.0377 (J)	
5/23/2018	0.0301 (J)	
11/20/2018	0.0357 (J)	
5/14/2019	<0.203	
10/10/2019		0.0323 (J)
4/7/2020		0.0399 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	0.075 (J)	
6/21/2016	0.0729 (J)	
10/12/2017	0.0806 (J)	
10/13/2017	0.0803 (J)	
10/14/2017	0.0828 (J)	
10/15/2017	0.0852 (J)	
10/16/2017	0.0858 (J)	
10/17/2017	0.0846 (J)	
11/16/2017	0.0772 (J)	
5/23/2018	0.0757 (J)	
11/20/2018	0.0915 (J)	
5/15/2019	0.0616 (J)	
10/10/2019		0.0919 (J)
4/8/2020		0.0499 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	0.253 (o)	
6/21/2016	0.0768 (J)	
10/12/2017	0.0685 (J)	
10/13/2017	0.0674 (J)	
10/14/2017	0.0756 (J)	
10/15/2017	0.0719 (J)	
10/16/2017	0.0726 (J)	
10/17/2017	0.0716 (J)	
11/16/2017	0.0644 (J)	
5/23/2018	0.0715 (J)	
11/20/2018	0.0772 (J)	
5/15/2019	0.0678 (J)	
10/8/2019		0.073 (J)
4/8/2020		0.077 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	0.0662 (J)	
6/21/2016	0.0681 (J)	
10/12/2017	0.0687 (J)	
10/13/2017	0.0831 (J)	
10/14/2017	0.0702 (J)	
10/15/2017	0.0702 (J)	
10/16/2017	0.0707 (J)	
10/17/2017	0.0695 (J)	
11/16/2017	0.0675 (J)	
5/23/2018	0.0693 (J)	
11/20/2018	0.0771 (J)	
5/15/2019	0.0689 (J)	
10/9/2019		0.0723 (J)
4/8/2020		0.0683 (J)

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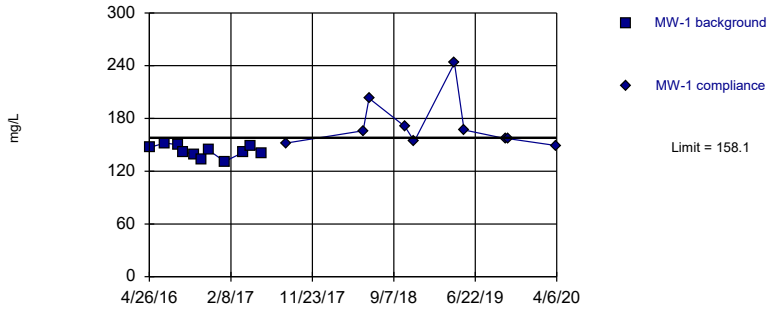
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=142.5, Std. Dev.=6.743, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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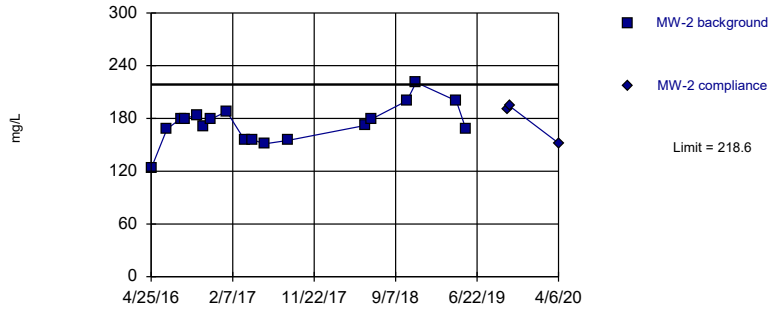
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=173.9, Std. Dev.=22.02, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9699, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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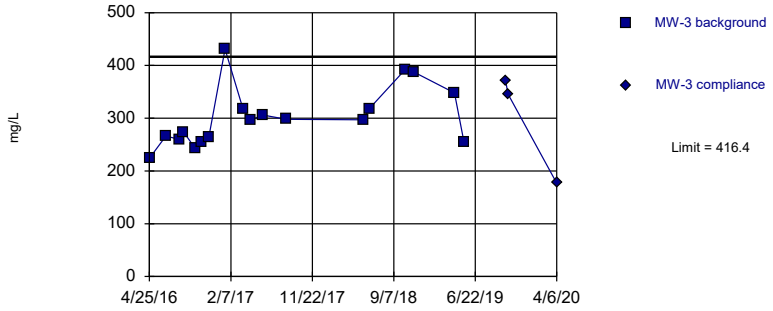
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=301.6, Std. Dev.=56.48, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9168, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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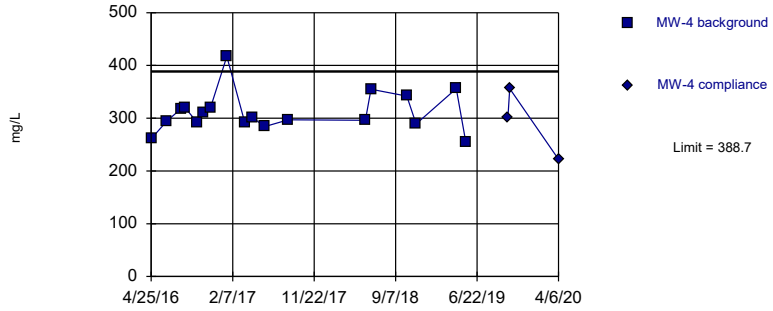
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=311.2, Std. Dev.=38.16, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	147	
6/20/2016	152	
8/8/2016	150	
8/24/2016	142	
10/3/2016	139	
10/26/2016	133	
11/21/2016	144	
1/17/2017	131	
3/22/2017	141	
4/18/2017	149	
5/30/2017	140	
8/23/2017		152
5/22/2018		166
6/12/2018		203
10/17/2018		171
11/19/2018		154
4/10/2019		243
5/14/2019		167
10/8/2019		157
10/16/2019		157
4/6/2020		149

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	123	
6/20/2016	168	
8/8/2016	180	
8/24/2016	180	
10/3/2016	184	
10/26/2016	171	
11/21/2016	179	
1/17/2017	188	
3/22/2017	155	
4/18/2017	156	
5/31/2017	151	
8/23/2017	155	
5/22/2018	172	
6/12/2018	179	
10/17/2018	200	
11/19/2018	221	
4/10/2019	200	
5/14/2019	168	
10/8/2019		190
10/16/2019		194
4/6/2020		152

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	224	
6/22/2016	266	
8/9/2016	260	
8/24/2016	274	
10/4/2016	243	
10/26/2016	254	
11/21/2016	263	
1/18/2017	431	
3/22/2017	318	
4/18/2017	296	
5/31/2017	306	
8/23/2017	298	
5/24/2018	297	
6/12/2018	318	
10/17/2018	392	
11/19/2018	387	
4/10/2019	348	
5/14/2019	254	
10/8/2019		371
10/16/2019		346
4/6/2020		177

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	261	
6/20/2016	295	
8/9/2016	318	
8/24/2016	319	
10/3/2016	293	
10/26/2016	311	
11/21/2016	320	
1/18/2017	417	
3/22/2017	292	
4/18/2017	302	
5/31/2017	284	
8/23/2017	297	
5/23/2018	296	
6/12/2018	355	
10/17/2018	342	
11/19/2018	289	
4/10/2019	356	
5/14/2019	254	
10/10/2019		302
10/16/2019		356
4/6/2020		222

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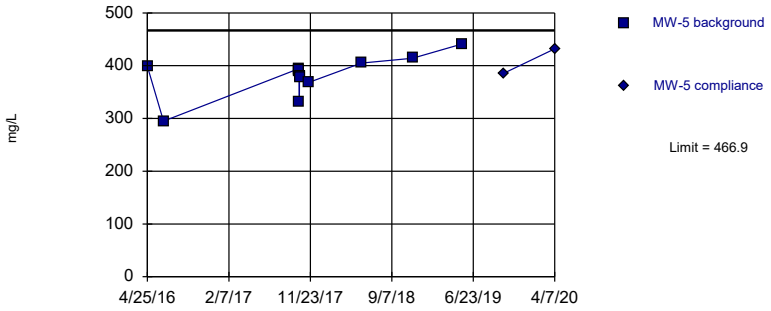
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=382.1, Std. Dev.=38.01, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9172, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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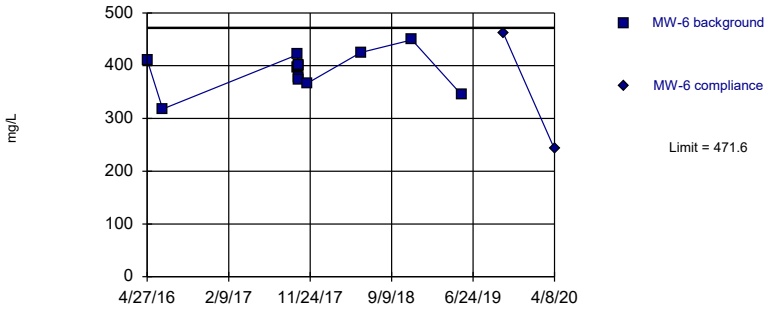
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=390.4, Std. Dev.=36.38, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9786, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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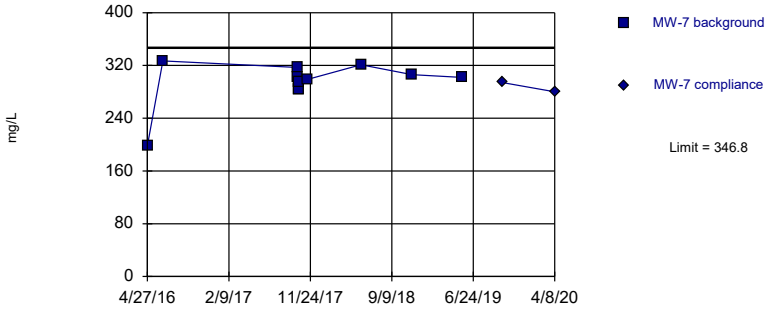
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=2.6e7, Std. Dev.=6944823, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8464, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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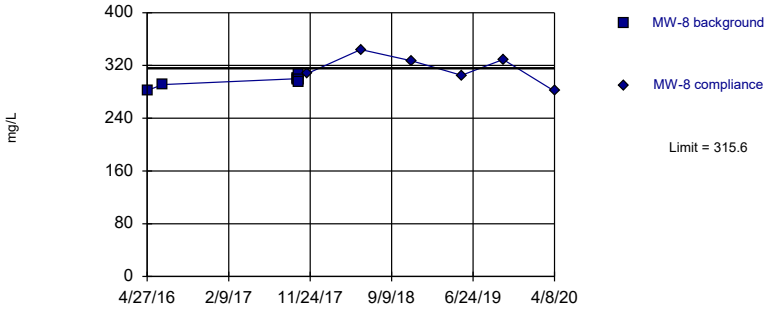
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=296.3, Std. Dev.=7.402, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.932, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	399	
6/21/2016	295	
10/12/2017	394	
10/13/2017	389	
10/14/2017	391	
10/15/2017	332	
10/16/2017	380	
10/17/2017	377	
11/16/2017	368	
5/23/2018	405	
11/20/2018	414	
5/14/2019	441	
10/10/2019		386
4/7/2020		432

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	411	
6/21/2016	318	
10/12/2017	421	
10/13/2017	396	
10/14/2017	400	
10/15/2017	378	
10/16/2017	402	
10/17/2017	373	
11/16/2017	367	
5/23/2018	425	
11/20/2018	449	
5/15/2019	345	
10/10/2019		461
4/8/2020		242

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	198	
6/21/2016	327	
10/12/2017	317	
10/13/2017	302	
10/14/2017	283	
10/15/2017	294	
10/16/2017	284	
10/17/2017	294	
11/16/2017	299	
5/23/2018	321	
11/20/2018	306	
5/15/2019	302	
10/8/2019		294
4/8/2020		280

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	282	
6/21/2016	291	
10/12/2017	300	
10/13/2017	298	
10/14/2017	299	
10/15/2017	307	
10/16/2017	299	
10/17/2017	294	
11/16/2017		308
5/23/2018		344
11/20/2018		327
5/15/2019		305
10/9/2019		329
4/8/2020		281

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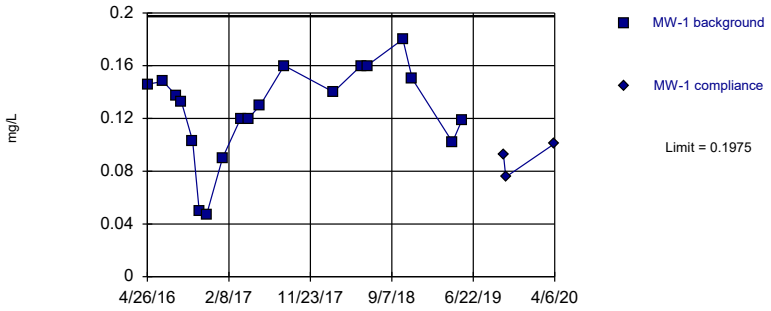
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1261, Std. Dev.=0.03556, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.863. Kappa = 2.01 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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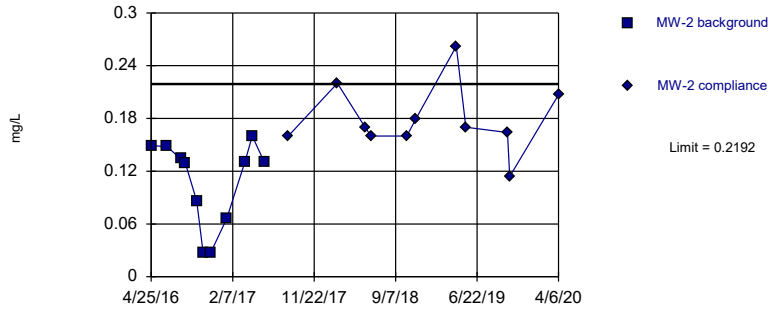
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1078, Std. Dev.=0.04841, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8409, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:29 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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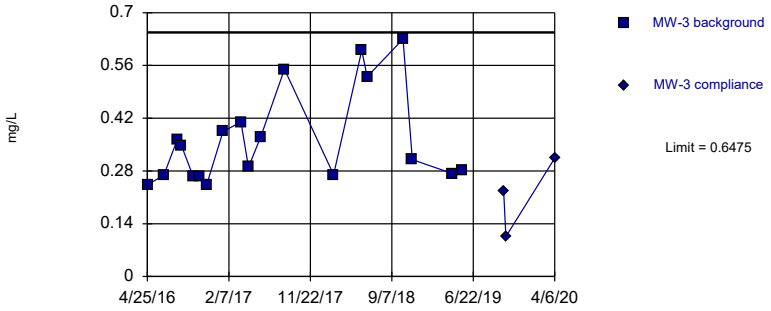
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.063, Std. Dev.=0.3126, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.875, critical = 0.863. Kappa = 2.01 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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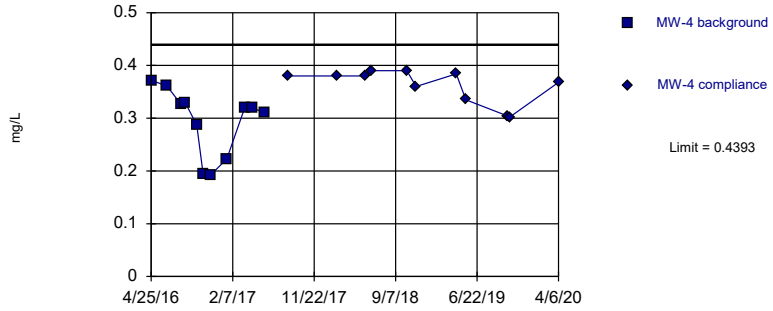
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.294, Std. Dev.=0.06319, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8703, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	0.146 (J)	
6/20/2016	0.148 (J)	
8/8/2016	0.137 (J)	
8/24/2016	0.133 (J)	
10/3/2016	0.103 (J)	
10/26/2016	0.05 (J)	
11/21/2016	0.047 (J)	
1/17/2017	0.09 (J)	
3/22/2017	0.12	
4/18/2017	0.12	
5/30/2017	0.13	
8/23/2017	0.16	
2/13/2018	0.14 (D)	
5/22/2018	0.16	
6/12/2018	0.16	
10/17/2018	0.18	
11/19/2018	0.15	
4/10/2019	0.102	
5/14/2019	0.119	
10/8/2019		0.0924 (J)
10/16/2019		0.0756 (J)
4/6/2020		0.101

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	0.149 (J)	
6/20/2016	0.148 (J)	
8/8/2016	0.134 (J)	
8/24/2016	0.129 (J)	
10/3/2016	0.086 (J)	
10/26/2016	0.027 (J)	
11/21/2016	0.027 (J)	
1/17/2017	0.066 (J)	
3/22/2017	0.13	
4/18/2017	0.16	
5/31/2017	0.13	
8/23/2017		0.16
2/13/2018		0.22 (D)
5/22/2018		0.17
6/12/2018		0.16
10/17/2018		0.16
11/19/2018		0.18
4/10/2019		0.262
5/14/2019		0.17
10/8/2019		0.164
10/16/2019		0.114
4/6/2020		0.207

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	0.243 (J)	
6/22/2016	0.269 (J)	
8/9/2016	0.363	
8/24/2016	0.346	
10/4/2016	0.266 (J)	
10/26/2016	0.266 (J)	
11/21/2016	0.244 (J)	
1/18/2017	0.385	
3/22/2017	0.41	
4/18/2017	0.29	
5/31/2017	0.37	
8/23/2017	0.55	
2/13/2018	0.27 (D)	
5/24/2018	0.6	
6/12/2018	0.53	
10/17/2018	0.63	
11/19/2018	0.31	
4/10/2019	0.273	
5/14/2019	0.281	
10/8/2019		0.225
10/16/2019		0.106
4/6/2020		0.314

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	0.372	
6/20/2016	0.361	
8/9/2016	0.326	
8/24/2016	0.329	
10/3/2016	0.287 (J)	
10/26/2016	0.194 (J)	
11/21/2016	0.192 (J)	
1/18/2017	0.223 (J)	
3/22/2017	0.32	
4/18/2017	0.32	
5/31/2017	0.31	
8/23/2017		0.38
2/13/2018		0.38 (D)
5/23/2018		0.38
6/12/2018		0.39
10/17/2018		0.39
11/19/2018		0.36
4/10/2019		0.384
5/14/2019		0.335
10/10/2019		0.304
10/16/2019		0.302
4/6/2020		0.368

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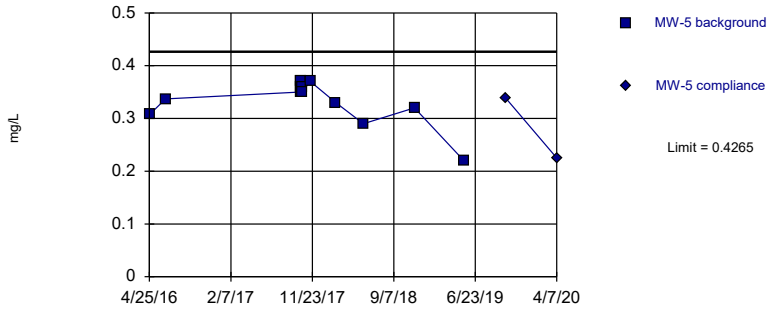
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3334, Std. Dev.=0.04245, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8179, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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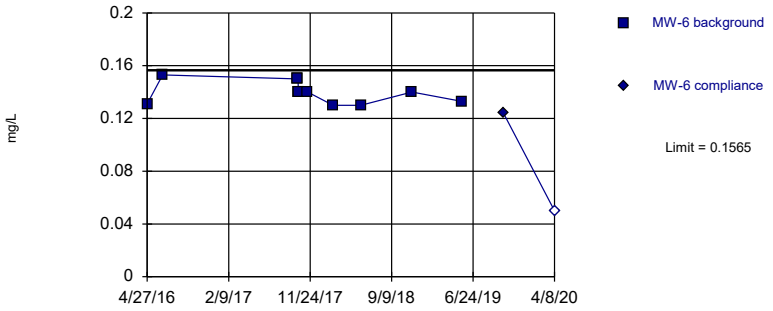
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1398, Std. Dev.=0.007628, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8775, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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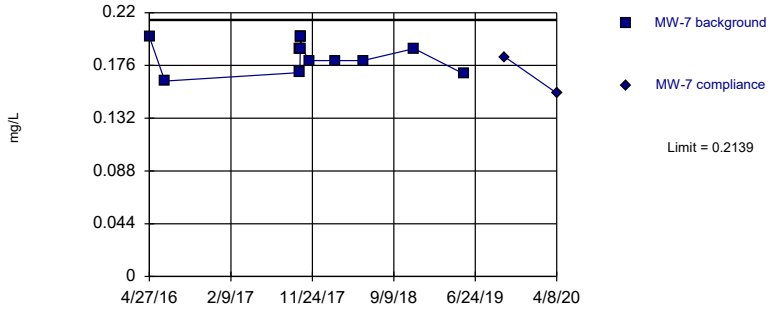
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1855, Std. Dev.=0.01295, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8949, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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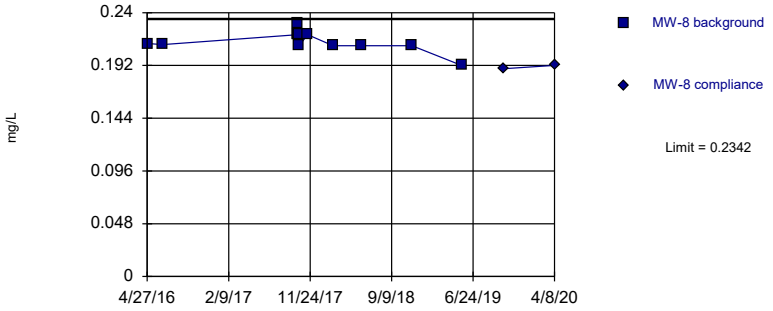
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2142, Std. Dev.=0.009112, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8671, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	0.307	
6/21/2016	0.337	
10/12/2017	0.35	
10/13/2017	0.36	
10/14/2017	0.37	
10/15/2017	0.37	
10/16/2017	0.36	
10/17/2017	0.35	
11/16/2017	0.37	
2/14/2018	0.33 (D)	
5/23/2018	0.29	
11/20/2018	0.32	
5/14/2019	0.22	
10/10/2019		0.338
4/7/2020		0.225

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	0.131 (J)	
6/21/2016	0.153 (J)	
10/12/2017	0.15	
10/13/2017	0.15	
10/14/2017	0.14	
10/15/2017	0.14	
10/16/2017	0.14	
10/17/2017	0.14	
11/16/2017	0.14	
2/14/2018	0.13 (D)	
5/23/2018	0.13	
11/20/2018	0.14	
5/15/2019	0.133	
10/10/2019		0.124
4/8/2020		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	0.2 (J)	
6/21/2016	0.163 (J)	
10/12/2017	0.17	
10/13/2017	0.19	
10/14/2017	0.2	
10/15/2017	0.2	
10/16/2017	0.2	
10/17/2017	0.19	
11/16/2017	0.18	
2/14/2018	0.18 (D)	
5/23/2018	0.18	
11/20/2018	0.19	
5/15/2019	0.169	
10/8/2019		0.183
4/8/2020		0.153

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	0.212 (J)	
6/21/2016	0.211 (J)	
10/12/2017	0.22	
10/13/2017	0.23	
10/14/2017	0.22	
10/15/2017	0.22	
10/16/2017	0.22	
10/17/2017	0.21	
11/16/2017	0.22	
2/14/2018	0.21 (D)	
5/23/2018	0.21	
11/20/2018	0.21	
5/15/2019	0.192	
10/9/2019		0.189
4/8/2020		0.192

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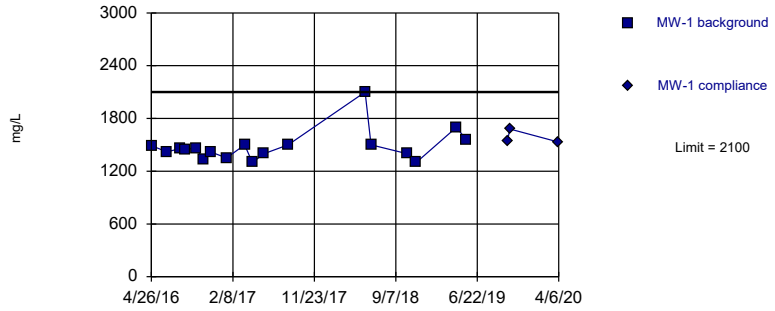
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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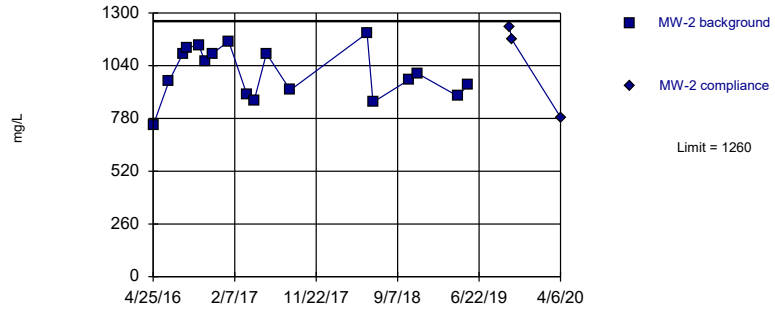
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1003, Std. Dev.=126.2, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.957, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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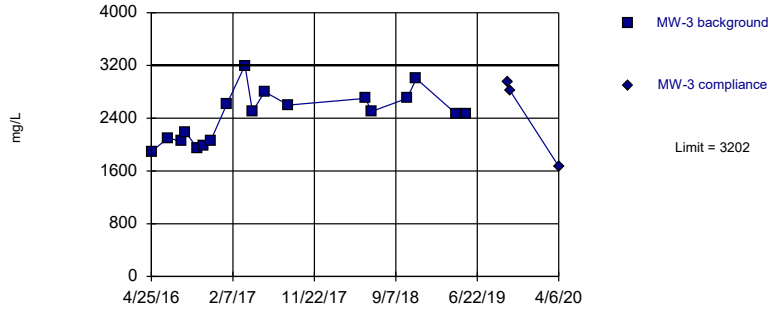
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2431, Std. Dev.=379.6, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9476, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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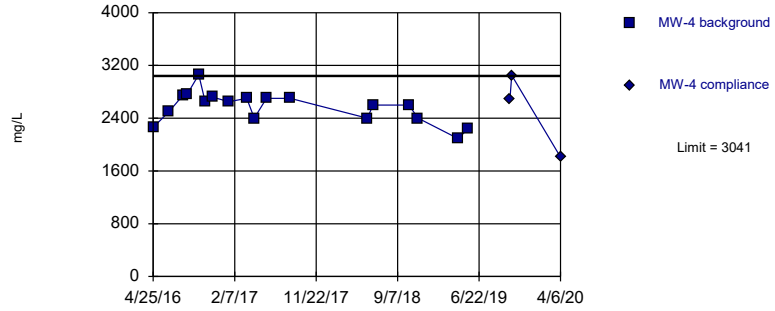
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2566, Std. Dev.=233.5, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9529, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	1490	
6/20/2016	1420	
8/8/2016	1460	
8/24/2016	1450	
10/3/2016	1460	
10/26/2016	1330	
11/21/2016	1420	
1/17/2017	1350	
3/22/2017	1500	
4/18/2017	1300	
5/30/2017	1400	
8/23/2017	1500	
5/22/2018	2100	
6/12/2018	1500	
10/17/2018	1400	
11/19/2018	1300	
4/10/2019	1700	
5/14/2019	1560	
10/8/2019		1540
10/16/2019		1680
4/6/2020		1530

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	745	
6/20/2016	964	
8/8/2016	1100	
8/24/2016	1130	
10/3/2016	1140	
10/26/2016	1060	
11/21/2016	1100	
1/17/2017	1160	
3/22/2017	900	
4/18/2017	870	
5/31/2017	1100	
8/23/2017	920	
5/22/2018	1200	
6/12/2018	860	
10/17/2018	970	
11/19/2018	1000	
4/10/2019	889	
5/14/2019	948	
10/8/2019		1230
10/16/2019		1170
4/6/2020		786

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	1890	
6/22/2016	2100	
8/9/2016	2050	
8/24/2016	2190	
10/4/2016	1950	
10/26/2016	1980	
11/21/2016	2060	
1/18/2017	2620	
3/22/2017	3200	
4/18/2017	2500	
5/31/2017	2800	
8/23/2017	2600	
5/24/2018	2700	
6/12/2018	2500	
10/17/2018	2700	
11/19/2018	3000	
4/10/2019	2460	
5/14/2019	2460	
10/8/2019		2950
10/16/2019		2820
4/6/2020		1670

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	2260	
6/20/2016	2500	
8/9/2016	2750	
8/24/2016	2770	
10/3/2016	3060	
10/26/2016	2650	
11/21/2016	2720	
1/18/2017	2650	
3/22/2017	2700	
4/18/2017	2400	
5/31/2017	2700	
8/23/2017	2700	
5/23/2018	2400	
6/12/2018	2600	
10/17/2018	2600	
11/19/2018	2400	
4/10/2019	2090	
5/14/2019	2240	
10/10/2019		2690
10/16/2019		3050
4/6/2020		1810

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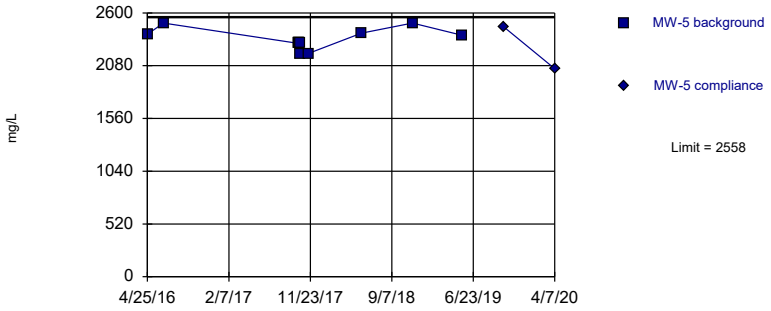
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2339, Std. Dev.=98.21, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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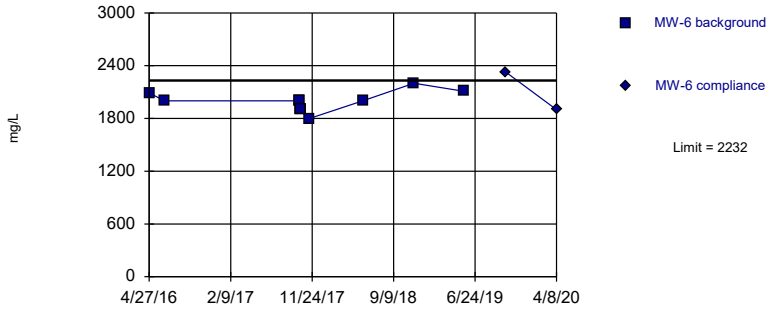
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1983, Std. Dev.=111.5, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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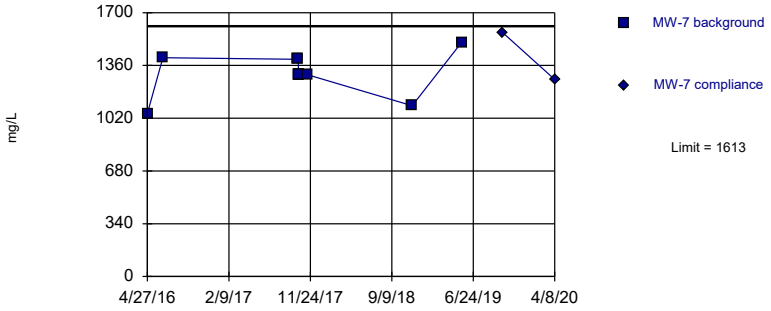
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1306, Std. Dev.=133.5, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8855, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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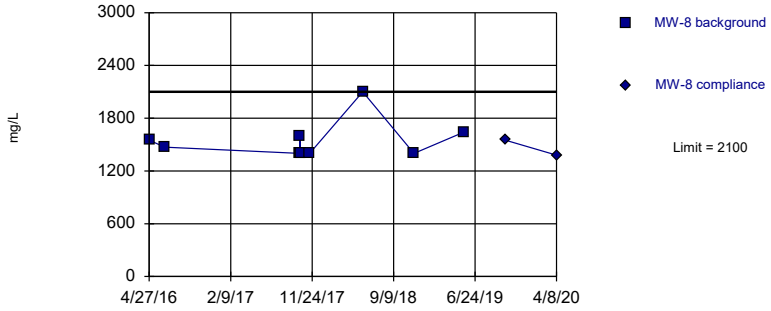
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	2390	
6/21/2016	2500	
10/12/2017	2300	
10/13/2017	2300	
10/14/2017	2300	
10/15/2017	2300	
10/16/2017	2300	
10/17/2017	2200	
11/16/2017	2200	
5/23/2018	2400	
11/20/2018	2500	
5/14/2019	2380	
10/10/2019		2460
4/7/2020		2050

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	2090	
6/21/2016	2000	
10/12/2017	2000	
10/13/2017	2000	
10/14/2017	1900	
10/15/2017	1900	
10/16/2017	1900	
10/17/2017	1900	
11/16/2017	1800	
5/23/2018	2000	
11/20/2018	2200	
5/15/2019	2110	
10/10/2019		2330
4/8/2020		1900

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	1050	
6/21/2016	1410	
10/12/2017	1400	
10/13/2017	1400	
10/14/2017	1300	
10/15/2017	1300	
10/16/2017	1300	
10/17/2017	1300	
11/16/2017	1300	
5/23/2018	1900 (o)	
11/20/2018	1100	
5/15/2019	1510	
10/8/2019		1570
4/8/2020		1270

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	1550	
6/21/2016	1470	
10/12/2017	1400	
10/13/2017	1600	
10/14/2017	1400	
10/15/2017	1400	
10/16/2017	1400	
10/17/2017	1400	
11/16/2017	1400	
5/23/2018	2100	
11/20/2018	1400	
5/15/2019	1640	
10/9/2019		1550
4/8/2020		1380

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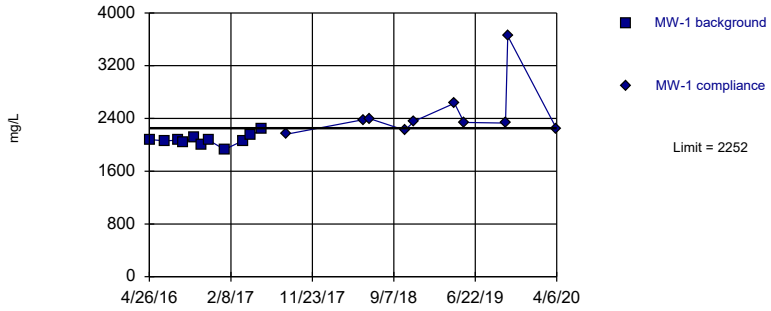
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2073, Std. Dev.=78.11, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9394, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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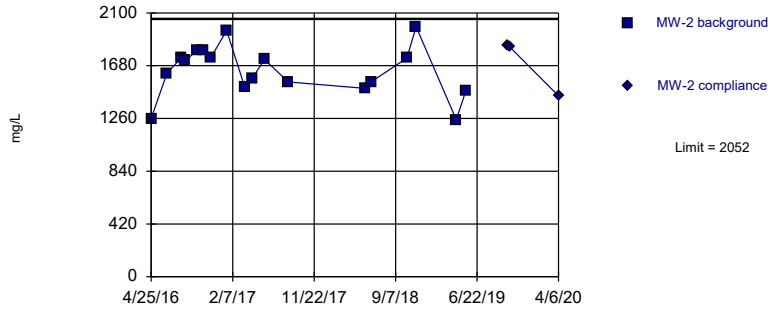
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1640, Std. Dev.=202.8, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.952, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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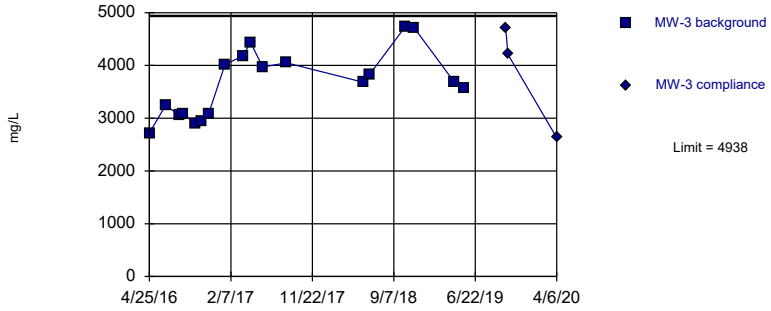
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3661, Std. Dev.=628.6, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9455, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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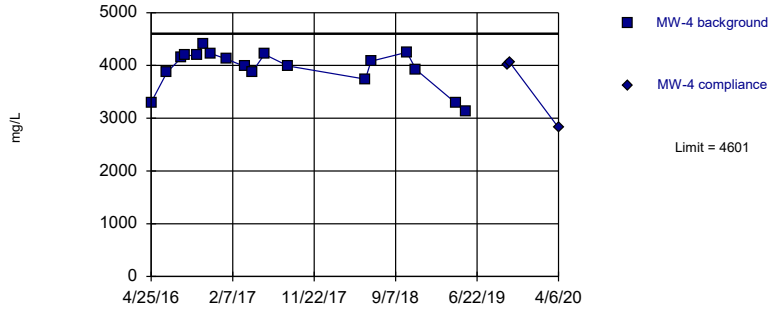
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=1.6e7, Std. Dev.=2719774, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8799, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	2080 (D)	
6/20/2016	2060 (D)	
8/8/2016	2070 (D)	
8/24/2016	2040	
10/3/2016	2110 (D)	
10/26/2016	2000	
11/21/2016	2070 (D)	
1/17/2017	1930 (D)	
3/22/2017	2060 (D)	
4/18/2017	2140	
5/30/2017	2240 (D)	
8/23/2017		2160 (D)
5/22/2018		2380 (D)
6/12/2018		2400
10/17/2018		2220
11/19/2018		2360
4/10/2019		2630
5/14/2019		2340 (D)
10/8/2019		2330
10/16/2019		3650
4/6/2020		2240

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	1260 (D)	
6/20/2016	1620 (D)	
8/8/2016	1740 (D)	
8/24/2016	1720	
10/3/2016	1800 (D)	
10/26/2016	1800	
11/21/2016	1740 (D)	
1/17/2017	1960 (D)	
3/22/2017	1510 (D)	
4/18/2017	1580	
5/31/2017	1730 (D)	
8/23/2017	1550 (D)	
5/22/2018	1500 (D)	
6/12/2018	1550	
10/17/2018	1740	
11/19/2018	1990	
4/10/2019	1250	
5/14/2019	1480	
10/8/2019		1840
10/16/2019		1830
4/6/2020		1440

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	2720 (D)	
6/22/2016	3250 (D)	
8/9/2016	3050 (D)	
8/24/2016	3080	
10/4/2016	2900 (D)	
10/26/2016	2940	
11/21/2016	3090 (D)	
1/18/2017	4020 (D)	
3/22/2017	4180 (D)	
4/18/2017	4440	
5/31/2017	3970 (D)	
8/23/2017	4050 (D)	
5/24/2018	3680 (D)	
6/12/2018	3820	
10/17/2018	4730	
11/19/2018	4710	
4/10/2019	3680	
5/14/2019	3580 (D)	
10/8/2019		4720
10/16/2019		4210
4/6/2020		2630

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	3300 (D)	
6/20/2016	3870 (D)	
8/9/2016	4140 (D)	
8/24/2016	4190	
10/3/2016	4190 (D)	
10/26/2016	4400	
11/21/2016	4230 (D)	
1/18/2017	4120 (D)	
3/22/2017	3980 (D)	
4/18/2017	3880	
5/31/2017	4210 (D)	
8/23/2017	3990 (D)	
5/23/2018	3740 (D)	
6/12/2018	4080	
10/17/2018	4250	
11/19/2018	3920	
4/10/2019	3280	
5/14/2019	3130 (D)	
10/10/2019		4000
10/16/2019		4060
4/6/2020		2820

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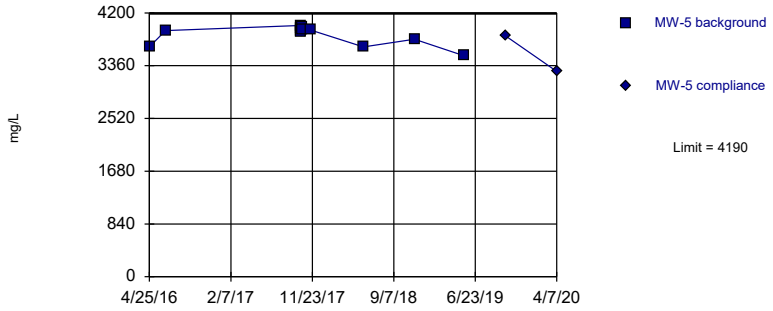
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3846, Std. Dev.=154.3, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8398, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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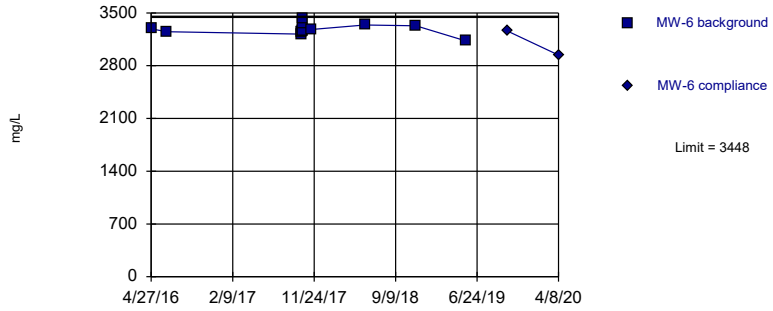
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3283, Std. Dev.=74.36, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9669, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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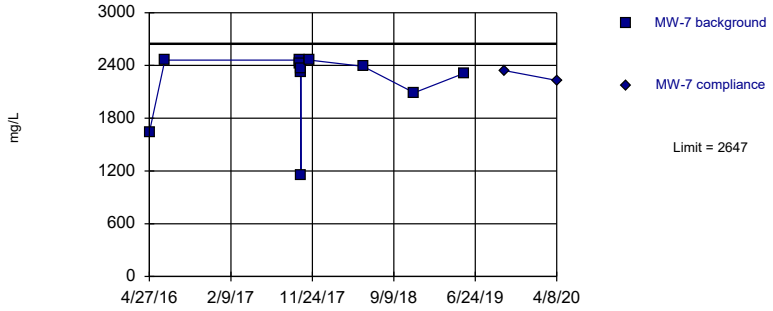
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=6.3e16, Std. Dev.=3.0e16, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8216, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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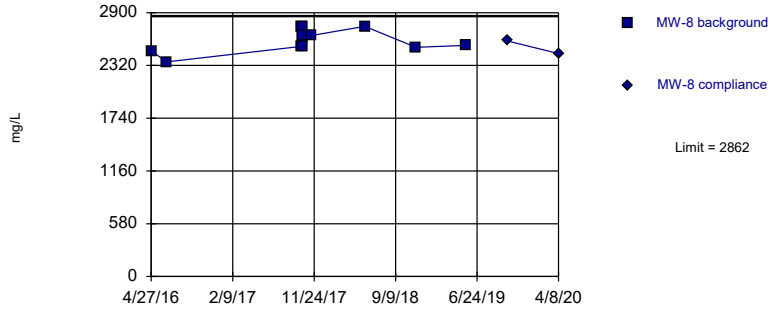
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2593, Std. Dev.=120.2, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9303, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:30 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	3660	
6/21/2016	3920	
10/12/2017	4000	
10/13/2017	3960	
10/14/2017	3910	
10/15/2017	3890	
10/16/2017	3980	
10/17/2017	3940	
11/16/2017	3930	
5/23/2018	3660	
11/20/2018	3780	
5/14/2019	3520	
10/10/2019		3830
4/7/2020		3270

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	3290	
6/21/2016	3250	
10/12/2017	3220	
10/13/2017	3250	
10/14/2017	3260	
10/15/2017	3260	
10/16/2017	3360	
10/17/2017	3420	
11/16/2017	3280	
5/23/2018	3340	
11/20/2018	3330	
5/15/2019	3130	
10/10/2019		3260
4/8/2020		2940

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	1640	
6/21/2016	2460	
10/12/2017	2460	
10/13/2017	2420	
10/14/2017	2320	
10/15/2017	1150	
10/16/2017	2320	
10/17/2017	2360	
11/16/2017	2460	
5/23/2018	2390	
11/20/2018	2090	
5/15/2019	2310	
10/8/2019		2340
4/8/2020		2230

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:32 AM View: Intrawell PL

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	2480	
6/21/2016	2360	
10/12/2017	2530	
10/13/2017	2740	
10/14/2017	2630	
10/15/2017	2530	
10/16/2017	2740	
10/17/2017	2650	
11/16/2017	2650	
5/23/2018	2750	
11/20/2018	2520	
5/15/2019	2540	
10/9/2019		2590
4/8/2020		2450

Trend Test - All Results

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:34 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	MW-1 (bg)	0.00808	11	87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	0.1407	11	87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.04275	38	87	No	21	9.524	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.04591	-36	-87	No	21	4.762	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-5	-0.0101	-6	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-6	0.5447	39	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-7	0	0	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-42.25	-25	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.0113	-49	-87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04689	84	87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	-0.1679	-43	-92	No	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-4 (bg)	0.01719	64	92	No	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-5	0.007774	19	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	MW-7	-0.00345	-10	-53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	**MW-8**	**0.05301**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**

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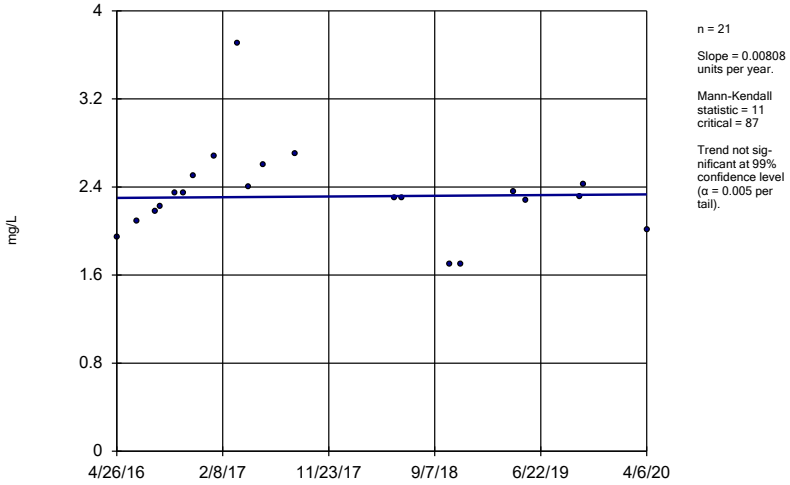
Sen's Slope Estimator

MW-1 (bg)



n = 21

Slope = 0.00808 units per year.

Mann-Kendall statistic = 11
critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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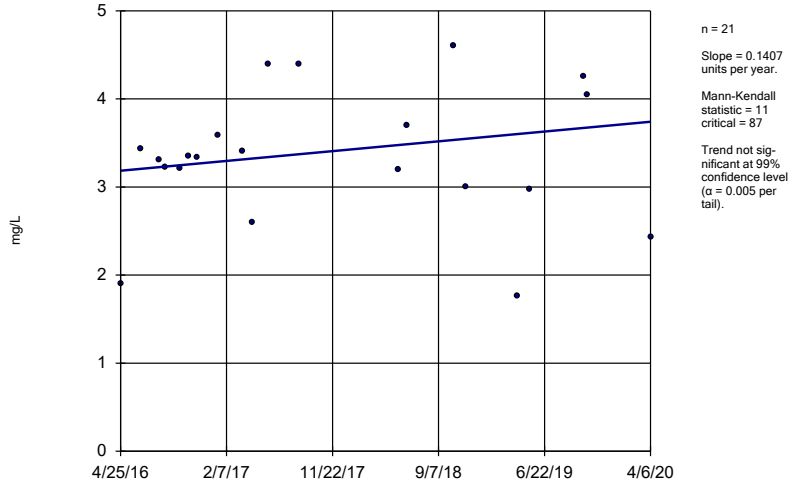
Sen's Slope Estimator

MW-2 (bg)



n = 21

Slope = 0.1407 units per year.

Mann-Kendall statistic = 11
critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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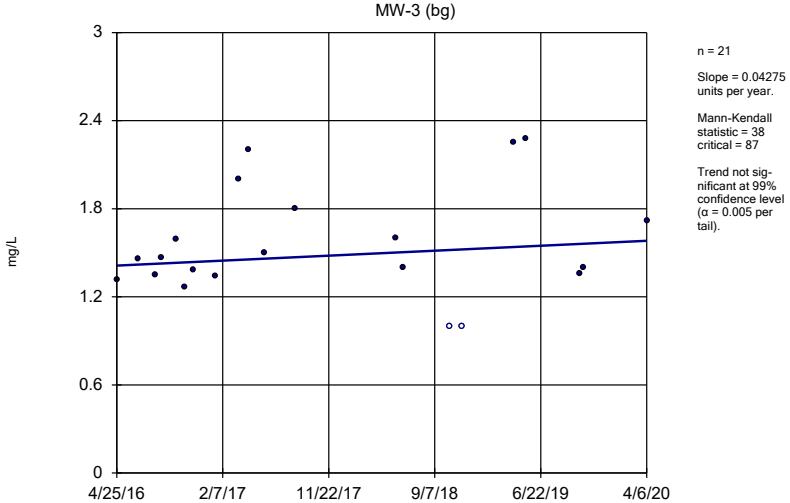
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 21

Slope = 0.04275 units per year.

Mann-Kendall statistic = 38
critical = 87

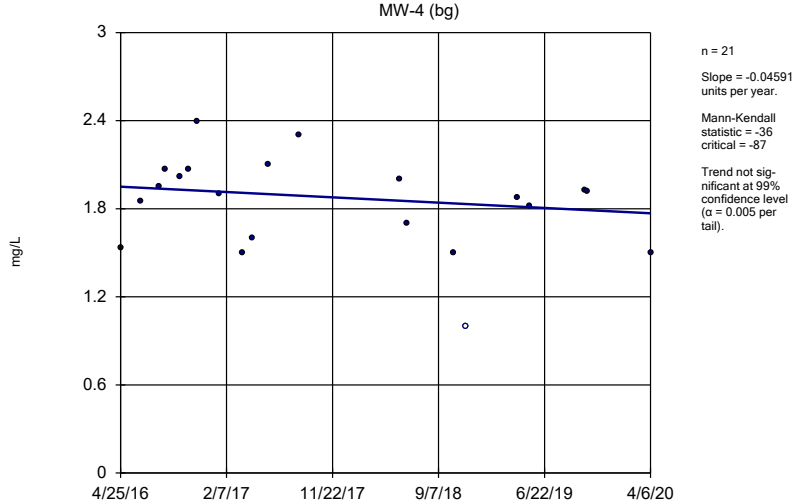
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)



n = 21

Slope = -0.04591 units per year.

Mann-Kendall statistic = -36
critical = -87

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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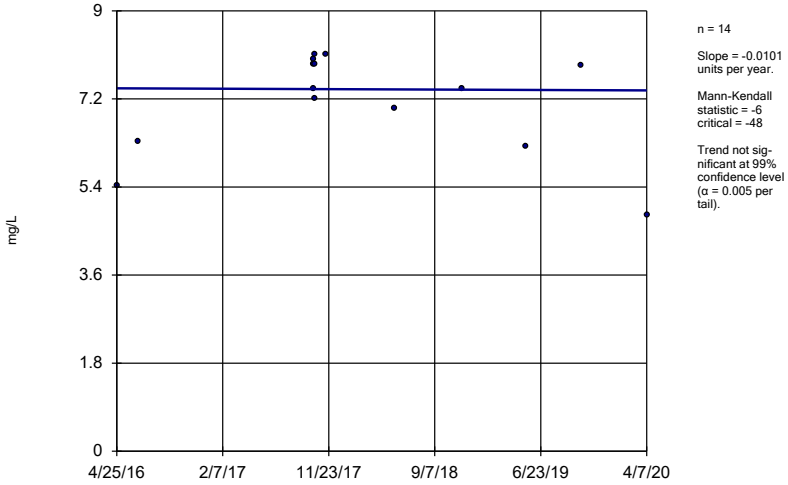
Sen's Slope Estimator

MW-5



n = 14

Slope = -0.0101 units per year.

Mann-Kendall statistic = -6
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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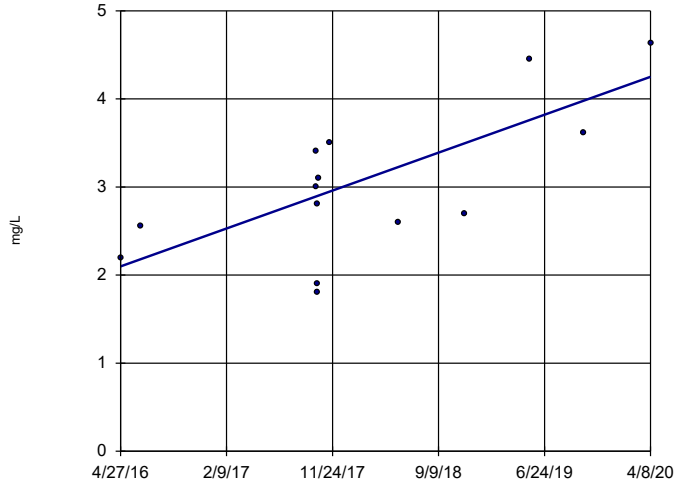
Sen's Slope Estimator

MW-6



n = 14

Slope = 0.5447 units per year.

Mann-Kendall statistic = 39
critical = 48

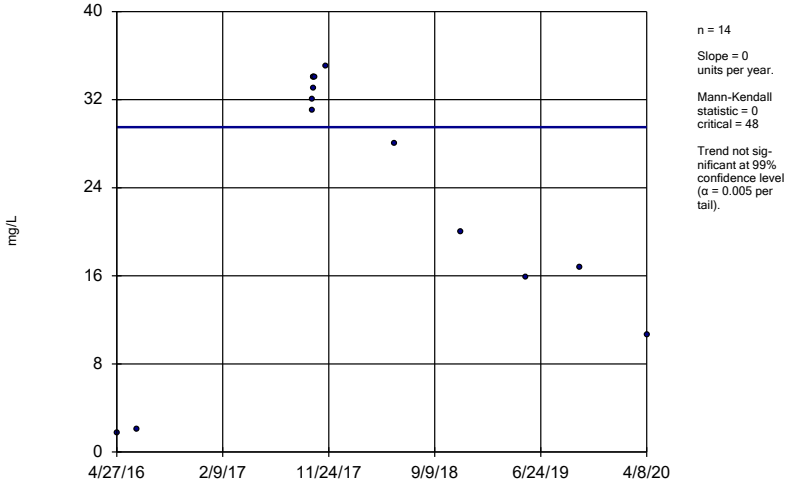
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-7



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 48

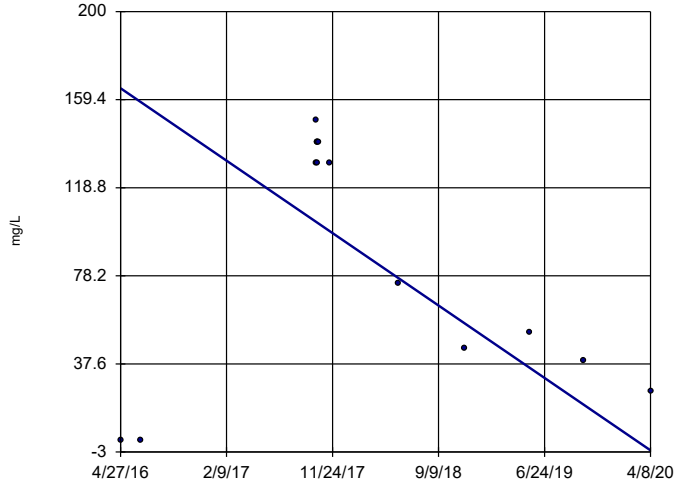
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-8



n = 14

Slope = -42.25 units per year.

Mann-Kendall statistic = -25
critical = -48

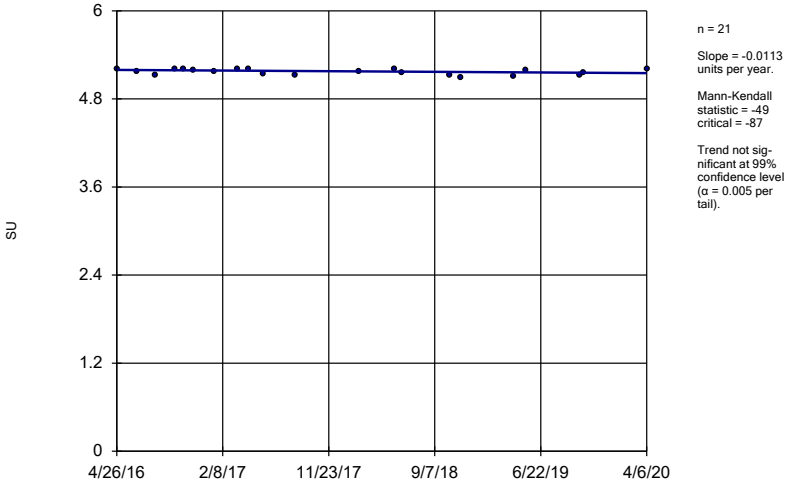
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-1 (bg)



n = 21

Slope = -0.0113 units per year.

Mann-Kendall statistic = -49
critical = -87

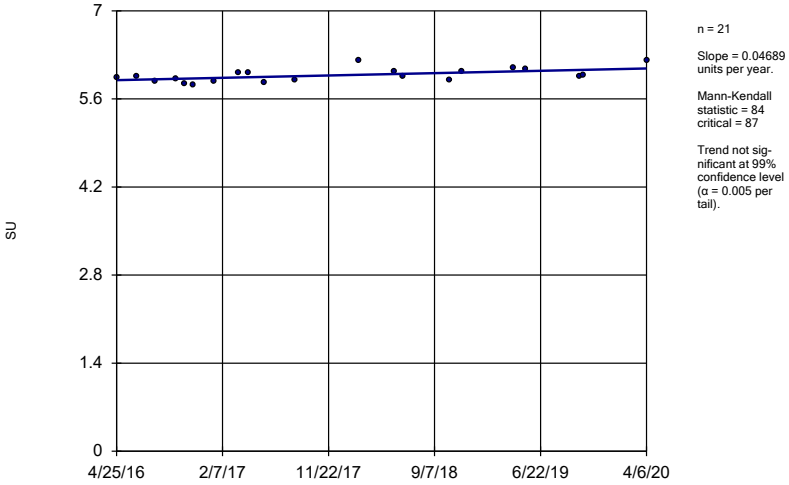
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-2 (bg)



n = 21

Slope = 0.04689 units per year.

Mann-Kendall statistic = 84
critical = 87

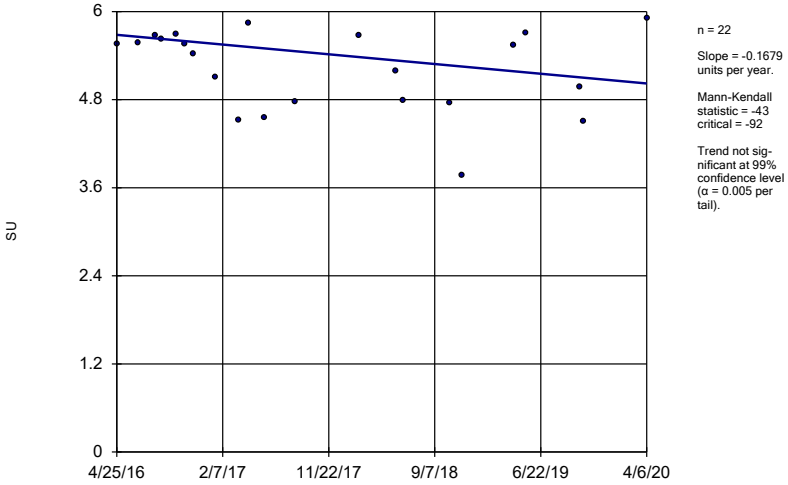
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-3 (bg)



n = 22

Slope = -0.1679 units per year.

Mann-Kendall statistic = -43
critical = -92

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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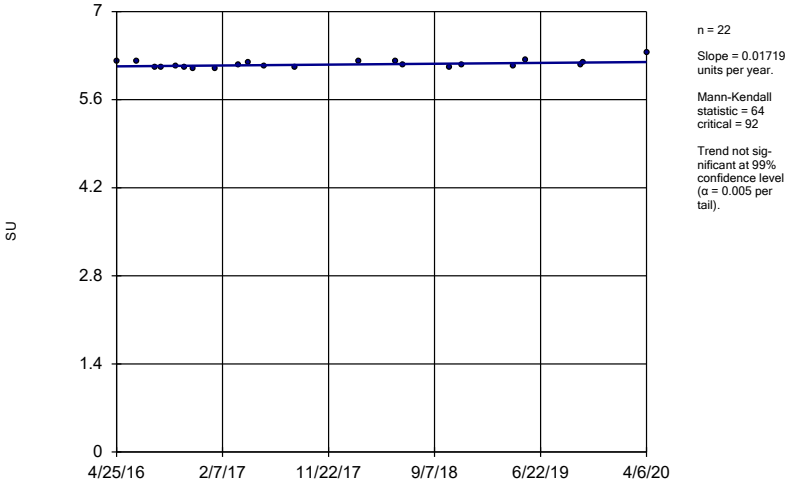
Sen's Slope Estimator

MW-4 (bg)



n = 22

Slope = 0.01719 units per year.

Mann-Kendall statistic = 64
critical = 92

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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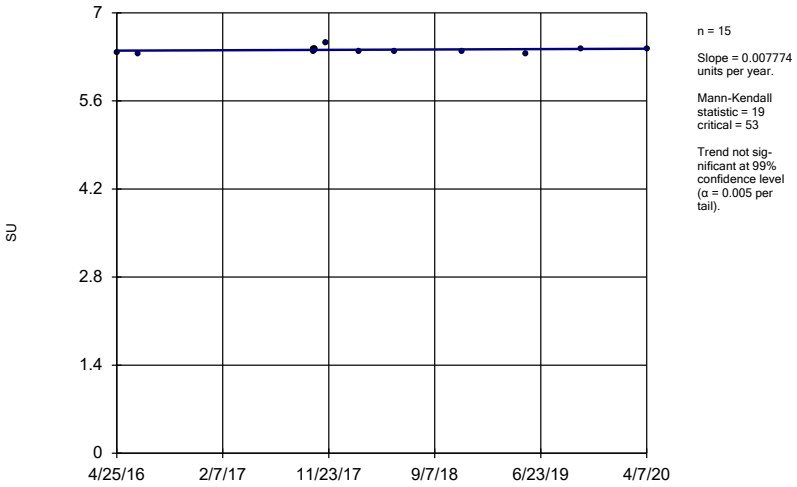
Sen's Slope Estimator

MW-5



n = 15

Slope = 0.007774 units per year.

Mann-Kendall statistic = 19
critical = 53

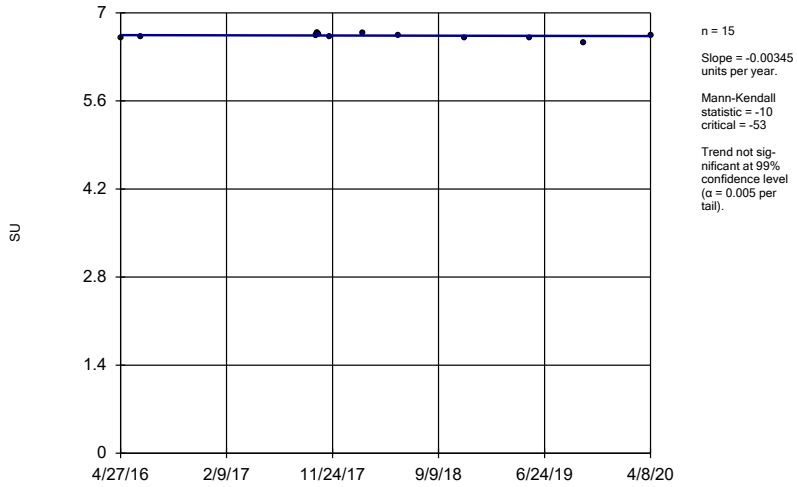
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-7



n = 15

Slope = -0.00345 units per year.

Mann-Kendall statistic = -10
critical = -53

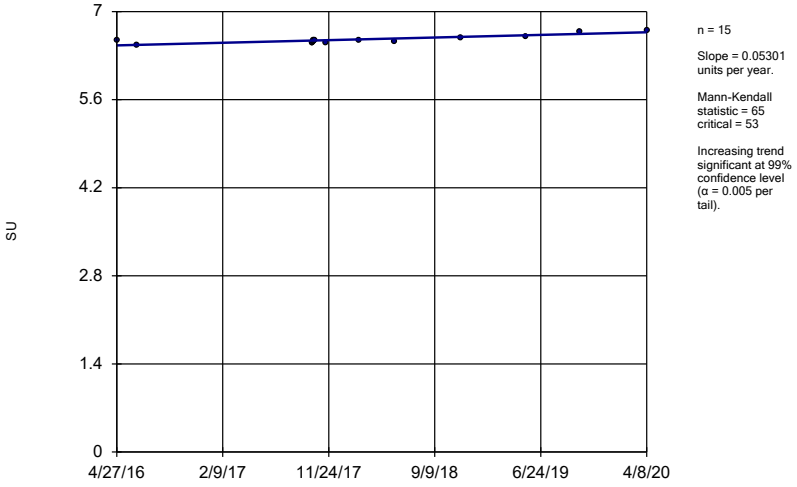
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-8



n = 15

Slope = 0.05301 units per year.

Mann-Kendall statistic = 65
critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 7/22/2020 10:33 AM View: Trend Test
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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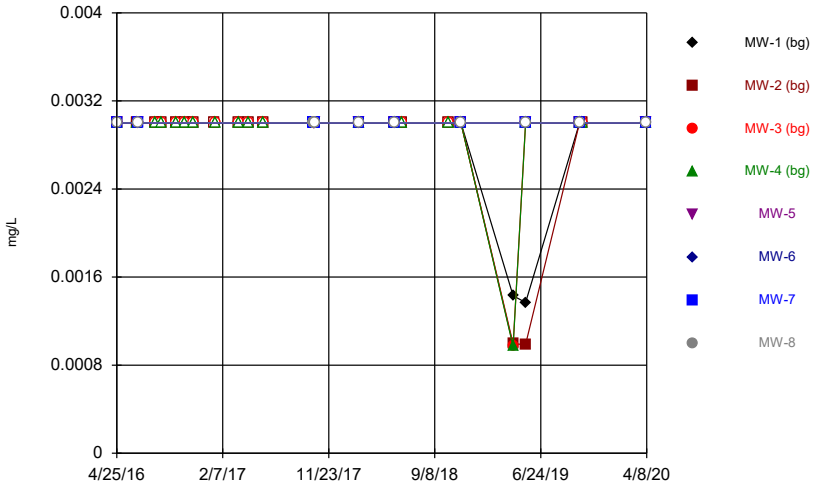
Hollow symbols indicate censored values.

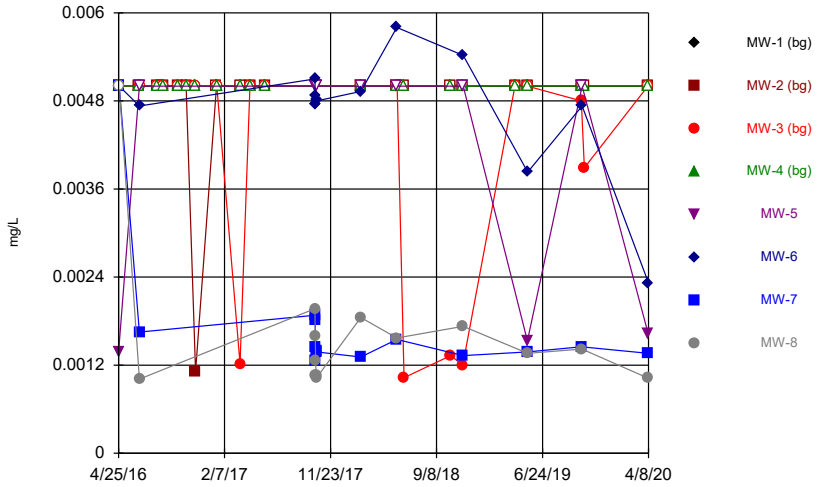
Time Series



Constituent: Antimony Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

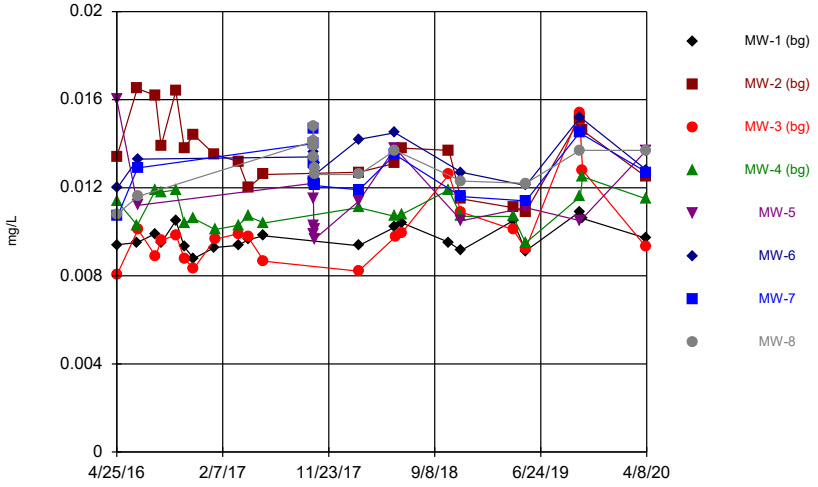
Time Series



Constituent: Arsenic Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

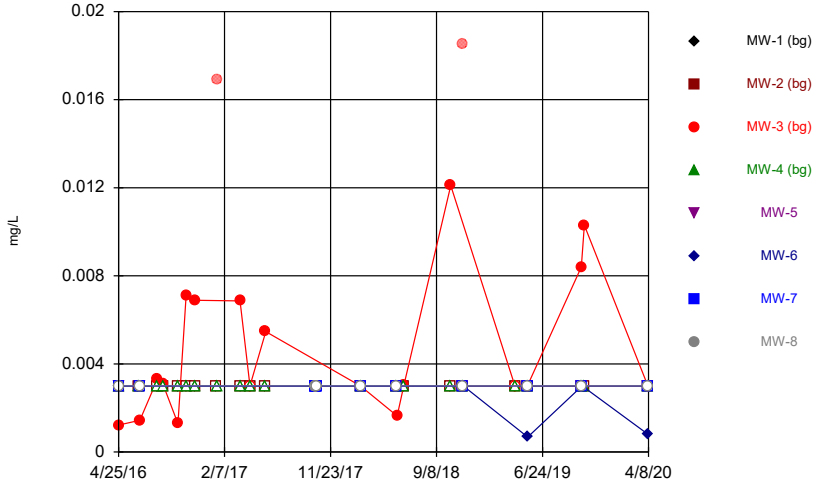
Time Series



Constituent: Barium Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.003	<0.003	<0.003	<0.003			
4/26/2016	<0.003							
4/27/2016						<0.003	<0.003	<0.003
6/20/2016	<0.003	<0.003		<0.003				
6/21/2016					<0.003	<0.003	<0.003	<0.003
6/22/2016			<0.003					
8/8/2016	<0.003	<0.003						
8/9/2016			<0.003	<0.003				
8/24/2016	<0.003	<0.003	<0.003	<0.003				
10/3/2016	<0.003	<0.003		<0.003				
10/4/2016			<0.003					
10/26/2016	<0.003	<0.003	<0.003	<0.003				
11/21/2016	<0.003	<0.003	<0.003	<0.003				
1/17/2017	<0.003	<0.003						
1/18/2017			<0.003	<0.003				
3/22/2017	<0.003	<0.003	<0.003	<0.003				
4/18/2017	<0.003	<0.003	<0.003	<0.003				
5/30/2017	<0.003							
5/31/2017		<0.003	<0.003	<0.003				
10/12/2017					<0.003	<0.003	<0.003	<0.003
10/13/2017					<0.003	<0.003	<0.003	<0.003
10/14/2017					<0.003	<0.003	<0.003	<0.003
10/15/2017					<0.003	<0.003	<0.003	<0.003
10/16/2017					<0.003	<0.003	<0.003	<0.003
10/17/2017					<0.003	<0.003	<0.003	<0.003
2/13/2018	<0.003	<0.003	<0.003	<0.003				
2/14/2018					<0.003	<0.003	<0.003	<0.003
5/22/2018	<0.003	<0.003						
5/23/2018				<0.003	<0.003	<0.003	<0.003	<0.003
5/24/2018			<0.003					
6/12/2018	<0.003	<0.003	<0.003	<0.003				
10/17/2018	<0.003	<0.003	<0.003	<0.003				
11/19/2018	<0.003	<0.003	<0.003	<0.003				
11/20/2018					<0.003	<0.003	<0.003	<0.003
4/10/2019	0.00143 (J)	0.000993 (J)	0.000978 (J)	0.00097 (J)				
5/14/2019	0.00137 (J)	0.000989 (J)	<0.003	<0.003	<0.003			
5/15/2019						<0.003	<0.003	<0.003
10/8/2019	<0.003	<0.003	<0.003				<0.003	
10/9/2019								<0.003
10/10/2019				<0.003	<0.003	<0.003		
10/16/2019	<0.003	<0.003	<0.003	<0.003				
4/6/2020	<0.003	<0.003	<0.003	<0.003				
4/7/2020					<0.003			
4/8/2020						<0.003	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.005	<0.005	<0.005	0.00138 (J)			
4/26/2016	<0.005							
4/27/2016						<0.005	<0.005	<0.005
6/20/2016	<0.005	<0.005		<0.005				
6/21/2016					<0.005	0.00473 (J)	0.00165 (J)	0.00101 (J)
6/22/2016			<0.005					
8/8/2016	<0.005	<0.005						
8/9/2016			<0.005	<0.005				
8/24/2016	<0.005	<0.005	<0.005	<0.005				
10/3/2016	<0.005	<0.005		<0.005				
10/4/2016			<0.005					
10/26/2016	<0.005	<0.005	<0.005	<0.005				
11/21/2016	<0.005	0.00111 (J)	<0.005	<0.005				
1/17/2017	<0.005	<0.005						
1/18/2017			<0.005	<0.005				
3/22/2017	<0.005	<0.005	0.00122 (J)	<0.005				
4/18/2017	<0.005	<0.005	<0.005	<0.005				
5/30/2017	<0.005							
5/31/2017		<0.005	<0.005	<0.005				
10/12/2017					<0.005	0.0051	0.00188 (J)	0.00197 (J)
10/13/2017					<0.005	0.00487 (J)	0.00181 (J)	0.00159 (J)
10/14/2017					<0.005	0.00476 (J)	0.00127 (J)	0.00126 (J)
10/15/2017					<0.005	0.00475 (J)	0.00144 (J)	0.00106 (J)
10/16/2017					<0.005	0.00482 (J)	0.00139 (J)	0.00106 (J)
10/17/2017					<0.005	0.0048 (J)	0.00138 (J)	0.00103 (J)
2/13/2018	<0.005	<0.005	<0.005	<0.005				
2/14/2018					<0.005	0.00493 (J)	0.00131 (J)	0.00185 (J)
5/22/2018	<0.005	<0.005						
5/23/2018				<0.005	<0.005	0.0058	0.00155 (J)	0.00157 (J)
5/24/2018			<0.005					
6/12/2018	<0.005	<0.005	0.00103 (J)	<0.005				
10/17/2018	<0.005	<0.005	0.00133 (J)	<0.005				
11/19/2018	<0.005	<0.005	0.0012 (J)	<0.005				
11/20/2018					<0.005	0.00542	0.00133 (J)	0.00173 (J)
4/10/2019	<0.005	<0.005	<0.005	<0.005				
5/14/2019	<0.005	<0.005	<0.005	<0.005	0.00153 (J)			
5/15/2019						0.00383 (J)	0.00138 (J)	0.00136 (J)
10/8/2019	<0.005	<0.005	0.0048 (J)				0.00145 (J)	
10/9/2019								0.00142 (J)
10/10/2019				<0.005	<0.005	0.00473 (J)		
10/16/2019	<0.005	<0.005	0.00389 (J)	<0.005				
4/6/2020	<0.005	<0.005	<0.005	<0.005				
4/7/2020					0.00163 (J)			
4/8/2020						0.00232 (J)	0.00136 (J)	0.00102 (J)

Time Series

Constituent: Barium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		0.0134	0.00803 (J)	0.0114	0.016			
4/26/2016	0.00941 (J)							
4/27/2016						0.012	0.0107	0.0108
6/20/2016	0.00951 (J)	0.0165		0.0103				
6/21/2016					0.0112	0.0133	0.0129	0.0116
6/22/2016			0.0101					
8/8/2016	0.00991 (J)	0.0162						
8/9/2016			0.00889 (J)	0.0119				
8/24/2016	0.00949 (J)	0.0139	0.00962 (J)	0.0118				
10/3/2016	0.0105	0.0164		0.0119				
10/4/2016			0.00984 (J)					
10/26/2016	0.00931 (J)	0.0138	0.00878 (J)	0.0104				
11/21/2016	0.00879 (J)	0.0144	0.00833 (J)	0.0106				
1/17/2017	0.00929 (J)	0.0135						
1/18/2017			0.00966 (J)	0.0101				
3/22/2017	0.00938 (J)	0.0132	0.00991 (J)	0.0103				
4/18/2017	0.00964 (J)	0.012	0.00976 (J)	0.0107				
5/30/2017	0.00982 (J)							
5/31/2017		0.0126	0.00866 (J)	0.0104				
10/12/2017					0.0122	0.0134	0.014	0.0141
10/13/2017					0.0115	0.0124	0.0147	0.0148
10/14/2017					0.0099 (J)	0.0129	0.0123	0.0134
10/15/2017					0.0103	0.0136	0.0132	0.0139
10/16/2017					0.0101	0.0131	0.0122	0.0129
10/17/2017					0.00968 (J)	0.0126	0.0121	0.0126
2/13/2018	0.00937 (J)	0.0127	0.00821 (J)	0.0111				
2/14/2018					0.0114	0.0142	0.0119	0.0126
5/22/2018	0.0102	0.0131						
5/23/2018				0.0107	0.0138	0.0145	0.0135	0.0137
5/24/2018			0.00977 (J)					
6/12/2018	0.0104	0.0138	0.00997 (J)	0.0108				
10/17/2018	0.00952 (J)	0.0137	0.0126	0.0119				
11/19/2018	0.00915 (J)	0.0115	0.0109	0.0107				
11/20/2018					0.0105	0.0127	0.0116	0.0123
4/10/2019	0.0105	0.0111	0.0101	0.0107				
5/14/2019	0.00913 (J)	0.0109	0.00922 (J)	0.00949 (J)	0.0111			
5/15/2019						0.0121	0.0114	0.0122
10/8/2019	0.0109	0.0151	0.0154				0.0145	
10/9/2019								0.0137
10/10/2019				0.0116	0.0105	0.0152		
10/16/2019	0.0106	0.0146	0.0128	0.0125				
4/6/2020	0.00971 (J)	0.0125	0.00931 (J)	0.0115				
4/7/2020					0.0137			
4/8/2020						0.0128	0.0127	0.0137

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.003	0.00122 (J)	<0.003	<0.003			
4/26/2016	<0.003							
4/27/2016						<0.003	<0.003	<0.003
6/20/2016	<0.003	<0.003		<0.003				
6/21/2016					<0.003	<0.003	<0.003	<0.003
6/22/2016			0.00144 (J)					
8/8/2016	<0.003	<0.003						
8/9/2016			0.00331	<0.003				
8/24/2016	<0.003	<0.003	0.00308	<0.003				
10/3/2016	<0.003	<0.003		<0.003				
10/4/2016			0.00129 (J)					
10/26/2016	<0.003	<0.003	0.0071	<0.003				
11/21/2016	<0.003	<0.003	0.00689	<0.003				
1/17/2017	<0.003	<0.003						
1/18/2017			0.0169 (O)	<0.003				
3/22/2017	<0.003	<0.003	0.00686	<0.003				
4/18/2017	<0.003	<0.003	<0.003	<0.003				
5/30/2017	<0.003							
5/31/2017		<0.003	0.00547	<0.003				
10/12/2017					<0.003	<0.003	<0.003	<0.003
10/13/2017					<0.003	<0.003	<0.003	<0.003
10/14/2017					<0.003	<0.003	<0.003	<0.003
10/15/2017					<0.003	<0.003	<0.003	<0.003
10/16/2017					<0.003	<0.003	<0.003	<0.003
10/17/2017					<0.003	<0.003	<0.003	<0.003
2/13/2018	<0.003	<0.003	<0.003	<0.003				
2/14/2018					<0.003	<0.003	<0.003	<0.003
5/22/2018	<0.003	<0.003						
5/23/2018				<0.003	<0.003	<0.003	<0.003	<0.003
5/24/2018			0.00164 (J)					
6/12/2018	<0.003	<0.003	0.00306	<0.003				
10/17/2018	<0.003	<0.003	0.0121	<0.003				
11/19/2018	<0.003	<0.003	0.0185 (o)	<0.003				
11/20/2018					<0.003	<0.003	<0.003	<0.003
4/10/2019	<0.003	<0.003	<0.003	<0.003				
5/14/2019	<0.003	<0.003	<0.003	<0.003	<0.003			
5/15/2019						0.000677 (J)	<0.003	<0.003
10/8/2019	<0.003	<0.003	0.0084				<0.003	
10/9/2019								<0.003
10/10/2019				<0.003	<0.003	<0.003		
10/16/2019	<0.003	<0.003	0.0103	<0.003				
4/6/2020	<0.003	<0.003	<0.003	<0.003				
4/7/2020					<0.003			
4/8/2020						0.000788 (J)	<0.003	<0.003

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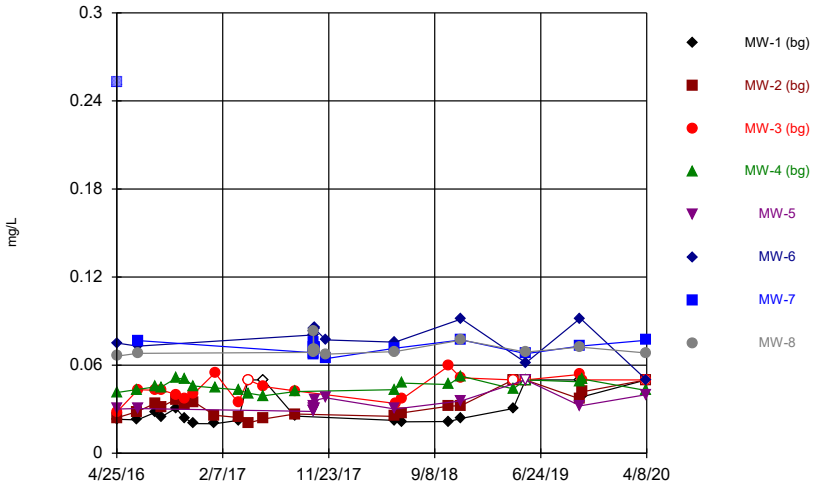
Hollow symbols indicate censored values.

Time Series



Constituent: Boron Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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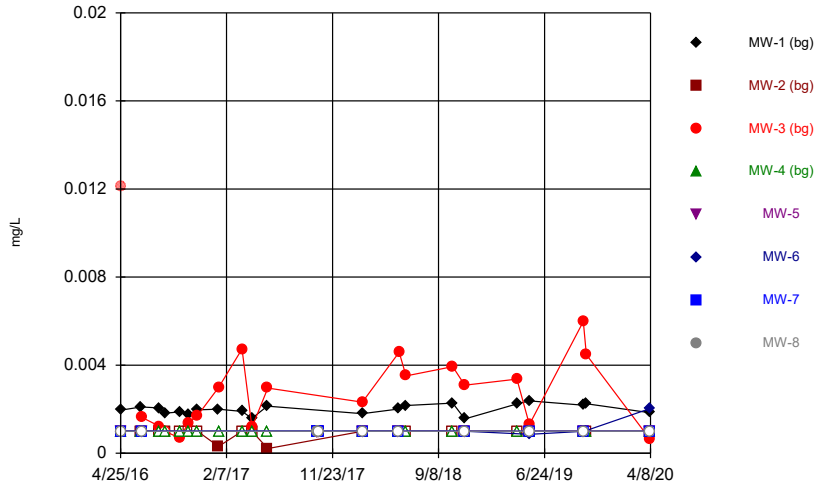
Hollow symbols indicate censored values.

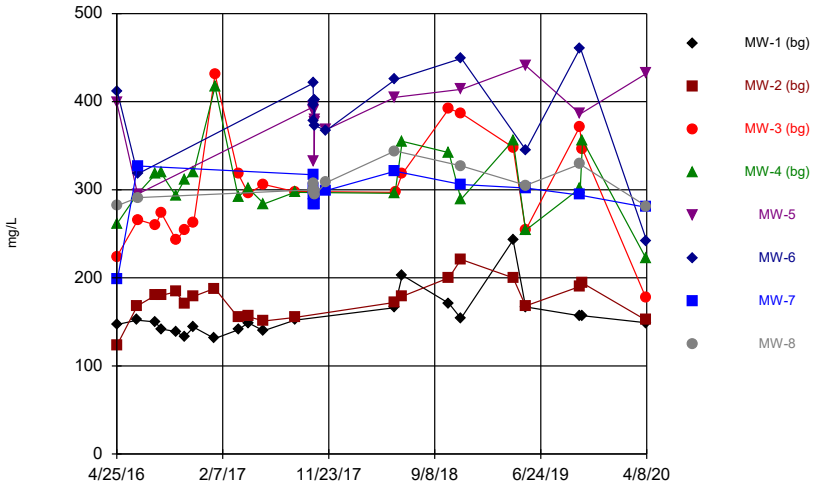
Time Series



Constituent: Cadmium Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

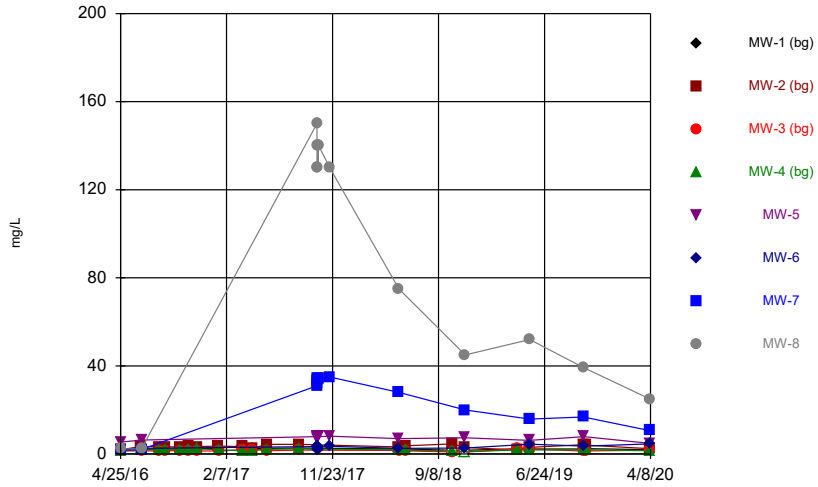
Time Series



Constituent: Calcium Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Chloride Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

Constituent: Boron (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		0.0241 (J)	0.028 (J)	0.0414 (J)	0.0301 (J)			
4/26/2016	0.0231 (J)							
4/27/2016						0.075 (J)	0.253 (o)	0.0662 (J)
6/20/2016	0.0227 (J)	0.0284 (J)		0.0434 (J)				
6/21/2016					0.0304 (J)	0.0729 (J)	0.0768 (J)	0.0681 (J)
6/22/2016			0.0433 (J)					
8/8/2016	0.0278 (J)	0.034 (J)						
8/9/2016			0.0429 (J)	0.0453 (J)				
8/24/2016	0.0247 (J)	0.0316 (J)	0.0431 (J)	0.0451 (J)				
10/3/2016	0.0307 (J)	0.0367 (J)		0.0511 (J)				
10/4/2016			0.04 (J)					
10/26/2016	0.0241 (J)	0.0331 (J)	0.0375 (J)	0.0507 (J)				
11/21/2016	0.0202 (J)	0.035 (J)	0.0406 (J)	0.0458 (J)				
1/17/2017	0.0201 (J)	0.0259 (J)						
1/18/2017			0.0548 (J)	0.0445 (J)				
3/22/2017	0.0224 (J)	0.0243 (J)	0.0344 (J)	0.0432 (J)				
4/18/2017	<0.1	0.0206 (J)	<0.1	0.0409 (J)				
5/30/2017	<0.1							
5/31/2017		0.0234 (J)	0.0454 (J)	0.0392 (J)				
8/23/2017	0.0253 (J)	0.0267 (J)	0.0425 (J)	0.042 (J)				
10/12/2017					0.0285 (J)	0.0806 (J)	0.0685 (J)	0.0687 (J)
10/13/2017					0.0287 (J)	0.0803 (J)	0.0674 (J)	0.0831 (J)
10/14/2017					0.0305 (J)	0.0828 (J)	0.0756 (J)	0.0702 (J)
10/15/2017					0.0319 (J)	0.0852 (J)	0.0719 (J)	0.0702 (J)
10/16/2017					0.0304 (J)	0.0858 (J)	0.0726 (J)	0.0707 (J)
10/17/2017					0.036 (J)	0.0846 (J)	0.0716 (J)	0.0695 (J)
11/16/2017					0.0377 (J)	0.0772 (J)	0.0644 (J)	0.0675 (J)
5/22/2018	0.0224 (J)	0.0251 (J)						
5/23/2018				0.0433 (J)	0.0301 (J)	0.0757 (J)	0.0715 (J)	0.0693 (J)
5/24/2018			0.0339 (J)					
6/12/2018	0.0214 (J)	0.0275 (J)	0.0371 (J)	0.0478 (J)				
10/17/2018	0.0216 (J)	0.0321 (J)	0.0596 (J)	0.0468 (J)				
11/19/2018	0.0237 (J)	0.0324 (J)	0.0514 (J)	0.0526 (J)				
11/20/2018					0.0357 (J)	0.0915 (J)	0.0772 (J)	0.0771 (J)
4/10/2019	0.0304 (J)	<0.1	<0.1	0.0438 (J)				
5/14/2019	<0.1	<0.1	<0.1	<0.1	<0.1			
5/15/2019						0.0616 (J)	0.0678 (J)	0.0689 (J)
10/8/2019	<0.1	0.0371 (J)	0.0537 (J)				0.073 (J)	
10/9/2019								0.0723 (J)
10/10/2019				0.0487 (J)	0.0323 (J)	0.0919 (J)		
10/16/2019	0.0385 (J)	0.0419 (J)	0.05 (J)	0.0505 (J)				
4/6/2020	<0.1	<0.1	<0.1	0.0428 (J)				
4/7/2020					0.0399 (J)			
4/8/2020						0.0499 (J)	0.077 (J)	0.0683 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.001	0.0121 (O)	<0.001	<0.001			
4/26/2016	0.00196							
4/27/2016						<0.001	<0.001	<0.001
6/20/2016	0.0021	<0.001		<0.001				
6/21/2016					<0.001	<0.001	<0.001	<0.001
6/22/2016			0.00163					
8/8/2016	0.00206	<0.001						
8/9/2016			0.00122	<0.001				
8/24/2016	0.00182	<0.001	<0.001	<0.001				
10/3/2016	0.00188	<0.001		<0.001				
10/4/2016			0.000689 (J)					
10/26/2016	0.00175	<0.001	0.00136	<0.001				
11/21/2016	0.00197	<0.001	0.00171	<0.001				
1/17/2017	0.002	0.000311 (J)						
1/18/2017			0.003	<0.001				
3/22/2017	0.0019	<0.001	0.00473	<0.001				
4/18/2017	0.00159	<0.001	0.00117	<0.001				
5/30/2017	0.00214							
5/31/2017		0.000212 (J)	0.00296	<0.001				
10/12/2017					<0.001	<0.001	<0.001	<0.001
10/13/2017					<0.001	<0.001	<0.001	<0.001
10/14/2017					<0.001	<0.001	<0.001	<0.001
10/15/2017					<0.001	<0.001	<0.001	<0.001
10/16/2017					<0.001	<0.001	<0.001	<0.001
10/17/2017					<0.001	<0.001	<0.001	<0.001
2/13/2018	0.0018	<0.001	0.00232	<0.001				
2/14/2018					<0.001	<0.001	<0.001	<0.001
5/22/2018	0.00201	<0.001						
5/23/2018				<0.001	<0.001	<0.001	<0.001	<0.001
5/24/2018			0.00459					
6/12/2018	0.00217	<0.001	0.00351	<0.001				
10/17/2018	0.00228	<0.001	0.00393	<0.001				
11/19/2018	0.00156	<0.001	0.00309	<0.001				
11/20/2018					<0.001	<0.001	<0.001	<0.001
4/10/2019	0.00224	<0.001	0.00337	<0.001				
5/14/2019	0.00238	<0.001	0.0013	<0.001	<0.001			
5/15/2019						0.000858 (J)	<0.001	<0.001
10/8/2019	0.00218	<0.001	0.00598				<0.001	
10/9/2019								<0.001
10/10/2019				<0.001	<0.001	<0.001		
10/16/2019	0.00225	<0.001	0.00448	<0.001				
4/6/2020	0.00184	<0.001	0.000645 (J)	<0.001				
4/7/2020					<0.001			
4/8/2020						0.00204	<0.001	<0.001

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		123	224	261	399			
4/26/2016	147							
4/27/2016						411	198	282
6/20/2016	152	168		295				
6/21/2016					295	318	327	291
6/22/2016			266					
8/8/2016	150	180						
8/9/2016			260	318				
8/24/2016	142	180	274	319				
10/3/2016	139	184		293				
10/4/2016			243					
10/26/2016	133	171	254	311				
11/21/2016	144	179	263	320				
1/17/2017	131	188						
1/18/2017			431	417				
3/22/2017	141	155	318	292				
4/18/2017	149	156	296	302				
5/30/2017	140							
5/31/2017		151	306	284				
8/23/2017	152	155	298	297				
10/12/2017					394	421	317	300
10/13/2017					389	396	302	298
10/14/2017					391	400	283	299
10/15/2017					332	378	294	307
10/16/2017					380	402	284	299
10/17/2017					377	373	294	294
11/16/2017					368	367	299	308
5/22/2018	166	172						
5/23/2018				296	405	425	321	344
5/24/2018			297					
6/12/2018	203	179	318	355				
10/17/2018	171	200	392	342				
11/19/2018	154	221	387	289				
11/20/2018					414	449	306	327
4/10/2019	243	200	348	356				
5/14/2019	167	168	254	254	441			
5/15/2019						345	302	305
10/8/2019	157	190	371				294	
10/9/2019								329
10/10/2019				302	386	461		
10/16/2019	157	194	346	356				
4/6/2020	149	152	177	222				
4/7/2020					432			
4/8/2020						242	280	281

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		1.9	1.32	1.53	5.44			
4/26/2016	1.94							
4/27/2016						2.19	1.71	2.34
6/20/2016	2.09	3.43		1.85				
6/21/2016					6.32	2.56	2.04	2.29
6/22/2016			1.46					
8/8/2016	2.18	3.31						
8/9/2016			1.35	1.95				
8/24/2016	2.22	3.23	1.47	2.07				
10/3/2016	2.34	3.21		2.02				
10/4/2016			1.59					
10/26/2016	2.34	3.35	1.27	2.07				
11/21/2016	2.5	3.34	1.38	2.39				
1/17/2017	2.68	3.58						
1/18/2017			1.34	1.9				
3/22/2017	3.7	3.4	2	1.5 (J)				
4/18/2017	2.4	2.6	2.2	1.6 (J)				
5/30/2017	2.6							
5/31/2017		4.4	1.5 (J)	2.1				
8/23/2017	2.7	4.4	1.8 (J)	2.3				
10/12/2017					7.9	3.4	31	150
10/13/2017					8 (B)	3 (B)	32 (B)	130 (B)
10/14/2017					7.4	2.8	33	140
10/15/2017					7.2	1.9 (J)	34	130
10/16/2017					8.1	1.8 (J)	34	140
10/17/2017					7.9	3.1	34	140
11/16/2017					8.1	3.5	35	130
5/22/2018	2.3	3.2						
5/23/2018				2	7	2.6	28	75
5/24/2018			1.6 (J)					
6/12/2018	2.3	3.7	1.4 (J)	1.7 (J)				
10/17/2018	1.7 (J)	4.6	<2	1.5 (J)				
11/19/2018	1.7 (J)	3	<2	<2				
11/20/2018					7.4	2.7	20	45
4/10/2019	2.36	1.76	2.25	1.88				
5/14/2019	2.28	2.98	2.28	1.82	6.24			
5/15/2019						4.45	15.9	52
10/8/2019	2.31	4.26	1.36				16.8	
10/9/2019								39.2
10/10/2019				1.93	7.88	3.61		
10/16/2019	2.42	4.04	1.4	1.92				
4/6/2020	2.01	2.43	1.72	1.5				
4/7/2020					4.83			
4/8/2020						4.63	10.6	24.9

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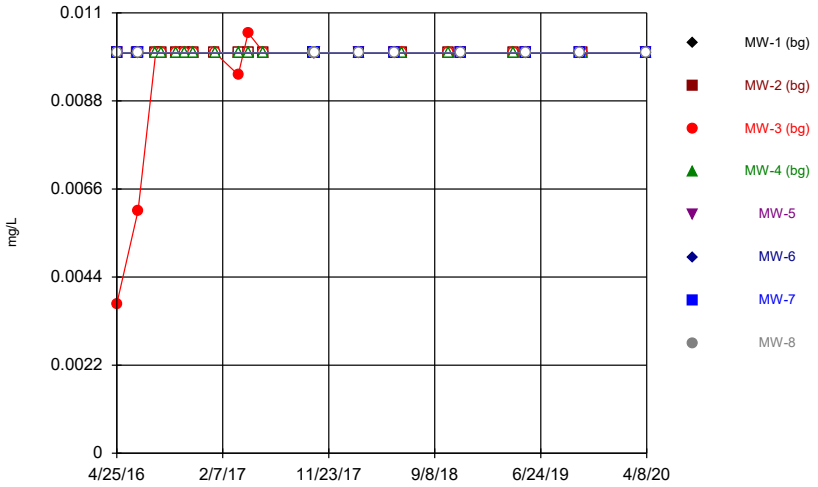
Hollow symbols indicate censored values.

Time Series



Constituent: Chromium Analysis Run 7/22/2020 10:35 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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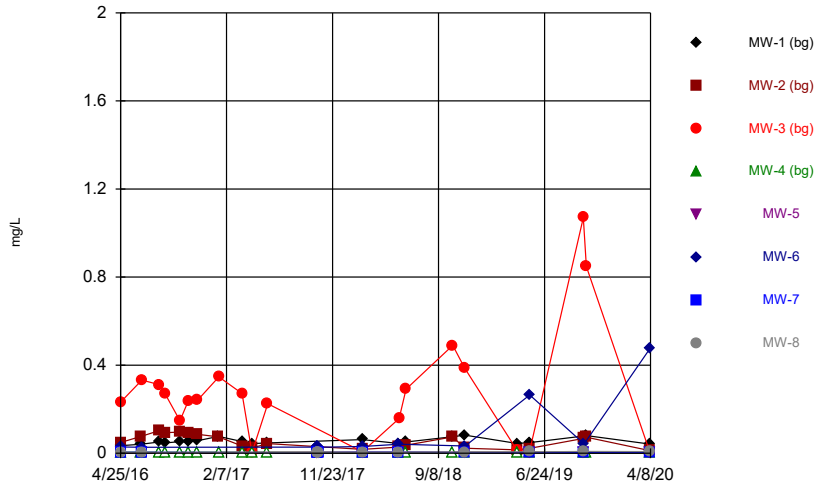
Hollow symbols indicate censored values.

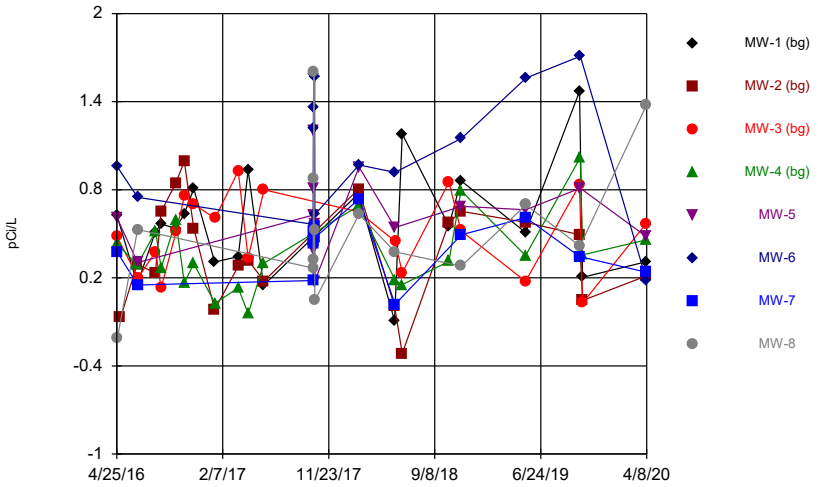
Time Series



Constituent: Cobalt Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

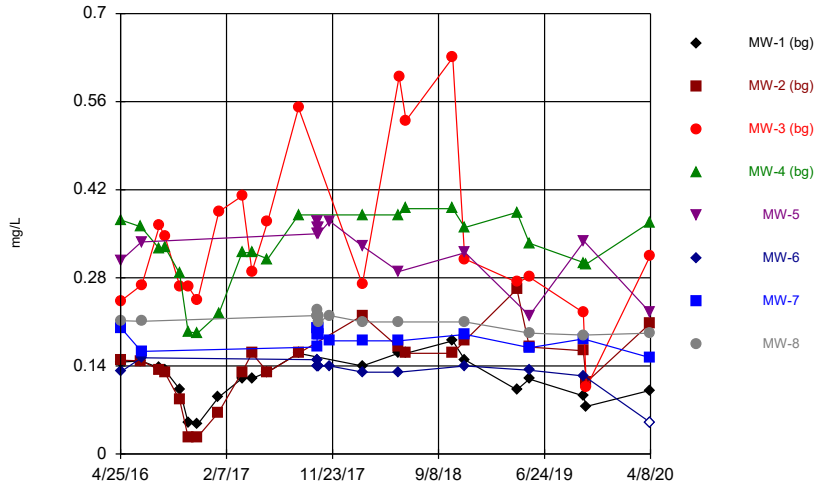
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.01	0.00373 (J)	<0.01	<0.01			
4/26/2016	<0.01							
4/27/2016						<0.01	<0.01	<0.01
6/20/2016	<0.01	<0.01		<0.01				
6/21/2016					<0.01	<0.01	<0.01	<0.01
6/22/2016			0.00606 (J)					
8/8/2016	<0.01	<0.01						
8/9/2016			<0.01	<0.01				
8/24/2016	<0.01	<0.01	<0.01	<0.01				
10/3/2016	<0.01	<0.01		<0.01				
10/4/2016			<0.01					
10/26/2016	<0.01	<0.01	<0.01	<0.01				
11/21/2016	<0.01	<0.01	<0.01	<0.01				
1/17/2017	<0.01	<0.01						
1/18/2017			<0.01	<0.01				
3/22/2017	<0.01	<0.01	0.00945 (J)	<0.01				
4/18/2017	<0.01	<0.01	0.0105	<0.01				
5/30/2017	<0.01							
5/31/2017		<0.01	<0.01	<0.01				
10/12/2017					<0.01	<0.01	<0.01	<0.01
10/13/2017					<0.01	<0.01	<0.01	<0.01
10/14/2017					<0.01	<0.01	<0.01	<0.01
10/15/2017					<0.01	<0.01	<0.01	<0.01
10/16/2017					<0.01	<0.01	<0.01	<0.01
10/17/2017					<0.01	<0.01	<0.01	<0.01
2/13/2018	<0.01	<0.01	<0.01	<0.01				
2/14/2018					<0.01	<0.01	<0.01	<0.01
5/22/2018	<0.01	<0.01						
5/23/2018				<0.01	<0.01	<0.01	<0.01	<0.01
5/24/2018			<0.01					
6/12/2018	<0.01	<0.01	<0.01	<0.01				
10/17/2018	<0.01	<0.01	<0.01	<0.01				
11/19/2018	<0.01	<0.01	<0.01	<0.01				
11/20/2018					<0.01	<0.01	<0.01	<0.01
4/10/2019	<0.01	<0.01	<0.01	<0.01				
5/14/2019	<0.01	<0.01	<0.01	<0.01	<0.01			
5/15/2019						<0.01	<0.01	<0.01
10/8/2019	<0.01	<0.01	<0.01				<0.01	
10/9/2019								<0.01
10/10/2019				<0.01	<0.01	<0.01		
10/16/2019	<0.01	<0.01	<0.01	<0.01				
4/6/2020	<0.01	<0.01	<0.01	<0.01				
4/7/2020					<0.01			
4/8/2020						<0.01	<0.01	<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		0.0487	0.232	<0.005	0.00287 (J)			
4/26/2016	0.0343							
4/27/2016						0.0287	<0.005	0.00436 (J)
6/20/2016	0.0413	0.0767		<0.005				
6/21/2016					0.00228 (J)	0.0269	<0.005	0.00484 (J)
6/22/2016			0.332					
8/8/2016	0.0513	0.103						
8/9/2016			0.311	<0.005				
8/24/2016	0.0471	0.093	0.271	<0.005				
10/3/2016	0.0525	0.0964		<0.005				
10/4/2016			0.148					
10/26/2016	0.0527	0.0904	0.236	<0.005				
11/21/2016	0.0569	0.0857	0.241	<0.005				
1/17/2017	0.0768	0.0745						
1/18/2017			0.347	<0.005				
3/22/2017	0.0535	0.0328	0.271	<0.005				
4/18/2017	0.0442	0.0242	0.00324 (J)	<0.005				
5/30/2017	0.0465							
5/31/2017		0.0441	0.225	<0.005				
10/12/2017					<0.005	0.0279	0.00269 (J)	0.005 (J)
10/13/2017					<0.005	0.0271	0.00341 (J)	0.0052 (J)
10/14/2017					<0.005	0.0296	0.00451 (J)	0.00513 (J)
10/15/2017					0.00203 (J)	0.0303	0.00371 (J)	0.00518 (J)
10/16/2017					<0.005	0.0274	0.00371 (J)	0.00453 (J)
10/17/2017					<0.005	0.0274	0.0035 (J)	0.00463 (J)
2/13/2018	0.062	0.0179	0.00661 (J)	<0.005				
2/14/2018					<0.005	0.0305	<0.005	0.00441 (J)
5/22/2018	0.0443	0.028						
5/23/2018				<0.005	<0.005	0.0409	<0.005	0.00466 (J)
5/24/2018			0.158					
6/12/2018	0.0512	0.0366	0.291	<0.005				
10/17/2018	0.0751	0.0745	0.49	<0.005				
11/19/2018	0.0825	0.0225	0.386	<0.005				
11/20/2018					<0.005	0.0327	0.00306 (J)	0.00551
4/10/2019	0.0445	0.0152	0.0144	<0.005				
5/14/2019	0.0485	0.0222	0.00536	<0.005	<0.005			
5/15/2019						0.265	0.00234 (J)	0.00643
10/8/2019	0.0778	0.0674	1.07				0.00408 (J)	
10/9/2019								0.00864
10/10/2019				<0.005	<0.005	0.0425		
10/16/2019	0.08	0.073	0.848	<0.005				
4/6/2020	0.0417	0.0116	<0.005	<0.005				
4/7/2020					<0.005			
4/8/2020						0.479	0.00394 (J)	0.00762

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/22/2020 10:38 AM View: Time Series

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016			0.484 (U)	0.434 (U)	0.611			
4/26/2016	0.622							
4/27/2016						0.956	0.374 (U)	-0.207 (U)
5/5/2016		-0.0718 (U)						
6/20/2016	0.159 (U)	0.295 (U)		0.287 (U)				
6/21/2016					0.304 (U)	0.748	0.151 (U)	0.529
6/22/2016			0.2 (U)					
8/8/2016	0.511 (U)	0.231 (U)						
8/9/2016			0.378 (U)	0.516 (U)				
8/24/2016	0.566 (U)	0.65	0.131 (U)	0.266 (U)				
10/3/2016	0.537 (U)	0.845		0.59 (U)				
10/4/2016			0.514 (U)					
10/26/2016	0.636	0.994	0.755	0.164 (U)				
11/21/2016	0.807	0.537 (U)	0.7	0.296 (U)				
1/17/2017	0.308 (U)	-0.0159 (U)						
1/18/2017			0.606	0.0267 (U)				
3/22/2017	0.344 (U)	0.279 (U)	0.927	0.132 (U)				
4/18/2017	0.934	0.32 (U)	0.334 (U)	-0.0439 (U)				
5/30/2017	0.149 (U)							
5/31/2017		0.178 (U)	0.8	0.3 (U)				
10/12/2017					0.627 (U)	0.564 (U)	0.182 (U)	0.267 (U)
10/13/2017					0.391 (U)	1.36 (U)	0.517 (U)	0.873 (U)
10/14/2017					1.2 (U)	1.59 (U)	0.43 (U)	1.6 (U)
10/15/2017					0.806 (U)	1.22 (U)	0.45 (U)	0.327 (U)
10/16/2017					0.564 (U)	1.57 (U)	0.55 (U)	0.524 (U)
10/17/2017					0.178 (U)	0.631 (U)	0.474 (U)	0.0455 (U)
2/13/2018	0.774	0.804	0.649	0.69				
2/14/2018					0.955	0.969	0.736	0.633
5/22/2018	-0.091 (U)	0.0077 (U)						
5/23/2018				0.186 (U)	0.543	0.918	0.0192 (U)	0.377 (U)
5/24/2018			0.448 (U)					
6/12/2018	1.18	-0.315 (U)	0.234 (U)	0.153 (U)				
10/17/2018	0.553 (U)	0.574 (U)	0.852	0.313 (U)				
11/19/2018	0.862 (D)	0.654 (D)	0.521 (D)	0.794 (D)				
11/20/2018					0.687	1.15	0.494	0.28 (U)
5/14/2019	0.509	0.579	0.176 (U)	0.352 (U)	0.663			
5/15/2019						1.56	0.61	0.697
10/8/2019	1.47	0.493 (U)	0.833 (U)				0.345 (U)	
10/9/2019								0.416 (U)
10/10/2019				1.02 (U)	0.811 (U)	1.71		
10/16/2019	0.204 (U)	0.046 (U)	0.0279 (U)	0.356 (U)				
4/6/2020	0.309 (U)	0.212 (U)	0.569 (U)	0.459 (U)				
4/7/2020					0.48 (U)			
4/8/2020						0.179 (U)	0.237 (U)	1.38 (U)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		0.149 (J)	0.243 (J)	0.372	0.307			
4/26/2016	0.146 (J)							
4/27/2016						0.131 (J)	0.2 (J)	0.212 (J)
6/20/2016	0.148 (J)	0.148 (J)		0.361				
6/21/2016					0.337	0.153 (J)	0.163 (J)	0.211 (J)
6/22/2016			0.269 (J)					
8/8/2016	0.137 (J)	0.134 (J)						
8/9/2016			0.363	0.326				
8/24/2016	0.133 (J)	0.129 (J)	0.346	0.329				
10/3/2016	0.103 (J)	0.086 (J)		0.287 (J)				
10/4/2016			0.266 (J)					
10/26/2016	0.05 (J)	0.027 (J)	0.266 (J)	0.194 (J)				
11/21/2016	0.047 (J)	0.027 (J)	0.244 (J)	0.192 (J)				
1/17/2017	0.09 (J)	0.066 (J)						
1/18/2017			0.385	0.223 (J)				
3/22/2017	0.12	0.13	0.41	0.32				
4/18/2017	0.12	0.16	0.29	0.32				
5/30/2017	0.13							
5/31/2017		0.13	0.37	0.31				
8/23/2017	0.16	0.16	0.55	0.38				
10/12/2017					0.35	0.15	0.17	0.22
10/13/2017					0.36	0.15	0.19	0.23
10/14/2017					0.37	0.14	0.2	0.22
10/15/2017					0.37	0.14	0.2	0.22
10/16/2017					0.36	0.14	0.2	0.22
10/17/2017					0.35	0.14	0.19	0.21
11/16/2017					0.37	0.14	0.18	0.22
2/13/2018	0.14 (D)	0.22 (D)	0.27 (D)	0.38 (D)				
2/14/2018					0.33 (D)	0.13 (D)	0.18 (D)	0.21 (D)
5/22/2018	0.16	0.17						
5/23/2018				0.38	0.29	0.13	0.18	0.21
5/24/2018			0.6					
6/12/2018	0.16	0.16	0.53	0.39				
10/17/2018	0.18	0.16	0.63	0.39				
11/19/2018	0.15	0.18	0.31	0.36				
11/20/2018					0.32	0.14	0.19	0.21
4/10/2019	0.102	0.262	0.273	0.384				
5/14/2019	0.119	0.17	0.281	0.335	0.22			
5/15/2019						0.133	0.169	0.192
10/8/2019	0.0924 (J)	0.164	0.225				0.183	
10/9/2019								0.189
10/10/2019				0.304	0.338	0.124		
10/16/2019	0.0756 (J)	0.114	0.106	0.302				
4/6/2020	0.101	0.207	0.314	0.368				
4/7/2020					0.225			
4/8/2020						<0.1	0.153	0.192

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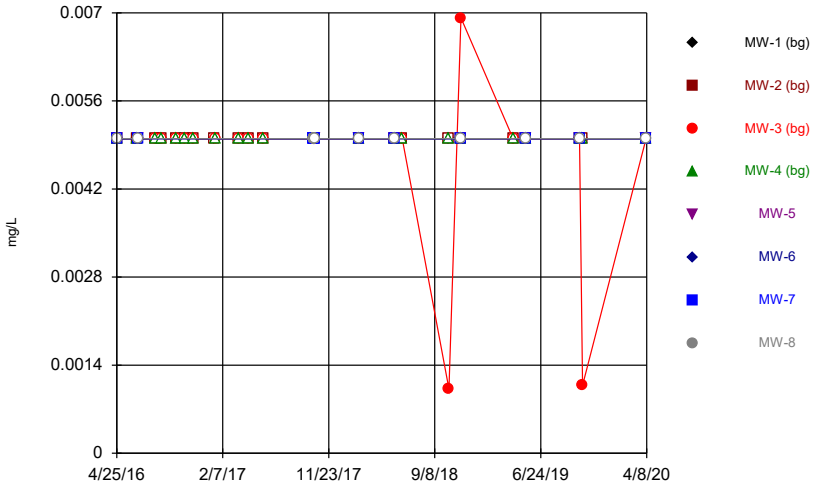
Hollow symbols indicate censored values.

Time Series



Constituent: Lead Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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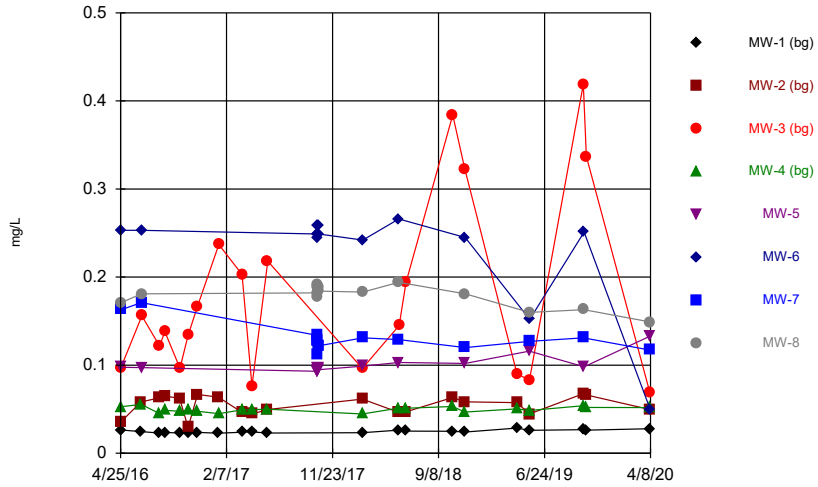
Time Series



Constituent: Lithium Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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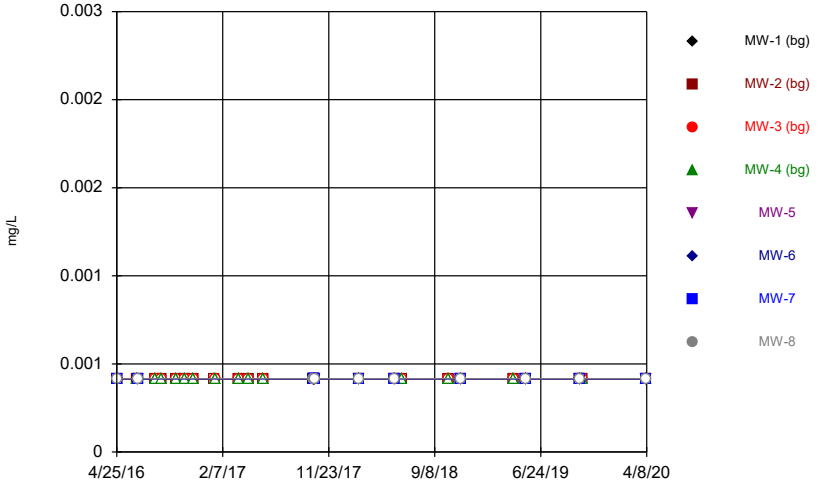
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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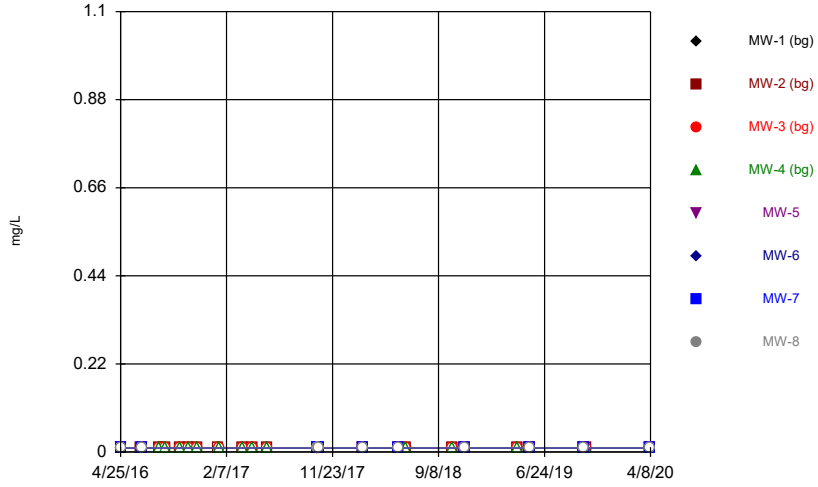
Hollow symbols indicate censored values.

Time Series



Constituent: Molybdenum Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

Constituent: Lead (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.005	<0.005	<0.005	<0.005			
4/26/2016	<0.005							
4/27/2016						<0.005	<0.005	<0.005
6/20/2016	<0.005	<0.005		<0.005				
6/21/2016					<0.005	<0.005	<0.005	<0.005
6/22/2016			<0.005					
8/8/2016	<0.005	<0.005						
8/9/2016			<0.005	<0.005				
8/24/2016	<0.005	<0.005	<0.005	<0.005				
10/3/2016	<0.005	<0.005		<0.005				
10/4/2016			<0.005					
10/26/2016	<0.005	<0.005	<0.005	<0.005				
11/21/2016	<0.005	<0.005	<0.005	<0.005				
1/17/2017	<0.005	<0.005						
1/18/2017			<0.005	<0.005				
3/22/2017	<0.005	<0.005	<0.005	<0.005				
4/18/2017	<0.005	<0.005	<0.005	<0.005				
5/30/2017	<0.005							
5/31/2017		<0.005	<0.005	<0.005				
10/12/2017					<0.005	<0.005	<0.005	<0.005
10/13/2017					<0.005	<0.005	<0.005	<0.005
10/14/2017					<0.005	<0.005	<0.005	<0.005
10/15/2017					<0.005	<0.005	<0.005	<0.005
10/16/2017					<0.005	<0.005	<0.005	<0.005
10/17/2017					<0.005	<0.005	<0.005	<0.005
2/13/2018	<0.005	<0.005	<0.005	<0.005				
2/14/2018					<0.005	<0.005	<0.005	<0.005
5/22/2018	<0.005	<0.005						
5/23/2018				<0.005	<0.005	<0.005	<0.005	<0.005
5/24/2018			<0.005					
6/12/2018	<0.005	<0.005	<0.005	<0.005				
10/17/2018	<0.005	<0.005	0.00102 (J)	<0.005				
11/19/2018	<0.005	<0.005	0.00692	<0.005				
11/20/2018					<0.005	<0.005	<0.005	<0.005
4/10/2019	<0.005	<0.005	<0.005	<0.005				
5/14/2019	<0.005	<0.005	<0.005	<0.005	<0.005			
5/15/2019						<0.005	<0.005	<0.005
10/8/2019	<0.005	<0.005	<0.005				<0.005	
10/9/2019								<0.005
10/10/2019				<0.005	<0.005	<0.005		
10/16/2019	<0.005	<0.005	0.00108 (J)	<0.005				
4/6/2020	<0.005	<0.005	<0.005	<0.005				
4/7/2020					<0.005			
4/8/2020						<0.005	<0.005	<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		0.0353 (J)	0.0964	0.0528	0.0977			
4/26/2016	0.0264 (J)							
4/27/2016						0.253	0.163	0.171
6/20/2016	0.0246 (J)	0.0583		0.0554				
6/21/2016					0.0972	0.253	0.171	0.181
6/22/2016			0.156					
8/8/2016	0.0229 (J)	0.0627						
8/9/2016			0.122	0.0452 (J)				
8/24/2016	0.0236 (J)	0.0651	0.138	0.0488 (J)				
10/3/2016	0.0229 (J)	0.0622		0.0476 (J)				
10/4/2016			0.0966					
10/26/2016	0.0227 (J)	0.0293 (J)	0.134	0.049 (J)				
11/21/2016	0.0236 (J)	0.0667	0.167	0.0477 (J)				
1/17/2017	0.0228 (J)	0.0636						
1/18/2017			0.237	0.045 (J)				
3/22/2017	0.0238 (J)	0.0464 (J)	0.203	0.0493 (J)				
4/18/2017	0.0242 (J)	0.0446 (J)	0.0764	0.0494 (J)				
5/30/2017	0.0229 (J)							
5/31/2017		0.0496 (J)	0.218	0.0501				
10/12/2017					0.093	0.249	0.134	0.182
10/13/2017					0.0935	0.249	0.127	0.189
10/14/2017					0.0931	0.244	0.112	0.177
10/15/2017					0.0968	0.259	0.129	0.191
10/16/2017					0.0963	0.259	0.122	0.189
10/17/2017					0.0949	0.249	0.122	0.184
2/13/2018	0.0233 (J)	0.0615	0.0964	0.0446 (J)				
2/14/2018					0.0989	0.242	0.131	0.183
5/22/2018	0.0263 (J)	0.0465 (J)						
5/23/2018				0.0513	0.103	0.266	0.129	0.194
5/24/2018			0.145					
6/12/2018	0.0251 (J)	0.0472 (J)	0.194	0.0511				
10/17/2018	0.025 (J)	0.0633	0.384	0.0532				
11/19/2018	0.0241	0.0584	0.323	0.0467				
11/20/2018					0.102	0.245	0.12	0.181
4/10/2019	0.0285	0.0574	0.0905	0.0504				
5/14/2019	0.026 (J)	0.0445	0.0828	0.0485	0.116			
5/15/2019						0.152	0.127	0.16
10/8/2019	0.0268	0.0677	0.419				0.131	
10/9/2019								0.163
10/10/2019				0.054	0.0981	0.251		
10/16/2019	0.0263	0.0661	0.337	0.052				
4/6/2020	0.0278	0.0496	0.0689	0.0519				
4/7/2020					0.133			
4/8/2020						0.0489	0.117	0.149

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.0005	<0.0005	<0.0005	<0.0005			
4/26/2016	<0.0005							
4/27/2016						<0.0005	<0.0005	<0.0005
6/20/2016	<0.0005	<0.0005		<0.0005				
6/21/2016					<0.0005	<0.0005	<0.0005	<0.0005
6/22/2016			<0.0005					
8/8/2016	<0.0005	<0.0005						
8/9/2016			<0.0005	<0.0005				
8/24/2016	<0.0005	<0.0005	<0.0005	<0.0005				
10/3/2016	<0.0005	<0.0005		<0.0005				
10/4/2016			<0.0005					
10/26/2016	<0.0005	<0.0005	<0.0005	<0.0005				
11/21/2016	<0.0005	<0.0005	<0.0005	<0.0005				
1/17/2017	<0.0005	<0.0005						
1/18/2017			<0.0005	<0.0005				
3/22/2017	<0.0005	<0.0005	<0.0005	<0.0005				
4/18/2017	<0.0005	<0.0005	<0.0005	<0.0005				
5/30/2017	<0.0005							
5/31/2017		<0.0005	<0.0005	<0.0005				
10/12/2017					<0.0005	<0.0005	<0.0005	<0.0005
10/13/2017					<0.0005	<0.0005	<0.0005	<0.0005
10/14/2017					<0.0005	<0.0005	<0.0005	<0.0005
10/15/2017					<0.0005	<0.0005	<0.0005	<0.0005
10/16/2017					<0.0005	<0.0005	<0.0005	<0.0005
10/17/2017					<0.0005	<0.0005	<0.0005	<0.0005
2/13/2018	<0.0005	<0.0005	<0.0005	<0.0005				
2/14/2018					<0.0005	<0.0005	<0.0005	<0.0005
5/22/2018	<0.0005	<0.0005						
5/23/2018				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
5/24/2018			<0.0005					
6/12/2018	<0.0005	<0.0005	<0.0005	<0.0005				
10/17/2018	<0.0005	<0.0005	<0.0005	<0.0005				
11/19/2018	<0.0005	<0.0005	<0.0005	<0.0005				
11/20/2018					<0.0005	<0.0005	<0.0005	<0.0005
4/10/2019	<0.0005	<0.0005	<0.0005	<0.0005				
5/14/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
5/15/2019						<0.0005	<0.0005	<0.0005
10/8/2019	<0.0005	<0.0005	<0.0005				<0.0005	
10/9/2019								<0.0005
10/10/2019				<0.0005	<0.0005	<0.0005		
10/16/2019	<0.0005	<0.0005	<0.0005	<0.0005				
4/6/2020	<0.0005	<0.0005	<0.0005	<0.0005				
4/7/2020					<0.0005			
4/8/2020						<0.0005	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.01	<0.01	<0.01	<0.01			
4/26/2016	<0.01							
4/27/2016						<0.01	<0.01	<0.01
6/20/2016	<0.01	<0.01		<0.01				
6/21/2016					<0.01	<0.01	<0.01	<0.01
6/22/2016			<0.01					
8/8/2016	<0.01	<0.01						
8/9/2016			<0.01	<0.01				
8/24/2016	<0.01	<0.01	<0.01	<0.01				
10/3/2016	<0.01	<0.01		<0.01				
10/4/2016			<0.01					
10/26/2016	<0.01	<0.01	<0.01	<0.01				
11/21/2016	<0.01	<0.01	<0.01	<0.01				
1/17/2017	<0.01	<0.01						
1/18/2017			<0.01	<0.01				
3/22/2017	<0.01	<0.01	<0.01	<0.01				
4/18/2017	<0.01	<0.01	<0.01	<0.01				
5/30/2017	<0.01							
5/31/2017		<0.01	<0.01	<0.01				
10/12/2017					<0.01	<0.01	<0.01	<0.01
10/13/2017					<0.01	<0.01	<0.01	<0.01
10/14/2017					<0.01	<0.01	<0.01	<0.01
10/15/2017					<0.01	<0.01	<0.01	<0.01
10/16/2017					<0.01	<0.01	<0.01	<0.01
10/17/2017					<0.01	<0.01	<0.01	<0.01
2/13/2018	<0.01	<0.01	<0.01	<0.01				
2/14/2018					<0.01	<0.01	<0.01	<0.01
5/22/2018	<0.01	<0.01						
5/23/2018				<0.01	<0.01	<0.01	<0.01	<0.01
5/24/2018			<0.01					
6/12/2018	<0.01	<0.01	<0.01	<0.01				
10/17/2018	<0.01	<0.01	<0.01	<0.01				
11/19/2018	<0.01	<0.01	<0.01	<0.01				
11/20/2018					<0.01	<0.01	<0.01	<0.01
4/10/2019	<0.01	<0.01	<0.01	<0.01				
5/14/2019	<0.01	<0.01	<0.01	<0.01	<0.01			
5/15/2019						<0.01	<0.01	<0.01
10/8/2019	<0.01	<0.01	<0.01				<0.01	
10/9/2019								<0.01
10/10/2019				<0.01	<0.01	<0.01		
10/16/2019	<0.01	<0.01	<0.01	<0.01				
4/6/2020	<0.01	<0.01	<0.01	<0.01				
4/7/2020					<0.01			
4/8/2020						<0.01	<0.01	<0.01

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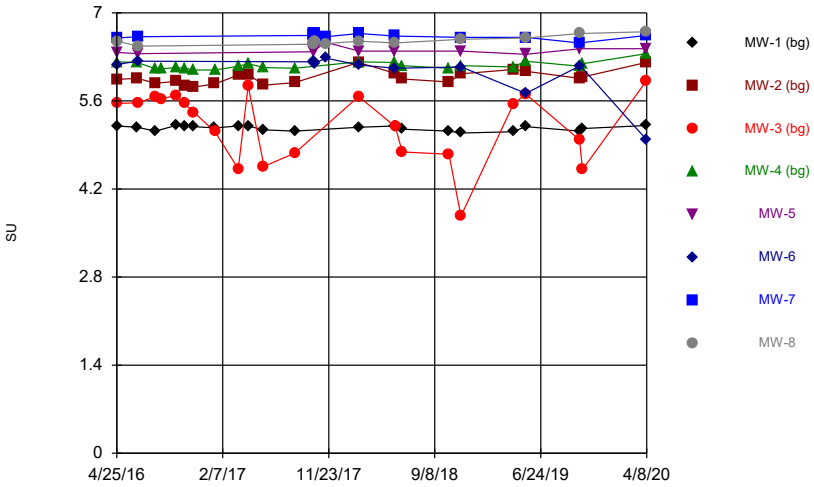
Time Series



Constituent: pH Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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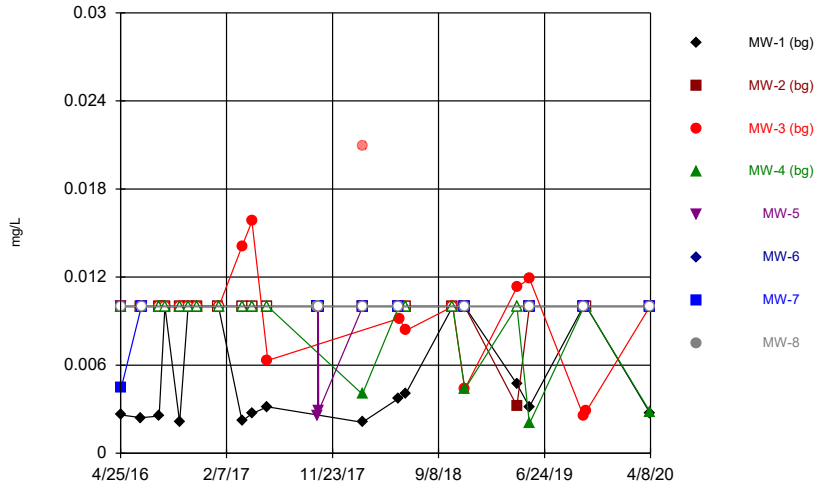
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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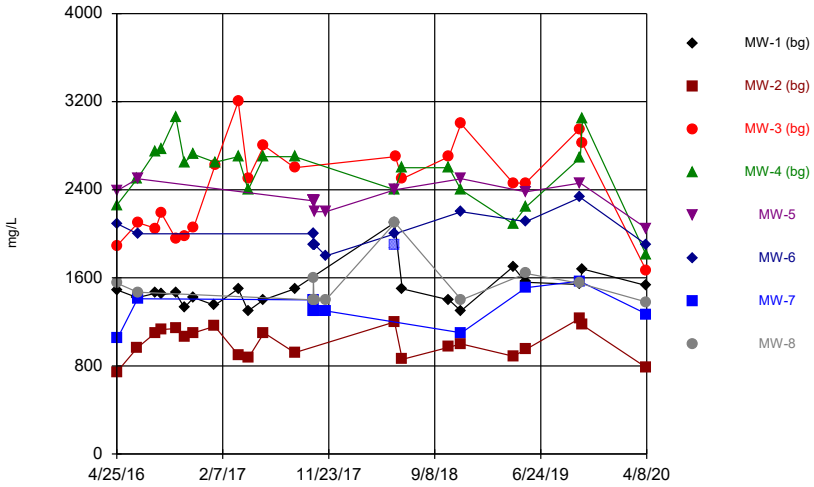
Time Series



Constituent: Sulfate Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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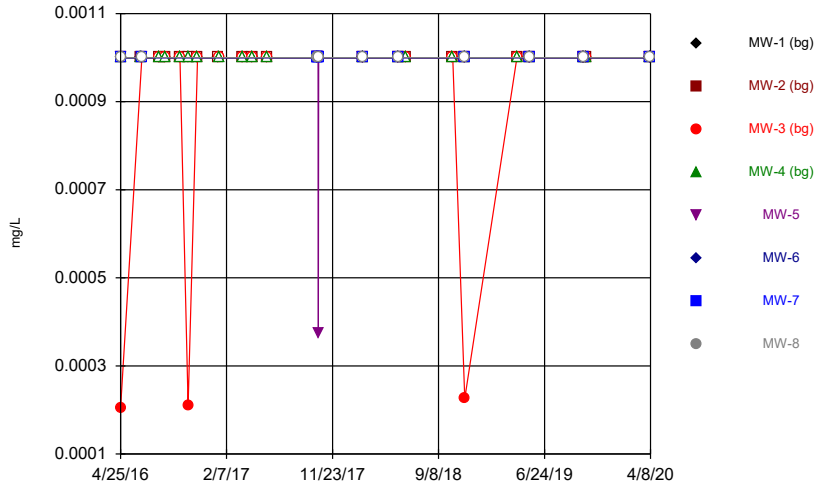
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 7/22/2020 10:36 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

Constituent: pH (SU) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		5.94	5.56	6.22	6.37			
4/26/2016	5.2							
4/27/2016						6.18	6.6	6.55
6/20/2016	5.18	5.96		6.21				
6/21/2016					6.35	6.23	6.62	6.47
6/22/2016			5.57					
8/8/2016	5.12	5.88						
8/9/2016			5.67	6.11				
8/24/2016			5.63	6.11				
10/3/2016	5.21 (D)	5.91 (D)		6.13 (D)				
10/4/2016			5.69 (D)					
10/26/2016	5.2	5.84	5.56	6.12				
11/21/2016	5.19 (D)	5.82 (D)	5.42 (D)	6.09 (D)				
1/17/2017	5.17 (D)	5.87 (D)						
1/18/2017			5.11 (D)	6.09 (D)				
3/22/2017	5.2 (D)	6.01 (D)	4.52 (D)	6.15 (D)				
4/18/2017	5.2	6.02	5.84	6.19				
5/30/2017	5.14 (D)							
5/31/2017		5.85 (D)	4.56 (D)	6.13 (D)				
8/23/2017	5.12 (D)	5.89 (D)	4.77 (D)	6.12 (D)				
10/12/2017					6.38	6.22	6.64	6.5
10/13/2017					6.43	6.23	6.64	6.51
10/14/2017					6.41	6.22	6.66	6.53
10/15/2017					6.42	6.22	6.67	6.53
10/16/2017					6.42	6.21	6.67	6.54
10/17/2017					6.41	6.2	6.66	6.54
11/16/2017					6.53	6.28	6.62	6.51
2/13/2018	5.18	6.21	5.67	6.22				
2/14/2018					6.39	6.17	6.67	6.55
5/22/2018	5.2	6.04						
5/23/2018				6.21	6.39	6.12	6.63	6.52
5/24/2018			5.19					
6/12/2018	5.15	5.95	4.79	6.16				
10/17/2018	5.12	5.9	4.75	6.12				
11/19/2018	5.09	6.03	3.77 (E)	6.16				
11/20/2018					6.39	6.14	6.61	6.58
4/10/2019	5.11	6.1	5.54	6.14				
5/14/2019	5.19	6.07	5.71	6.23	6.34			
5/15/2019						5.72	6.61	6.6
10/8/2019	5.12	5.96	4.98				6.52	
10/9/2019								6.67
10/10/2019				6.15	6.43	6.16		
10/16/2019	5.16	5.98	4.51	6.19				
4/6/2020	5.21	6.21	5.91	6.35				
4/7/2020					6.43			
4/8/2020						4.98	6.64	6.7

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.01	<0.01	<0.01	<0.01			
4/26/2016	0.00261 (J)							
4/27/2016						<0.01	0.00445 (J)	<0.01
6/20/2016	0.00242 (J)	<0.01		<0.01				
6/21/2016					<0.01	<0.01	<0.01	<0.01
6/22/2016			<0.01					
8/8/2016	0.00253 (J)	<0.01						
8/9/2016			<0.01	<0.01				
8/24/2016	<0.01	<0.01	<0.01	<0.01				
10/3/2016	0.00211 (J)	<0.01		<0.01				
10/4/2016			<0.01					
10/26/2016	<0.01	<0.01	<0.01	<0.01				
11/21/2016	<0.01	<0.01	<0.01	<0.01				
1/17/2017	<0.01	<0.01						
1/18/2017			<0.01	<0.01				
3/22/2017	0.0022 (J)	<0.01	0.0141	<0.01				
4/18/2017	0.0027 (J)	<0.01	0.0158	<0.01				
5/30/2017	0.00316 (J)							
5/31/2017		<0.01	0.00632 (J)	<0.01				
10/12/2017					<0.01	<0.01	<0.01	<0.01
10/13/2017					<0.01	<0.01	<0.01	<0.01
10/14/2017					<0.01	<0.01	<0.01	<0.01
10/15/2017					0.00254 (J)	<0.01	<0.01	<0.01
10/16/2017					<0.01	<0.01	<0.01	<0.01
10/17/2017					0.00288 (J)	<0.01	<0.01	<0.01
2/13/2018	0.00211 (J)	<0.01	0.0209 (O)	0.00403 (J)				
2/14/2018					<0.01	<0.01	<0.01	<0.01
5/22/2018	0.00372 (J)	<0.01						
5/23/2018				<0.01	<0.01	<0.01	<0.01	<0.01
5/24/2018			0.00918 (J)					
6/12/2018	0.00409 (J)	<0.01	0.00836 (J)	<0.01				
10/17/2018	<0.01	<0.01	<0.01	<0.01				
11/19/2018	<0.01	<0.01	0.00439 (J)	0.00436 (J)				
11/20/2018					<0.01	<0.01	<0.01	<0.01
4/10/2019	0.00471 (J)	0.00322 (J)	0.0113	<0.01				
5/14/2019	0.00316 (J)	<0.01	0.0119	0.00201 (J)	<0.01			
5/15/2019						<0.01	<0.01	<0.01
10/8/2019	<0.01	<0.01	0.00256 (J)				<0.01	
10/9/2019								<0.01
10/10/2019				<0.01	<0.01	<0.01		
10/16/2019	<0.01	<0.01	0.00286 (J)	<0.01				
4/6/2020	0.00275 (J)	<0.01	0.01	0.00284 (J)				
4/7/2020					<0.01			
4/8/2020						<0.01	<0.01	<0.01

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		745	1890	2260	2390			
4/26/2016	1490							
4/27/2016						2090	1050	1550
6/20/2016	1420	964		2500				
6/21/2016					2500	2000	1410	1470
6/22/2016			2100					
8/8/2016	1460	1100						
8/9/2016			2050	2750				
8/24/2016	1450	1130	2190	2770				
10/3/2016	1460	1140		3060				
10/4/2016			1950					
10/26/2016	1330	1060	1980	2650				
11/21/2016	1420	1100	2060	2720				
1/17/2017	1350	1160						
1/18/2017			2620	2650				
3/22/2017	1500	900	3200	2700				
4/18/2017	1300	870	2500	2400				
5/30/2017	1400							
5/31/2017		1100	2800	2700				
8/23/2017	1500	920	2600	2700				
10/12/2017					2300	2000	1400	1400
10/13/2017					2300	2000	1400	1600
10/14/2017					2300	1900	1300	1400
10/15/2017					2300	1900	1300	1400
10/16/2017					2300	1900	1300	1400
10/17/2017					2200	1900	1300	1400
11/16/2017					2200	1800	1300	1400
5/22/2018	2100	1200						
5/23/2018				2400	2400	2000	1900 (o)	2100
5/24/2018			2700					
6/12/2018	1500	860	2500	2600				
10/17/2018	1400	970	2700	2600				
11/19/2018	1300	1000	3000	2400				
11/20/2018					2500	2200	1100	1400
4/10/2019	1700	889	2460	2090				
5/14/2019	1560	948	2460	2240	2380			
5/15/2019						2110	1510	1640
10/8/2019	1540	1230	2950				1570	
10/9/2019								1550
10/10/2019				2690	2460	2330		
10/16/2019	1680	1170	2820	3050				
4/6/2020	1530	786	1670	1810				
4/7/2020					2050			
4/8/2020						1900	1270	1380

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		<0.001	0.000205 (J)	<0.001	<0.001			
4/26/2016	<0.001							
4/27/2016						<0.001	<0.001	<0.001
6/20/2016	<0.001	<0.001		<0.001				
6/21/2016					<0.001	<0.001	<0.001	<0.001
6/22/2016			<0.001					
8/8/2016	<0.001	<0.001						
8/9/2016			<0.001	<0.001				
8/24/2016	<0.001	<0.001	<0.001	<0.001				
10/3/2016	<0.001	<0.001		<0.001				
10/4/2016			<0.001					
10/26/2016	<0.001	<0.001	0.000209 (J)	<0.001				
11/21/2016	<0.001	<0.001	<0.001	<0.001				
1/17/2017	<0.001	<0.001						
1/18/2017			<0.001	<0.001				
3/22/2017	<0.001	<0.001	<0.001	<0.001				
4/18/2017	<0.001	<0.001	<0.001	<0.001				
5/30/2017	<0.001							
5/31/2017		<0.001	<0.001	<0.001				
10/12/2017					<0.001	<0.001	<0.001	<0.001
10/13/2017					<0.001	<0.001	<0.001	<0.001
10/14/2017					<0.001	<0.001	<0.001	<0.001
10/15/2017					<0.001	<0.001	<0.001	<0.001
10/16/2017					0.000375 (J)	<0.001	<0.001	<0.001
10/17/2017					<0.001	<0.001	<0.001	<0.001
2/13/2018	<0.001	<0.001	<0.001	<0.001				
2/14/2018					<0.001	<0.001	<0.001	<0.001
5/22/2018	<0.001	<0.001						
5/23/2018				<0.001	<0.001	<0.001	<0.001	<0.001
5/24/2018			<0.001					
6/12/2018	<0.001	<0.001	<0.001	<0.001				
10/17/2018	<0.001	<0.001	<0.001	<0.001				
11/19/2018	<0.001	<0.001	0.000226 (J)	<0.001				
11/20/2018					<0.001	<0.001	<0.001	<0.001
4/10/2019	<0.001	<0.001	<0.001	<0.001				
5/14/2019	<0.001	<0.001	<0.001	<0.001	<0.001			
5/15/2019						<0.001	<0.001	<0.001
10/8/2019	<0.001	<0.001	<0.001				<0.001	
10/9/2019								<0.001
10/10/2019				<0.001	<0.001	<0.001		
10/16/2019	<0.001	<0.001	<0.001	<0.001				
4/6/2020	<0.001	<0.001	<0.001	<0.001				
4/7/2020					<0.001			
4/8/2020						<0.001	<0.001	<0.001

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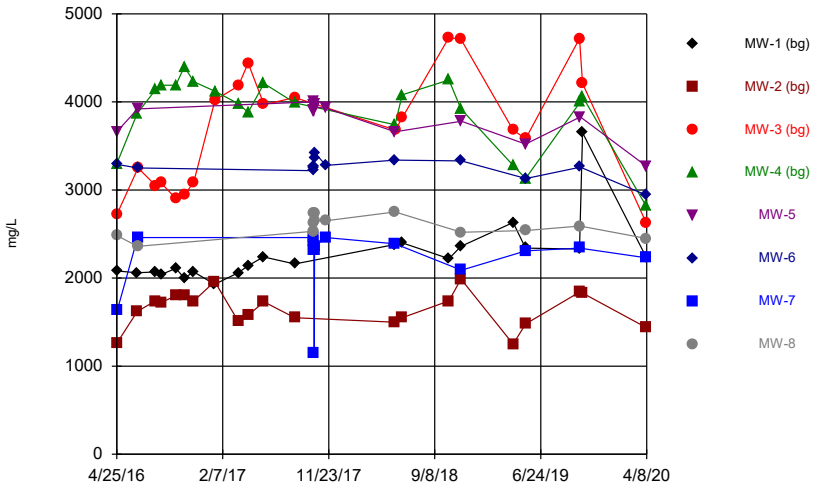
Time Series



Constituent: Total Dissolved Solids Analysis Run 7/22/2020 10:36 AM View: Time Series

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/22/2020 10:38 AM View: Time Series

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-5	MW-6	MW-7	MW-8
4/25/2016		1260 (D)	2720 (D)	3300 (D)	3660			
4/26/2016	2080 (D)							
4/27/2016						3290	1640	2480
6/20/2016	2060 (D)	1620 (D)		3870 (D)				
6/21/2016					3920	3250	2460	2360
6/22/2016			3250 (D)					
8/8/2016	2070 (D)	1740 (D)						
8/9/2016			3050 (D)	4140 (D)				
8/24/2016	2040	1720	3080	4190				
10/3/2016	2110 (D)	1800 (D)		4190 (D)				
10/4/2016			2900 (D)					
10/26/2016	2000	1800	2940	4400				
11/21/2016	2070 (D)	1740 (D)	3090 (D)	4230 (D)				
1/17/2017	1930 (D)	1960 (D)						
1/18/2017			4020 (D)	4120 (D)				
3/22/2017	2060 (D)	1510 (D)	4180 (D)	3980 (D)				
4/18/2017	2140	1580	4440	3880				
5/30/2017	2240 (D)							
5/31/2017		1730 (D)	3970 (D)	4210 (D)				
8/23/2017	2160 (D)	1550 (D)	4050 (D)	3990 (D)				
10/12/2017					4000	3220	2460	2530
10/13/2017					3960	3250	2420	2740
10/14/2017					3910	3260	2320	2630
10/15/2017					3890	3260	1150	2530
10/16/2017					3980	3360	2320	2740
10/17/2017					3940	3420	2360	2650
11/16/2017					3930	3280	2460	2650
5/22/2018	2380 (D)	1500 (D)						
5/23/2018				3740 (D)	3660	3340	2390	2750
5/24/2018			3680 (D)					
6/12/2018	2400	1550	3820	4080				
10/17/2018	2220	1740	4730	4250				
11/19/2018	2360	1990	4710	3920				
11/20/2018					3780	3330	2090	2520
4/10/2019	2630	1250	3680	3280				
5/14/2019	2340 (D)	1480	3580 (D)	3130 (D)	3520			
5/15/2019						3130	2310	2540
10/8/2019	2330	1840	4720				2340	
10/9/2019								2590
10/10/2019				4000	3830	3260		
10/16/2019	3650	1830	4210	4060				
4/6/2020	2240	1440	2630	2820				
4/7/2020					3270			
4/8/2020						2940	2230	2450

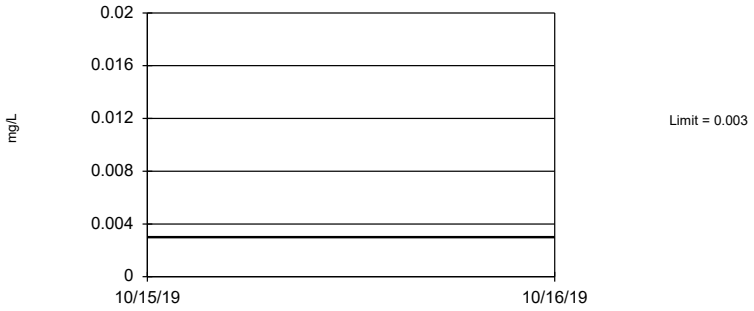
Upper Tolerance Limits - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:42 AM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	80	n/a	n/a	92.5	n/a	n/a	0.01652	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	80	n/a	n/a	91.25	n/a	n/a	0.01652	NP Inter(NDs)
Barium (mg/L)	0.01527	n/a	80	-4.517	0.1705	0	None	ln(x)	0.05	Inter
Beryllium (mg/L)	0.0121	n/a	78	n/a	n/a	82.05	n/a	n/a	0.0183	NP Inter(NDs)
Cadmium (mg/L)	0.00598	n/a	79	n/a	n/a	49.37	n/a	n/a	0.01738	NP Inter(normal...
Chromium (mg/L)	0.0105	n/a	80	n/a	n/a	95	n/a	n/a	0.01652	NP Inter(NDs)
Cobalt (mg/L)	1.07	n/a	80	n/a	n/a	25	n/a	n/a	0.01652	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	1.098	n/a	76	0.4542	0.3266	0	None	No	0.05	Inter
Fluoride (mg/L)	0.5302	n/a	84	0.4636	0.1353	0	None	sqrt(x)	0.05	Inter
Lead (mg/L)	0.00692	n/a	80	n/a	n/a	96.25	n/a	n/a	0.01652	NP Inter(NDs)
Lithium (mg/L)	0.419	n/a	80	n/a	n/a	0	n/a	n/a	0.01652	NP Inter(normal...
Mercury (mg/L)	0.0005	n/a	80	n/a	n/a	100	n/a	n/a	0.01652	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	80	n/a	n/a	100	n/a	n/a	0.01652	NP Inter(NDs)
Selenium (mg/L)	0.0158	n/a	79	n/a	n/a	67.09	n/a	n/a	0.01738	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	80	n/a	n/a	96.25	n/a	n/a	0.01652	NP Inter(NDs)

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 92.5% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Antimony Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

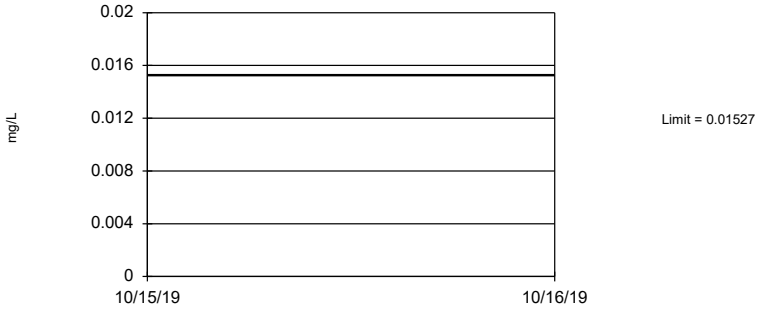
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 91.25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Arsenic Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Parametric



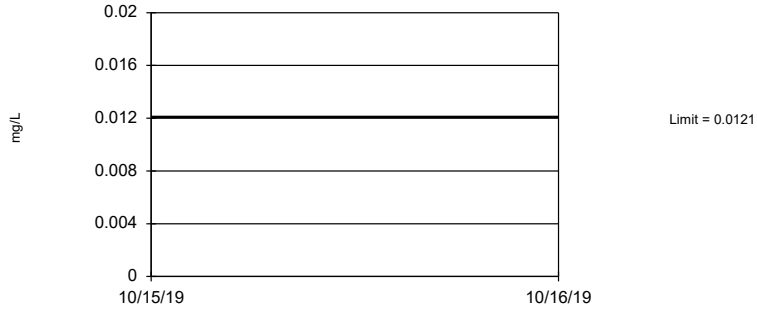
95% coverage. Background Data Summary (based on natural log transformation): Mean=-4.517, Std. Dev.=0.1705, n=80. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9594, critical = 0.957. Report alpha = 0.05.

Constituent: Barium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 78 background values. 82.05% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0183.

Constituent: Beryllium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 79 background values. 49.37% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01738.

Constituent: Cadmium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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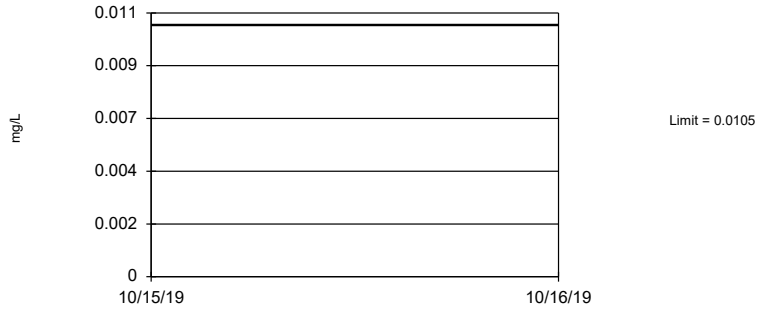
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 95% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Chromium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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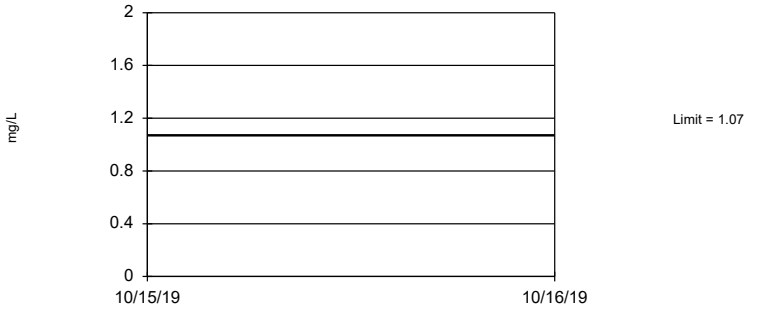
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

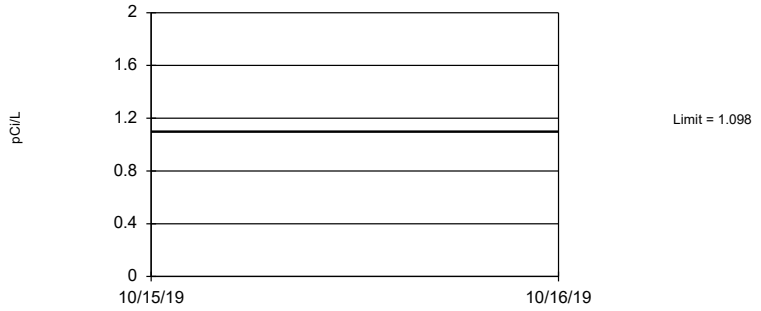
Constituent: Cobalt Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Parametric



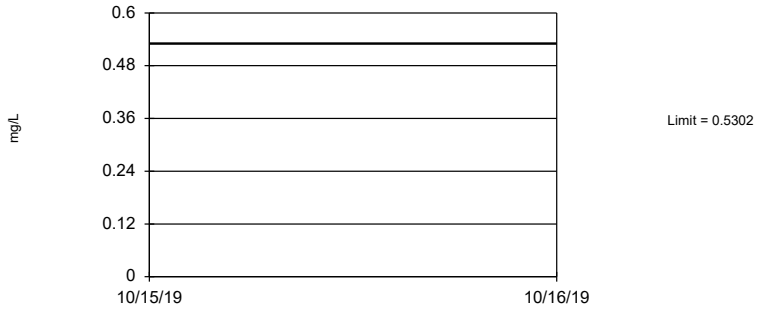
95% coverage. Background Data Summary: Mean=0.4542, Std. Dev.=0.3266, n=76. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9823, critical = 0.957. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Parametric



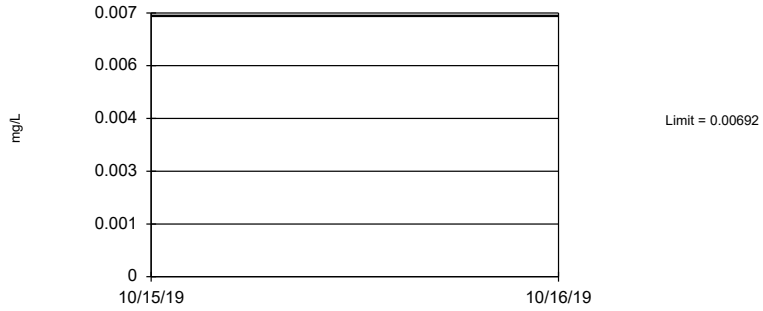
95% coverage. Background Data Summary (based on square root transformation): Mean=0.4636, Std. Dev.=0.1353, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9797, critical = 0.96. Report alpha = 0.05.

Constituent: Fluoride Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



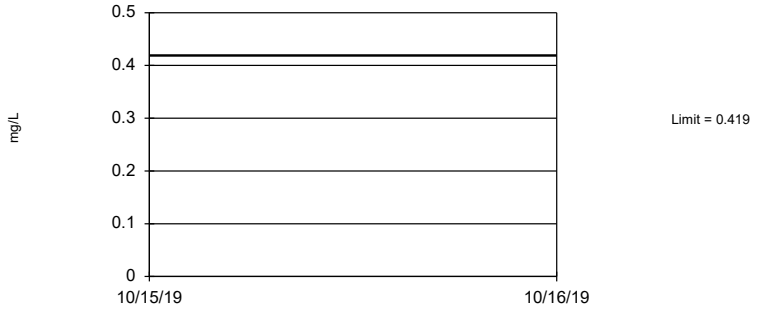
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 96.25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Lead Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



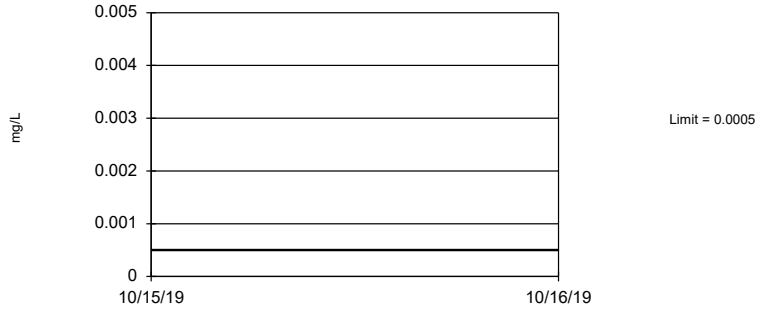
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Lithium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Mercury Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Molybdenum Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

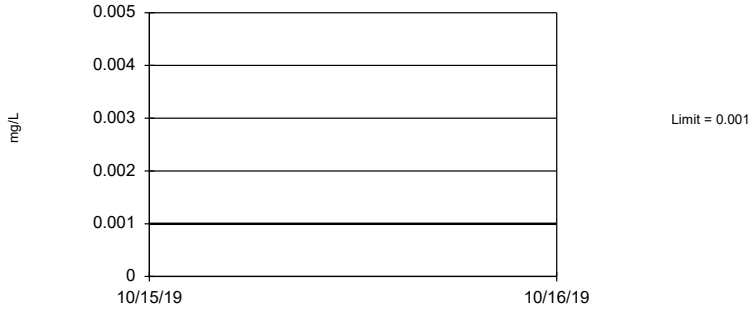
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 79 background values. 67.09% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01738.

Constituent: Selenium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 96.25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Thallium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Confidence Intervals - All Results (No Significant Results)

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-5	0.003	0.003	0.006	No	14	100	No	0.01	NP (NDs)
Antimony (mg/L)	MW-6	0.003	0.003	0.006	No	14	100	No	0.01	NP (NDs)
Antimony (mg/L)	MW-7	0.003	0.003	0.006	No	14	100	No	0.01	NP (NDs)
Antimony (mg/L)	MW-8	0.003	0.003	0.006	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-5	0.005	0.00163	0.01	No	14	78.57	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-6	0.005212	0.004345	0.01	No	14	7.143	x^3	0.01	Param.
Arsenic (mg/L)	MW-7	0.00181	0.00133	0.01	No	14	7.143	No	0.01	NP (normality)
Arsenic (mg/L)	MW-8	0.00185	0.00103	0.01	No	14	7.143	No	0.01	NP (normality)
Barium (mg/L)	MW-5	0.01276	0.01031	2	No	14	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-6	0.01385	0.01255	2	No	14	0	No	0.01	Param.
Barium (mg/L)	MW-7	0.01353	0.01186	2	No	14	0	No	0.01	Param.
Barium (mg/L)	MW-8	0.01379	0.01226	2	No	14	0	No	0.01	Param.
Beryllium (mg/L)	MW-5	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-6	0.003	0.000788	0.004	No	14	85.71	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-7	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-8	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-5	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-6	0.00204	0.000858	0.005	No	14	85.71	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-7	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-8	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-5	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-6	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-7	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-8	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-5	0.005	0.00287	1.07	No	14	78.57	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-6	0.0425	0.0271	1.07	No	14	0	No	0.01	NP (normality)
Cobalt (mg/L)	MW-7	0.004947	0.003291	1.07	No	14	28.57	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.00643	0.00453	1.07	No	14	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-5	0.8165	0.4435	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-6	1.402	0.7591	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-7	0.5361	0.2595	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-8	0.8934	0.2125	5	No	14	0	No	0.01	Param.
Fluoride (mg/L)	MW-5	0.3575	0.3033	4	No	15	0	x^3	0.01	Param.
Fluoride (mg/L)	MW-6	0.1449	0.1275	4	No	15	6.667	x^4	0.01	Param.
Fluoride (mg/L)	MW-7	0.1931	0.1733	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	MW-8	0.2191	0.2033	4	No	15	0	x^2	0.01	Param.
Lead (mg/L)	MW-5	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	MW-6	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	MW-7	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	MW-8	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	MW-5	0.103	0.0935	0.419	No	14	0	No	0.01	NP (normality)
Lithium (mg/L)	MW-6	0.259	0.242	0.419	No	14	0	No	0.01	NP (normality)
Lithium (mg/L)	MW-7	0.134	0.12	0.419	No	14	0	No	0.01	NP (normality)
Lithium (mg/L)	MW-8	0.1874	0.1689	0.419	No	14	0	No	0.01	Param.
Mercury (mg/L)	MW-5	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-6	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-7	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-8	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-5	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-6	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-7	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-8	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-5	0.01	0.00288	0.05	No	14	85.71	No	0.01	NP (NDs)
Selenium (mg/L)	MW-6	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-7	0.01	0.00445	0.05	No	14	92.86	No	0.01	NP (NDs)
Selenium (mg/L)	MW-8	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-5	0.001	0.000375	0.002	No	14	92.86	No	0.01	NP (NDs)
Thallium (mg/L)	MW-6	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-7	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-8	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)

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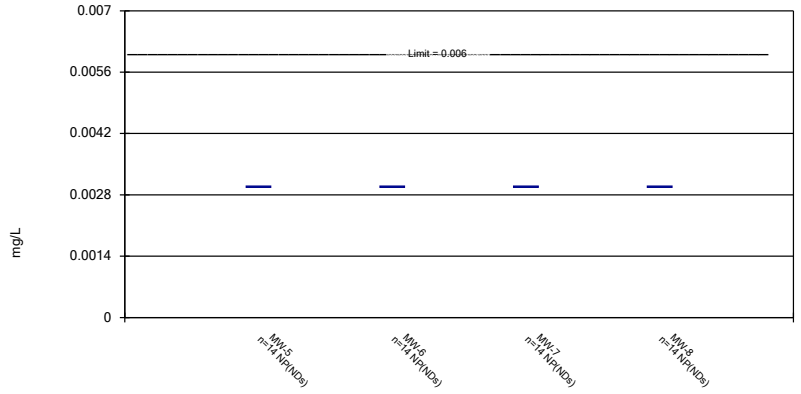
Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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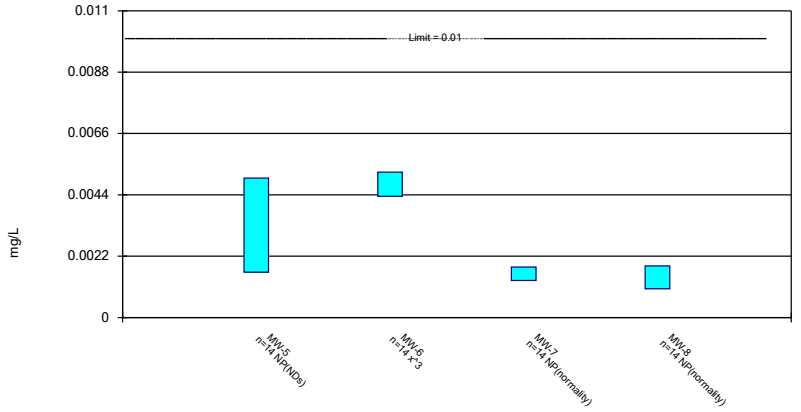
Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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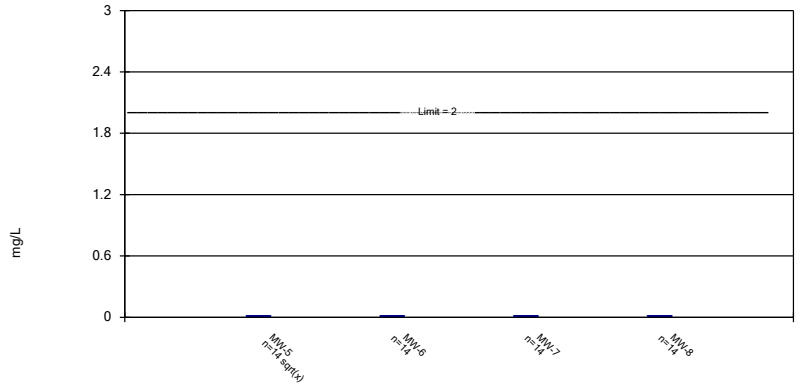
Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

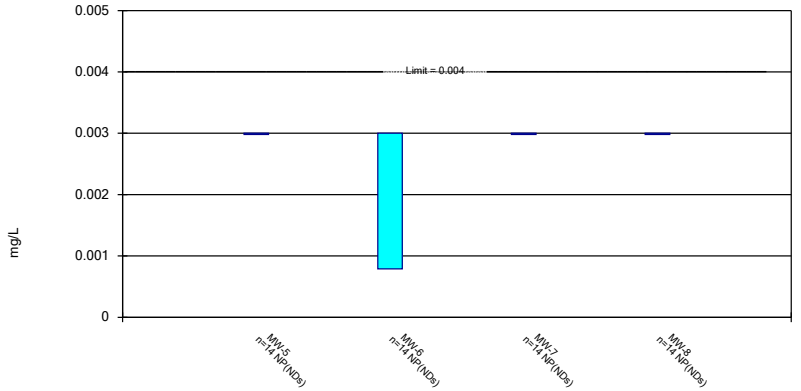


Constituent: Barium Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

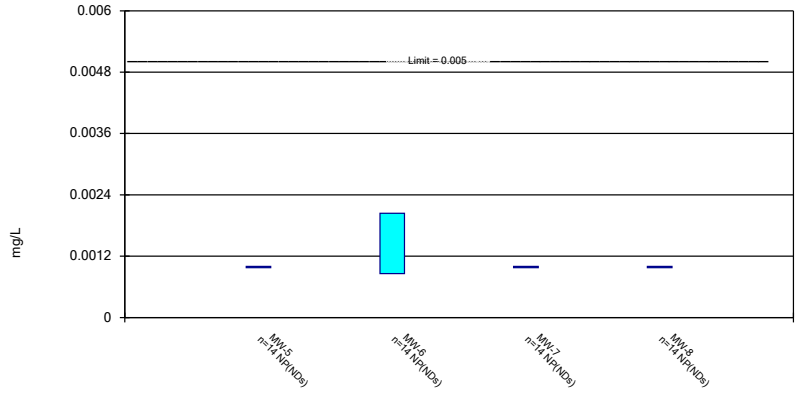


Constituent: Beryllium Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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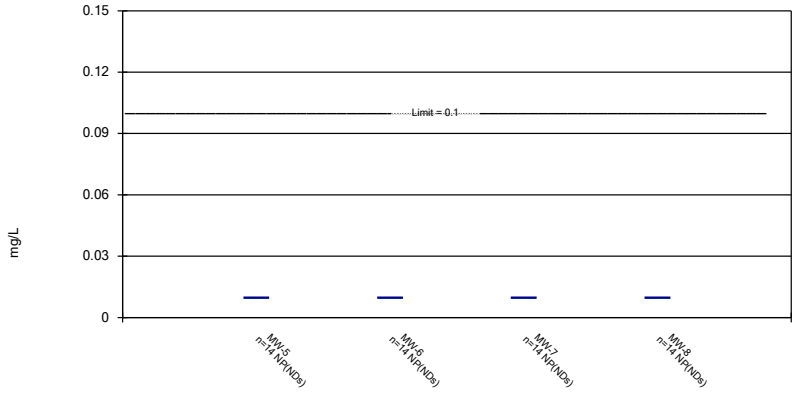
Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

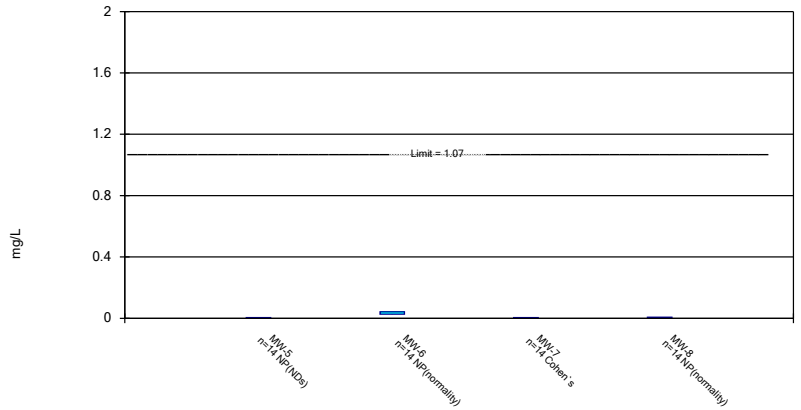


Constituent: Chromium Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

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.

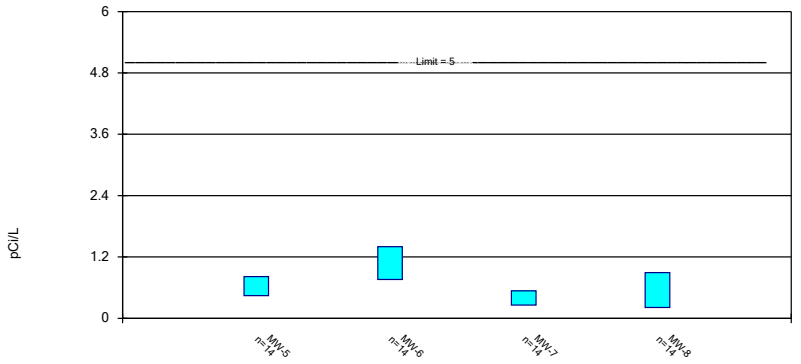


Constituent: Cobalt Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

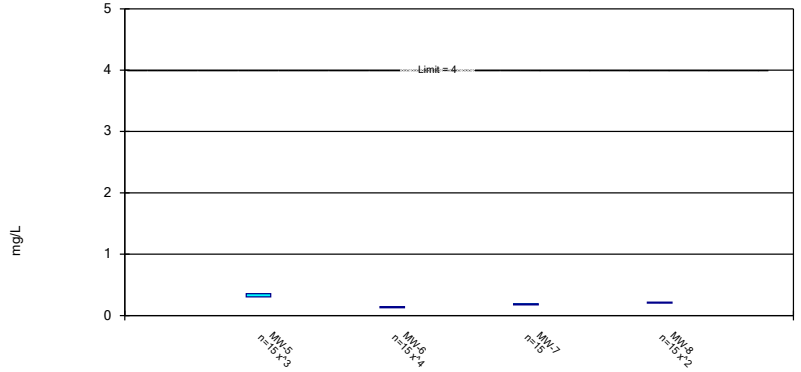


Constituent: Combined Radium 226 + 228 Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals -
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

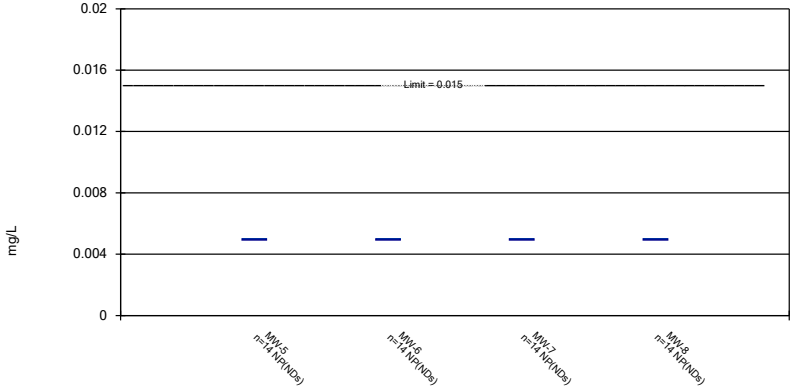


Constituent: Fluoride Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

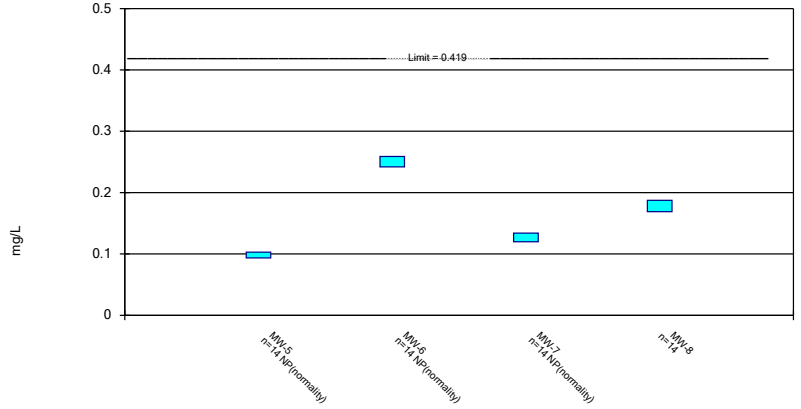


Constituent: Lead Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

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.

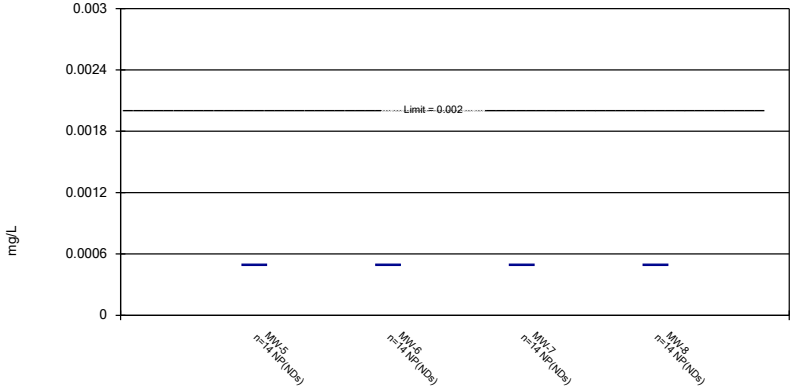


Constituent: Lithium Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

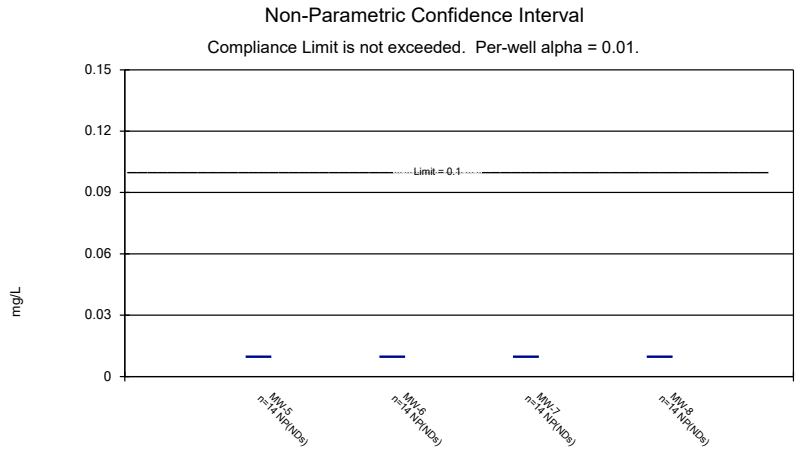
Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



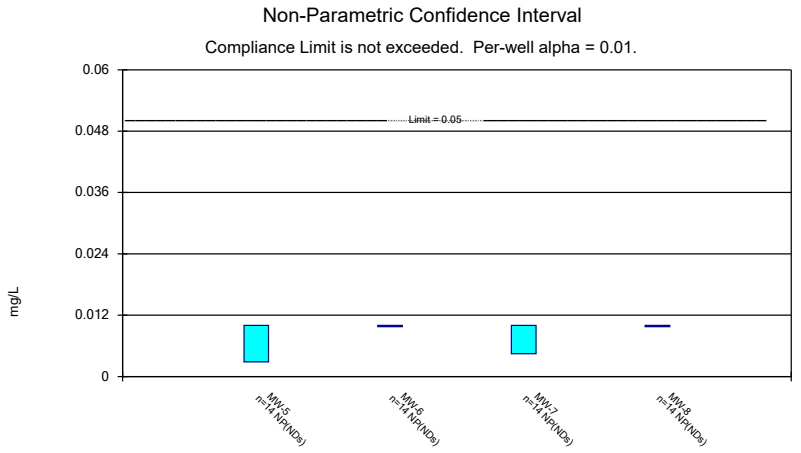
Constituent: Mercury Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



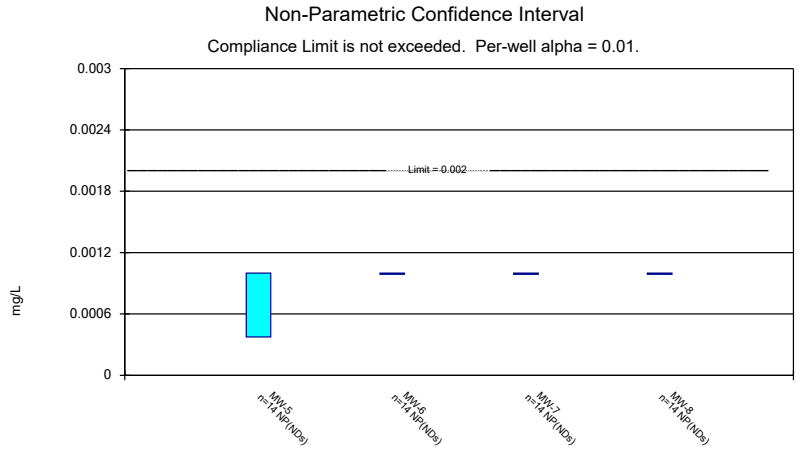
Constituent: Molybdenum Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



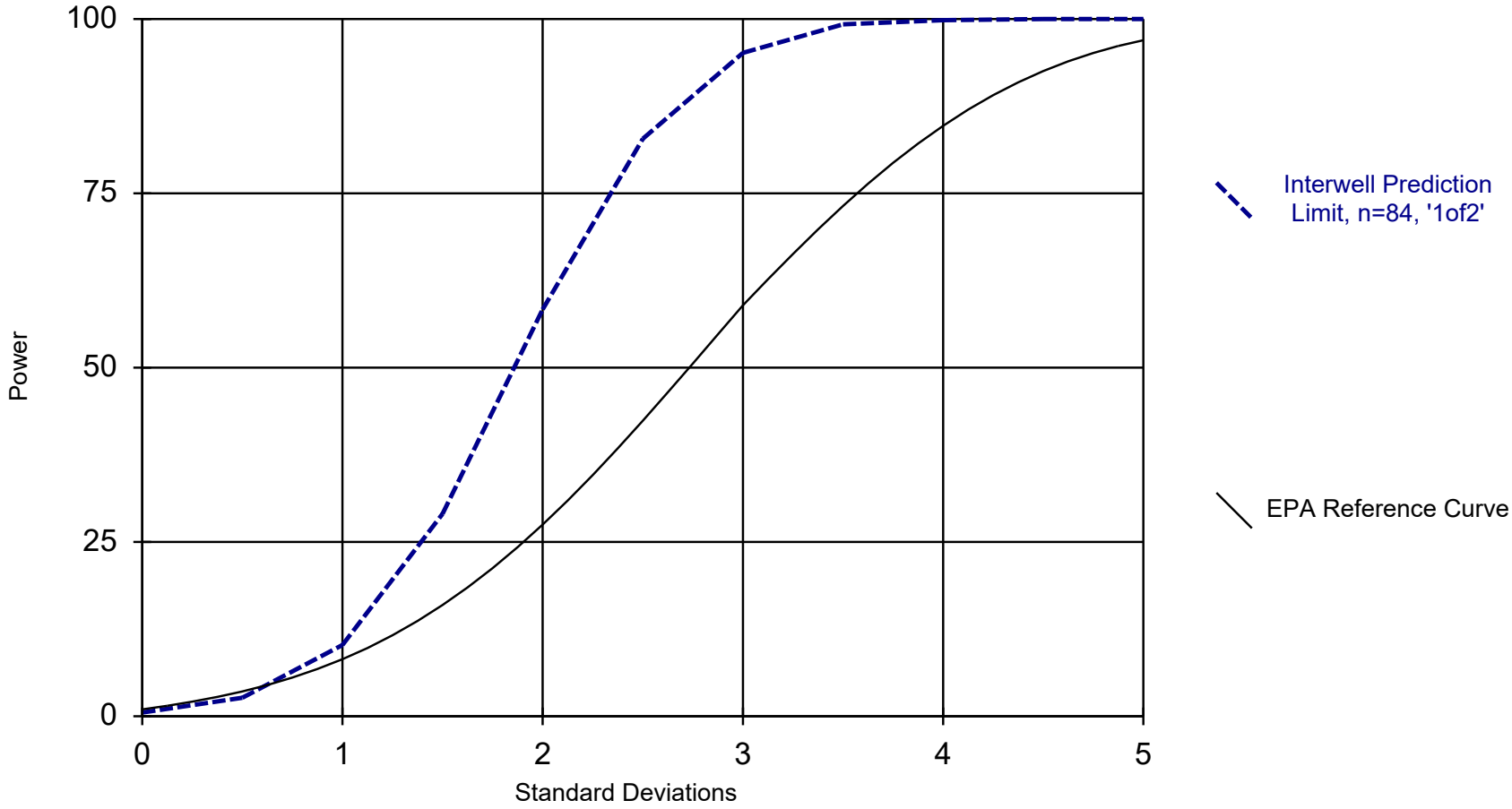
Constituent: Selenium Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



Constituent: Thallium Analysis Run 7/22/2020 10:44 AM View: Confidence Intervals - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Power Curve

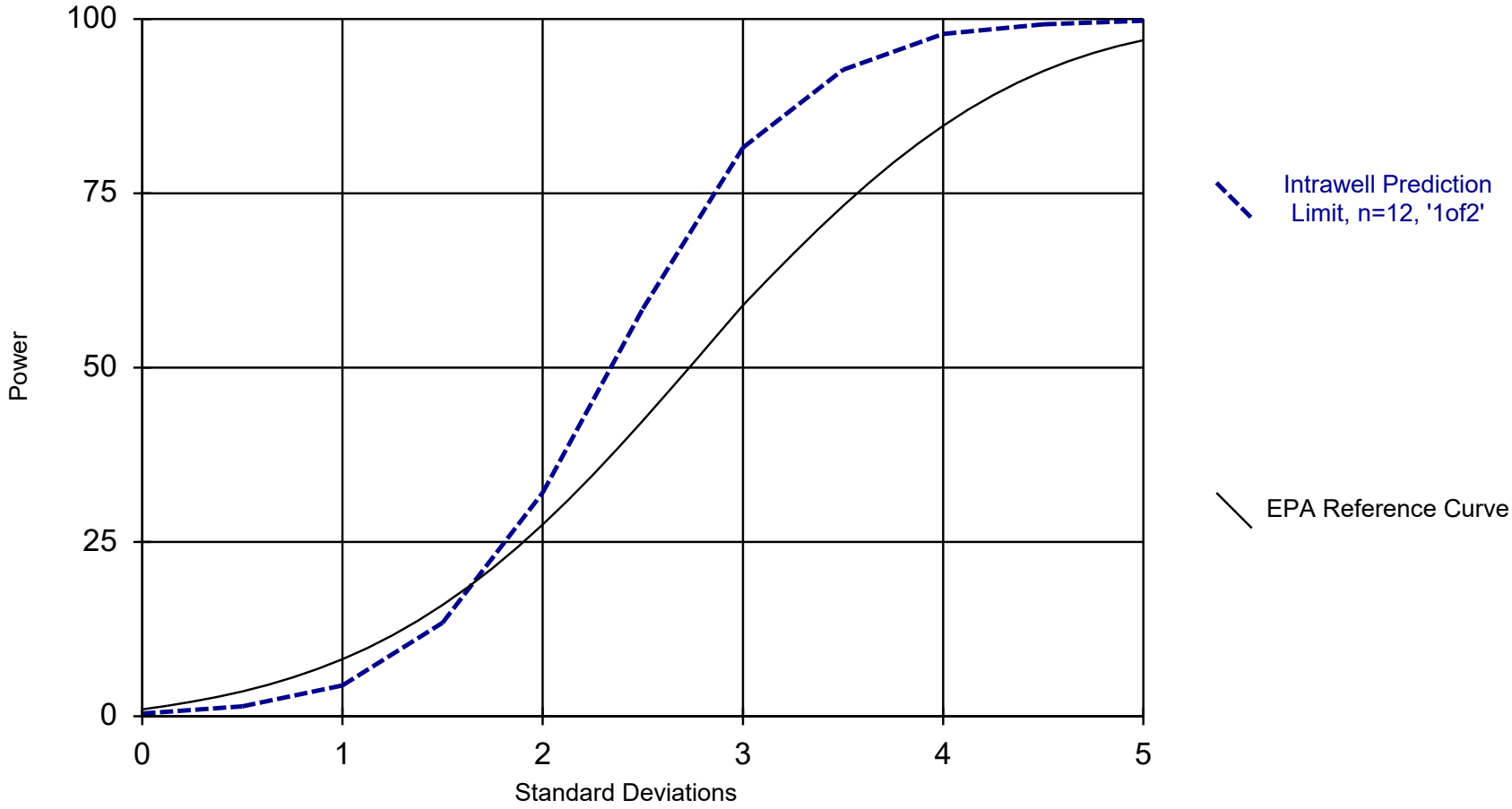


Kappa = 1.76, based on 4 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 6/5/2020 9:38 AM View: Power Curves

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Power Curve



Kappa = 2.232, based on 4 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 6/5/2020 9:40 AM View: Power Curves

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

2nd
Semi-Annual
Monitoring Event

GROUNDWATER STATS CONSULTING

October 20, 2020

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Gorgas CCR Landfill
2nd Semi-Annual Analysis – July 2020

Dear Mr. Dyer,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the July 2020 2nd semi-annual sample event for Alabama Power Company's Plant Gorgas CCR Landfill. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** MW-1, MW-2, MW-3, and MW-4
- **Downgradient wells:** MW-5, MW-6, MW-7, and MW-8

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting.

The CCR program consists of the following constituents:

> **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
> **Appendix IV** (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

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 with 100% nondetects follows this letter. A substitution of the most recent reporting limit is used for nondetect data.

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). A substitution of the most recent reporting limit is used for nondetect data. 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.

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 analysis of the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided in this report 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. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 11
- # Background Samples (Interwell): 88
- # Constituents: 7
- # Downgradient wells: 4

Summary of Statistical Methods – Appendix III Parameters

Based on the earlier evaluation described above, the following statistical methods were selected:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, fluoride, sulfate, and TDS
- Interwell prediction limits, combined with a 1-of-2 resample plan for chloride and pH

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 nondetects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends 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 (USEPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

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 intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater

quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after careful screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting 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.

Background Update Summary – Conducted in September 2019

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, are updated by testing for the appropriateness of consolidating new sampling observations with the screened background data. This process is described below and requires a minimum of four new data points. Historical data were evaluated for updating with newer data through May 2019 through the use of time series graphs to identify potential outliers when necessary, as well as the Mann Whitney test for equality of medians. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate boron, calcium, fluoride, sulfate, and TDS at all wells due to natural spatial variation for these parameters.

Interwell prediction limits are used to compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data for chloride and pH. As mentioned above, these limits are updated following each sampling event after careful screening for new outliers. Data from upgradient wells are also periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend. No adjustments were required in upgradient wells for constituents evaluated using interwell prediction limits.

Prior to performing prediction limits, proposed background data through May 2019 were reviewed to identify any newly suspected outliers at all wells for boron, calcium, fluoride, sulfate, and TDS, and at upgradient wells for chloride and pH. Both Tukey's Test and visual screening are used to identify potential outliers. When identified as outliers, values were flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective. Potential outliers that are identified by Tukey's test but are not greatly different from the rest of the data are not flagged. Also, outliers that are not identified as important by Tukey's test may be identified visually. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a

lighter font on the accompanying data pages. A summary of Tukey's test results for Appendix III parameters was included with the September 2019 screening.

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2017 for upgradient wells MW-1, MW-2, MW-3, and MW-4 and historical data through October 2017 for downgradient wells MW-5, MW-6, MW-7, and MW-8 to compliance data through May 2019. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with compliance data. Statistically significant differences were found between the two groups for calcium in wells MW-1 and MW-8; fluoride in wells MW-2 and MW-4; and TDS in well MW-1.

Typically, when the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data but will be reconsidered in the future. For this site, all background data sets were updated through May 2019 and a summary of these results was included with the Mann Whitney test section in the September 2019 screening.

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data is deselected prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. No statistically significant trends were noted in upgradient wells and a summary of the results was included with the September 2019 screening.

Evaluation of Appendix III Parameters – July 2020

For Appendix III parameters that are analyzed using interwell prediction limits, background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged. The background date ranges for intrawell Appendix III parameters remain the same as screened in the 2019 update. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for chloride and pH (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from

each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. The most recent sample from the same well is compared to its respective background. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Intrawell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, fluoride, sulfate, and TDS (Figure E). Background data for these limits are updated when a minimum of 4 compliance samples are available. This was last performed in September 2019 and the report was submitted at that time.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. A summary of the prediction limits results may be found in the Prediction Limit Summary tables following this letter. No exceedances were identified for intrawell prediction limits but exceedances for interwell prediction limits were identified for the following well/constituent pairs:

- Chloride: MW-5, MW-7, and MW-8
- pH: MW-5, MW-7, and MW-8

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 F). Upgradient wells 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. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. A summary of the trend test results follows this letter. A statistically significant increasing trend was identified for pH in well MW-8, and no other trends were noted.

Evaluation of Appendix IV Parameters – July 2020

Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis. A previously flagged outlier of 0.00473 mg/L for cadmium at upgradient well MW-3 was unflagged as it appears to represent natural groundwater concentrations. Additionally, the most recent (second highest) value of 0.00885 mg/L for cadmium at this well was flagged because the value did not appear to represent the population. A summary of flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management, the Groundwater Protections Standards (GWPS) utilized during the 2019 2nd semi-annual report were used in the confidence interval analysis for this 2020 2nd semi-annual report. The GWPS will be updated during the 2021 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

First, background limits were determined using tolerance limits constructed from pooled upgradient well data. The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. When data followed a normal or transformed-normal distribution, parametric tolerance limits were used to calculate background limits for Appendix IV parameters using pooled upgradient well data through October 2019 with a target of 95% confidence and 95% coverage (Figure G).

Nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% nondetects. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure H) in the confidence interval comparisons described below. Exceptions are noted in Figure H for beryllium and cadmium. For these two parameters, the MCL's were used as the GWPS rather than the higher background UTLs to maintain the more conservative standard. Note that none of the parametric tolerance limits resulted in higher limits than the established MCLs or CCR-Rule Specified Limits. In future UTL calculations, nonparametric tolerance limits will be used exclusively, as requested by ADEM, to eliminate variation among upgradient well data.

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through July 2020 for each of the Appendix IV parameters. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of nondetects. As mentioned

above, well/constituent pairs with 100% nondetects did not require statistics and were, therefore, deselected prior to construction confidence intervals. A list of those deselected well/constituent pairs follows this report. The decision logic, with respect to the use of parametric or nonparametric confidence intervals, is similar to that used to construct tolerance limits as discussed above. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter (Figure I). No exceedances were noted for any of the well/constituent pairs.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Gorgas CCR Landfill. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Andrew Collins
Project Manager

Kristina Rayner
Groundwater Statistician

100% Non-Detects

Analysis Run 10/19/2020 11:50 AM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Antimony (mg/L)
MW-5, MW-6, MW-7, MW-8

Beryllium (mg/L)
MW-5, MW-7, MW-8

Cadmium (mg/L)
MW-5, MW-7, MW-8

Chromium (mg/L)
MW-5, MW-6, MW-7, MW-8

Cobalt (mg/L)
MW-5

Lead (mg/L)
MW-5, MW-6, MW-7, MW-8

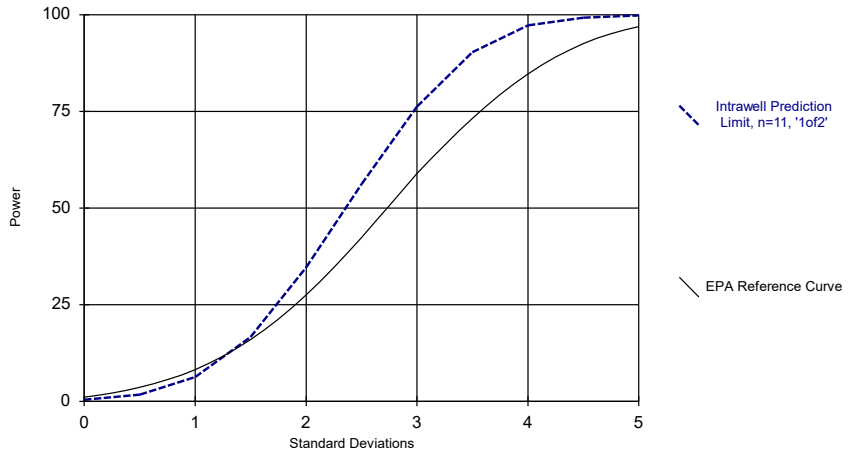
Mercury (mg/L)
MW-5, MW-6, MW-7, MW-8

Molybdenum (mg/L)
MW-5, MW-6, MW-7, MW-8

Selenium (mg/L)
MW-6, MW-7, MW-8

Thallium (mg/L)
MW-5, MW-6, MW-7, MW-8

Intrawell Power Curve



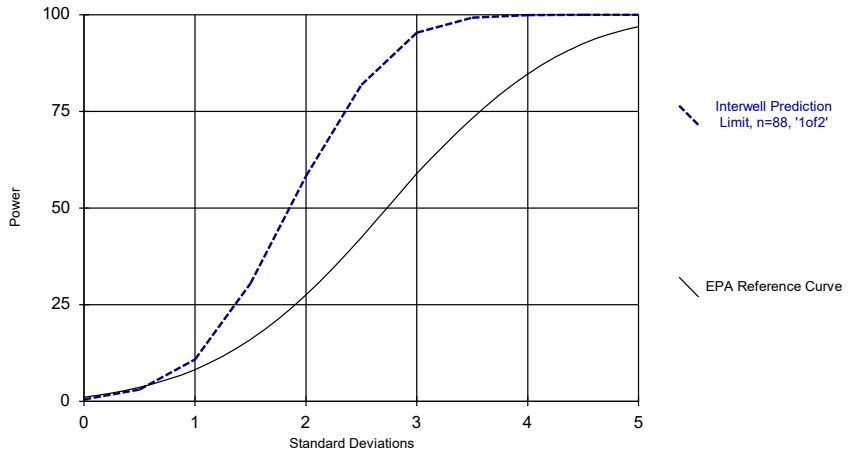
Kappa = 2.3, based on 4 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/12/2020 4:19 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Interwell Power Curve



Kappa = 1.759, based on 4 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/12/2020 4:19 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, Total (mg/L)	**MW-5**	**3.873**	**n/a**	**7/14/2020**	**6.84**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	**MW-7**	**3.873**	**n/a**	**7/14/2020**	**9.68**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	**MW-8**	**3.873**	**n/a**	**7/15/2020**	**23.8**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
pH, Field (SU)	**MW-5**	**6.35**	**3.77**	**7/14/2020**	**6.48**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	**MW-7**	**6.35**	**3.77**	**7/14/2020**	**6.52**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	**MW-8**	**6.35**	**3.77**	**7/15/2020**	**6.71**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, Total (mg/L)	**MW-5**	**3.873**	**n/a**	**7/14/2020**	**6.84**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	MW-6	3.873	n/a	7/14/2020	3.25	No	88	1.295	0.1567	3.409	None	x^(1/3)	0.00188	Param 1 of 2
Chloride, Total (mg/L)	**MW-7**	**3.873**	**n/a**	**7/14/2020**	**9.68**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	**MW-8**	**3.873**	**n/a**	**7/15/2020**	**23.8**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
pH, Field (SU)	**MW-5**	**6.35**	**3.77**	**7/14/2020**	**6.48**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	MW-6	6.35	3.77	7/14/2020	6.12	No	90	n/a	n/a	0	n/a	n/a	0.0004759	NP (normality) 1 of 2
pH, Field (SU)	**MW-7**	**6.35**	**3.77**	**7/14/2020**	**6.52**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	**MW-8**	**6.35**	**3.77**	**7/15/2020**	**6.71**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2

Intrawell Prediction Limits - All Results (No Significant)

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:16 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	MW-1	0.05	n/a	7/13/2020	0.05ND	No	18	n/a	n/a	16.67	n/a	n/a	0.005373	NP (normality) 1 of 2
Boron, total (mg/L)	MW-2	0.04783	n/a	7/13/2020	0.05ND	No	18	0.03116	0.008202	11.11	None	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-3	0.05843	n/a	7/13/2020	0.0366J	No	18	0.0423	0.00794	16.67	Kaplan-Meier	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-4	0.1015	n/a	7/14/2020	0.0441J	No	18	n/a	n/a	5.556	n/a	n/a	0.005373	NP (normality) 1 of 2
Boron, total (mg/L)	MW-5	0.1015	n/a	7/14/2020	0.033J	No	12	n/a	n/a	8.333	n/a	n/a	0.01077	NP (normality) 1 of 2
Boron, total (mg/L)	MW-6	0.09671	n/a	7/14/2020	0.0838J	No	12	0.07943	0.007739	0	None	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-7	0.08083	n/a	7/14/2020	0.0865J	No	11	0.07139	0.004105	0	None	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-8	0.0831	n/a	7/15/2020	0.0723J	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP (normality) 1 of 2
Calcium, total (mg/L)	MW-1	243	n/a	7/13/2020	147	No	18	n/a	n/a	0	n/a	n/a	0.005373	NP (normality) 1 of 2
Calcium, total (mg/L)	MW-2	218.6	n/a	7/13/2020	163	No	18	173.9	22.02	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-3	416.4	n/a	7/13/2020	264	No	18	301.6	56.48	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-4	388.7	n/a	7/14/2020	259	No	18	311.2	38.16	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-5	466.9	n/a	7/14/2020	395	No	12	382.1	38.01	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-6	471.6	n/a	7/14/2020	406	No	12	390.4	36.38	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-7	346.8	n/a	7/14/2020	261	No	12	2.6e7	6944823	0	None	x^3	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-8	341.4	n/a	7/15/2020	280	No	12	304.5	16.53	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-1	0.1975	n/a	7/13/2020	0.0678J	No	19	0.1261	0.03556	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-2	0.2572	n/a	7/13/2020	0.132	No	19	0.1404	0.05808	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-3	0.6475	n/a	7/13/2020	0.13	No	19	-1.063	0.3126	0	None	ln(x)	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-4	0.4323	n/a	7/14/2020	0.33	No	19	0.1114	0.03754	0	None	x^2	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-5	0.4265	n/a	7/14/2020	0.263	No	13	0.3334	0.04245	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-6	0.1565	n/a	7/14/2020	0.115	No	13	0.1398	0.007628	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-7	0.2139	n/a	7/14/2020	0.193	No	13	0.1855	0.01295	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-8	0.2342	n/a	7/15/2020	0.196	No	13	0.2142	0.009112	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-1	2100	n/a	7/13/2020	1450	No	18	n/a	n/a	0	n/a	n/a	0.005373	NP (normality) 1 of 2
Sulfate as SO4 (mg/L)	MW-2	1260	n/a	7/13/2020	843	No	18	1003	126.2	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-3	3202	n/a	7/13/2020	2130	No	18	2431	379.6	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-4	3041	n/a	7/14/2020	1970	No	18	2566	233.5	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-5	2558	n/a	7/14/2020	2080	No	12	2339	98.21	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-6	2232	n/a	7/14/2020	1970	No	12	1983	111.5	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-7	1613	n/a	7/14/2020	1330	No	11	1306	133.5	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-8	2100	n/a	7/15/2020	1410	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-1	2544	n/a	7/13/2020	2240	No	18	2183	178	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-2	2052	n/a	7/13/2020	1540	No	18	1640	202.8	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-3	4938	n/a	7/13/2020	3650	No	18	3661	628.6	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-4	4601	n/a	7/14/2020	3310	No	18	1.6e7	2719774	0	None	x^2	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-5	4190	n/a	7/14/2020	3710	No	12	3846	154.3	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-6	3448	n/a	7/14/2020	3270	No	12	3283	74.36	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-7	2647	n/a	7/14/2020	2210	No	12	6.3e16	3.0e16	0	None	x^5	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-8	2862	n/a	7/15/2020	2460	No	12	2593	120.2	0	None	No	0.00188	Param 1 of 2

Trend Tests Summary Table - Prediction Limit Exceedances - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:40 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH, Field (SU)	**MW-8**	**0.06**	**80**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests Summary Table - Prediction Limit Exceedances - All Results

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:40 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride, Total (mg/L)	MW-1 (bg)	0	0	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-2 (bg)	0.1677	24	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-3 (bg)	0.02528	26	92	No	22	9.091	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-4 (bg)	-0.05046	-45	-92	No	22	4.545	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-5	-0.07458	-12	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-7	-5.329	-10	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-8	-38.53	-35	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-1 (bg)	-0.01151	-57	-92	No	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-2 (bg)	0.03795	66	92	No	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-3 (bg)	-0.1298	-47	-98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-4 (bg)	0.01825	74	98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-5	0.01058	32	58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-7	-0.01209	-24	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	**MW-8**	**0.06**	**80**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Upper Tolerance Limits - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:42 AM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	80	n/a	n/a	92.5	n/a	n/a	0.01652	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	80	n/a	n/a	91.25	n/a	n/a	0.01652	NP Inter(NDs)
Barium (mg/L)	0.01527	n/a	80	-4.517	0.1705	0	None	ln(x)	0.05	Inter
Beryllium (mg/L)	0.0121	n/a	78	n/a	n/a	82.05	n/a	n/a	0.0183	NP Inter(NDs)
Cadmium (mg/L)	0.00598	n/a	79	n/a	n/a	49.37	n/a	n/a	0.01738	NP Inter(normal...
Chromium (mg/L)	0.0105	n/a	80	n/a	n/a	95	n/a	n/a	0.01652	NP Inter(NDs)
Cobalt (mg/L)	1.07	n/a	80	n/a	n/a	25	n/a	n/a	0.01652	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	1.098	n/a	76	0.4542	0.3266	0	None	No	0.05	Inter
Fluoride (mg/L)	0.5302	n/a	84	0.4636	0.1353	0	None	sqrt(x)	0.05	Inter
Lead (mg/L)	0.00692	n/a	80	n/a	n/a	96.25	n/a	n/a	0.01652	NP Inter(NDs)
Lithium (mg/L)	0.419	n/a	80	n/a	n/a	0	n/a	n/a	0.01652	NP Inter(normal...
Mercury (mg/L)	0.0005	n/a	80	n/a	n/a	100	n/a	n/a	0.01652	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	80	n/a	n/a	100	n/a	n/a	0.01652	NP Inter(NDs)
Selenium (mg/L)	0.0158	n/a	79	n/a	n/a	67.09	n/a	n/a	0.01738	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	80	n/a	n/a	96.25	n/a	n/a	0.01652	NP Inter(NDs)

Confidence Intervals Summary Table - All Results (No Significant Results)

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/19/2020, 12:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MW-5	0.005	0.00153	0.01	No	8	0.004145	0.001583	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-6	0.005719	0.003438	0.01	No	8	0.004579	0.001076	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-7	0.001489	0.001319	0.01	No	8	0.001404	0.00008035	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001921	0.001104	0.01	No	8	0.001513	0.0003856	0	None	No	0.01	Param.
Barium (mg/L)	MW-5	0.01325	0.01002	2	No	8	0.01164	0.001525	0	None	No	0.01	Param.
Barium (mg/L)	MW-6	0.01505	0.01232	2	No	8	0.01369	0.001288	0	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.01421	0.01142	2	No	8	0.01281	0.001314	0	None	No	0.01	Param.
Barium (mg/L)	MW-8	0.01398	0.01229	2	No	8	0.01314	0.0007981	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-6	0.003	0.000677	0.004	No	8	0.002433	0.00105	75	None	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-6	0.00204	0.000858	0.005	No	8	0.001112	0.0003781	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-6	0.479	0.0274	1.07	No	8	0.1262	0.1634	0	None	No	0.004	NP (normality)
Cobalt (mg/L)	MW-7	0.005294	0.002523	1.07	No	8	0.004181	0.001311	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.00808	0.004448	1.07	No	8	0.006264	0.001713	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-5	0.853	0.3565	5	No	8	0.6048	0.2342	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-6	1.503	0.4207	5	No	8	0.9619	0.5105	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-7	0.6537	0.1836	5	No	8	0.4187	0.2218	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-8	0.9508	0.1058	5	No	8	0.5283	0.3986	0	None	No	0.01	Param.
Fluoride, total (mg/L)	MW-5	0.3524	0.2366	4	No	8	0.2945	0.05464	0	None	No	0.01	Param.
Fluoride, total (mg/L)	MW-6	0.1405	0.1063	4	No	8	0.1203	0.02954	12.5	None	x^4	0.01	Param.
Fluoride, total (mg/L)	MW-7	0.1918	0.1652	4	No	8	0.1785	0.01259	0	None	No	0.01	Param.
Fluoride, total (mg/L)	MW-8	0.2145	0.1902	4	No	8	0.2024	0.01146	0	None	No	0.01	Param.
Lithium (mg/L)	MW-5	0.1203	0.09371	0.419	No	8	0.107	0.01253	0	None	No	0.01	Param.
Lithium (mg/L)	MW-6	0.2651	0.1686	0.419	No	8	0.2096	0.07375	0	None	x^3	0.01	Param.
Lithium (mg/L)	MW-7	0.1325	0.1125	0.419	No	8	0.1225	0.009442	0	None	No	0.01	Param.
Lithium (mg/L)	MW-8	0.1885	0.153	0.419	No	8	0.1708	0.01678	0	None	No	0.01	Param.
Selenium (mg/L)	MW-5	0.01	0.00288	0.05	No	8	0.00911	0.002517	87.5	None	No	0.004	NP (NDs)

FIGURE A.

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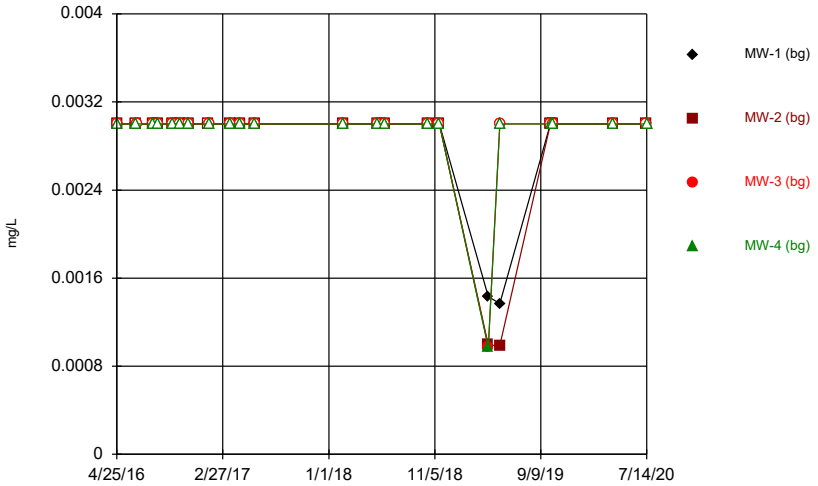
Hollow symbols indicate censored values.

Time Series



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Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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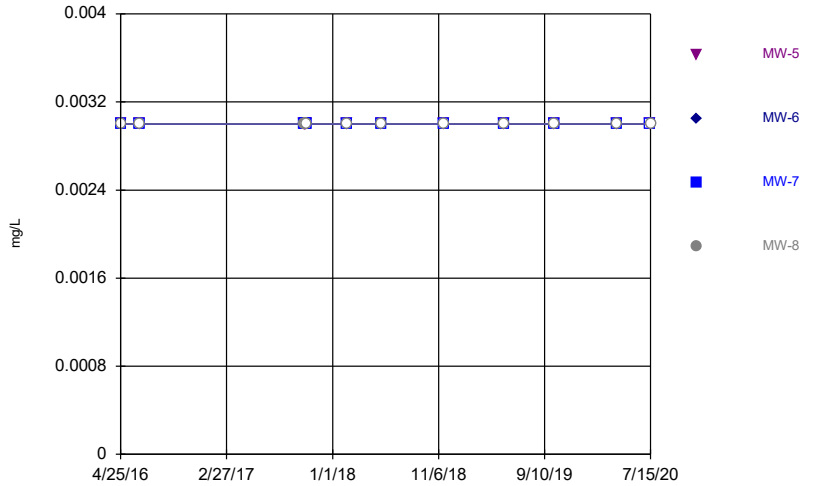

Constituent: Antimony Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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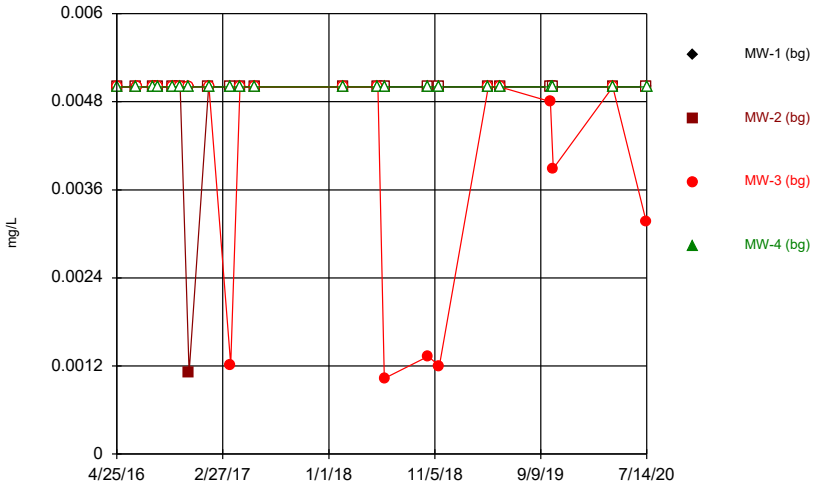

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Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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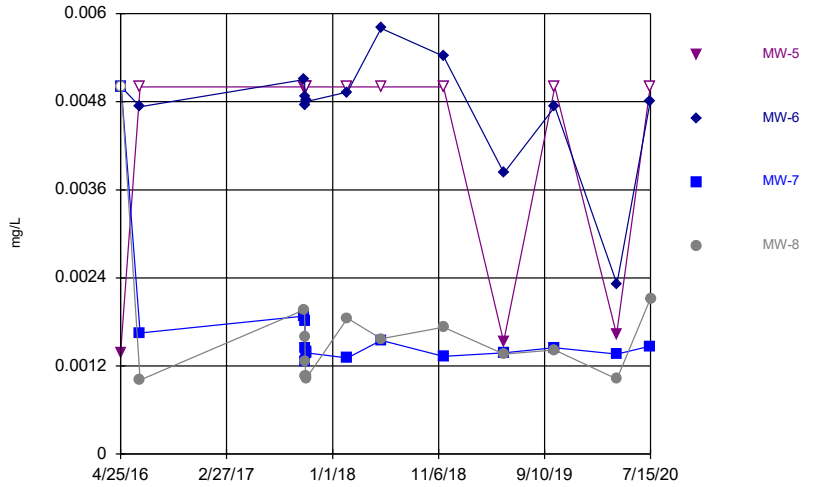

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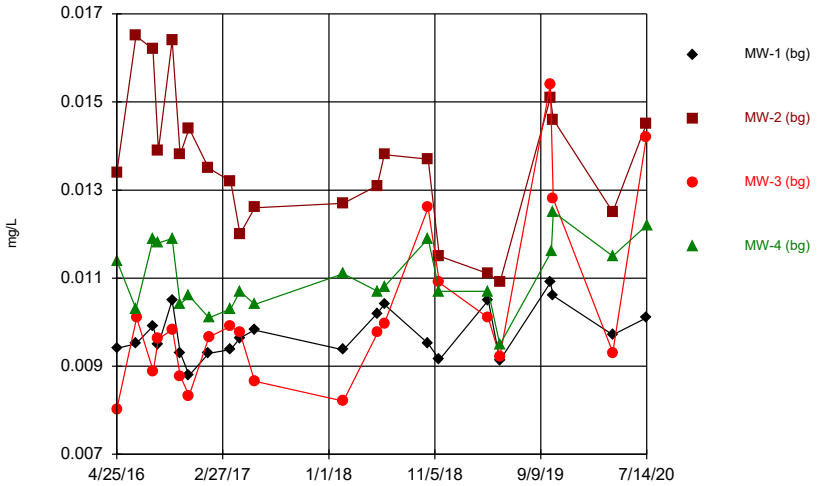
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



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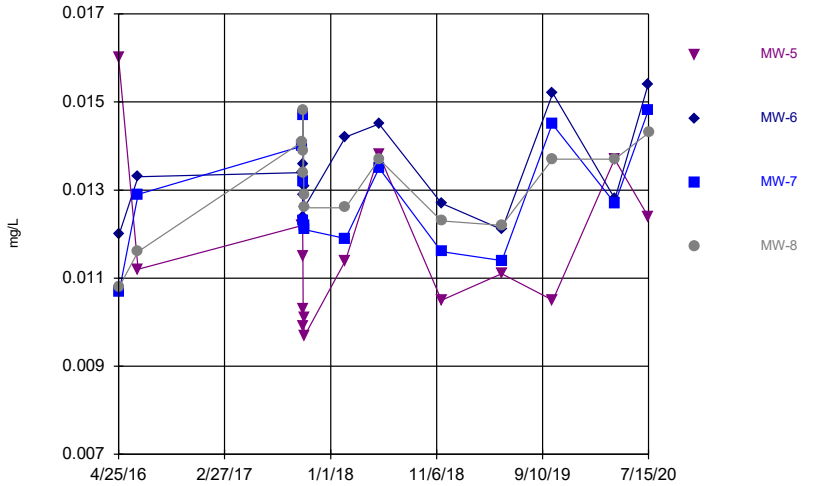
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



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Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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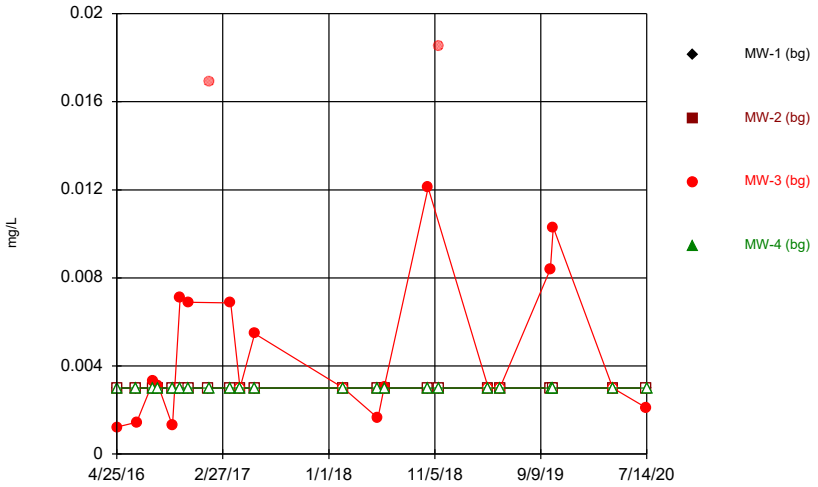

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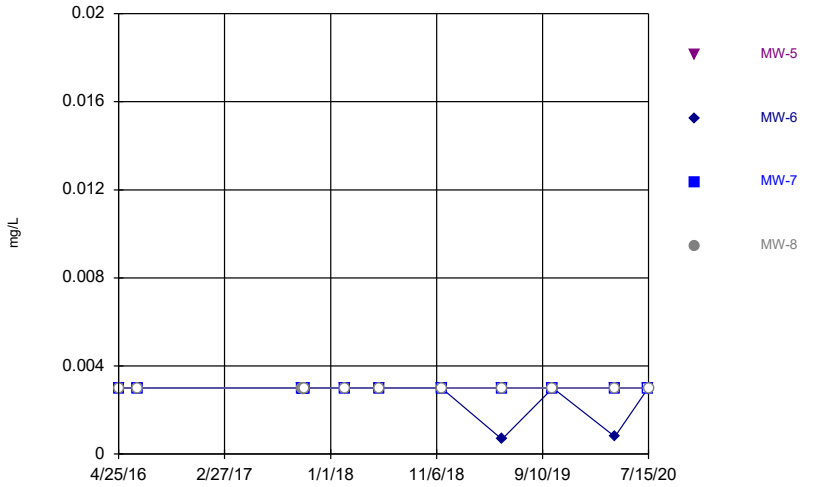
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

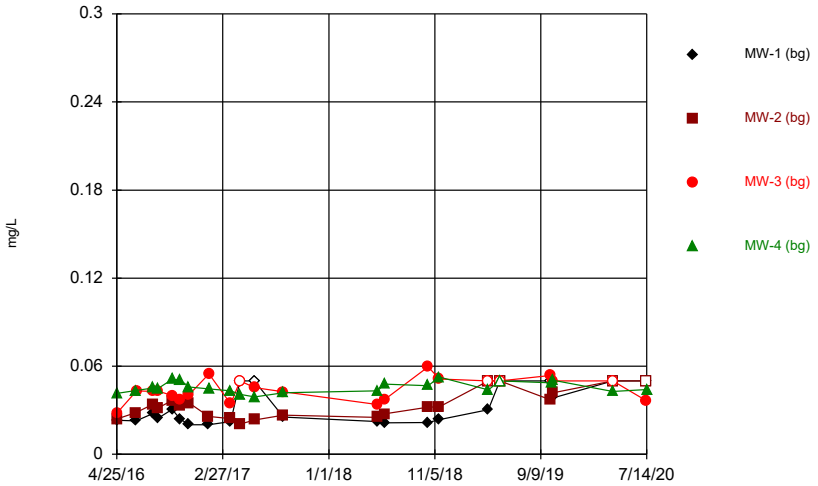


Constituent: Beryllium Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

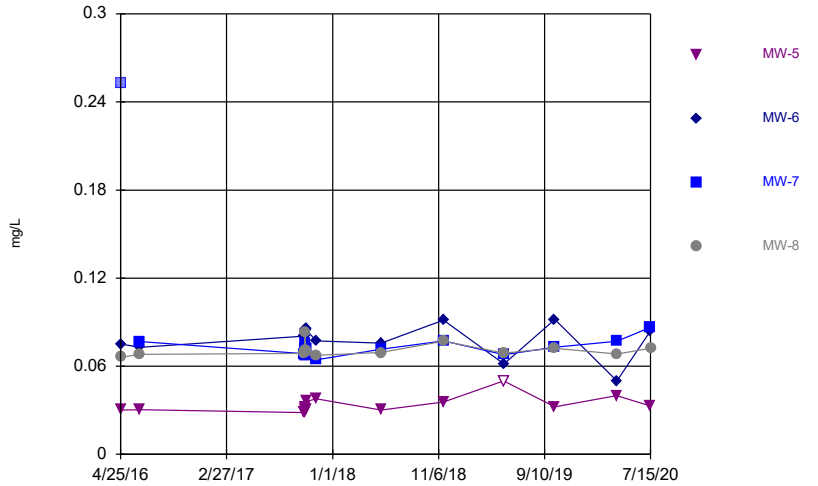
Time Series



Constituent: Boron, total Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

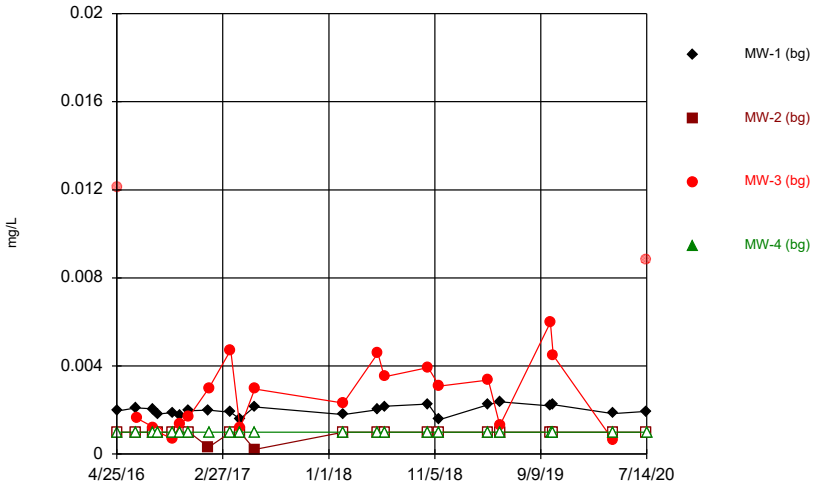
Time Series



Constituent: Boron, total Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

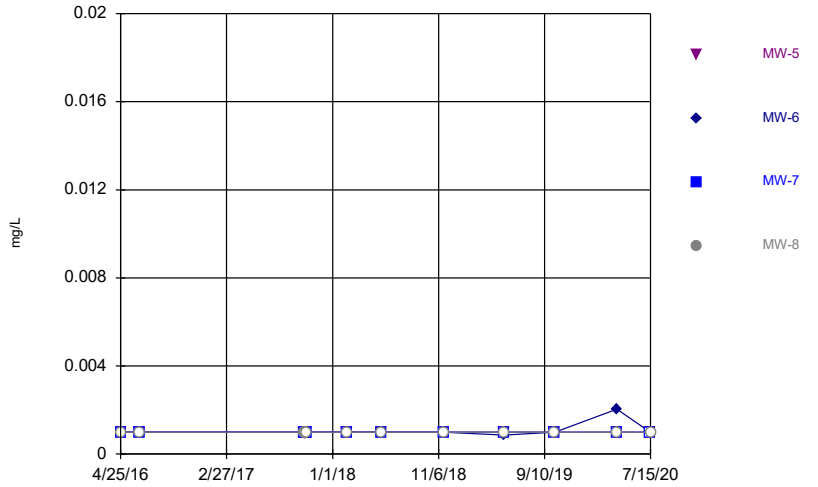
Time Series



Constituent: Cadmium Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

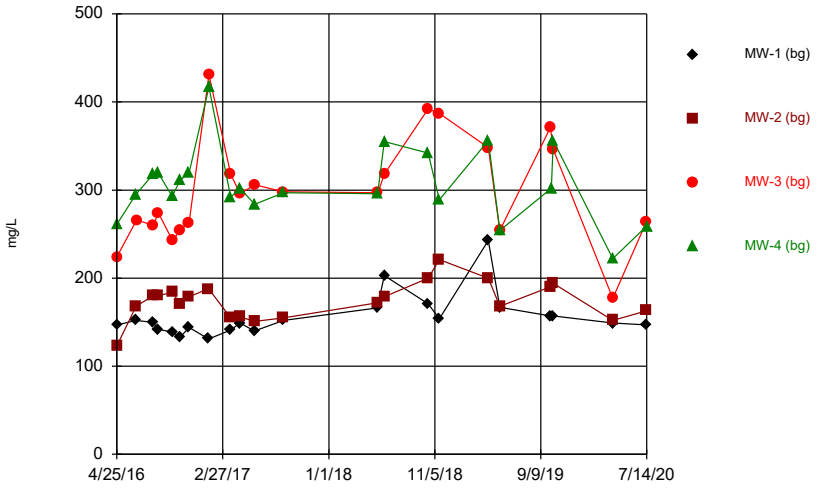
Time Series



Constituent: Cadmium Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

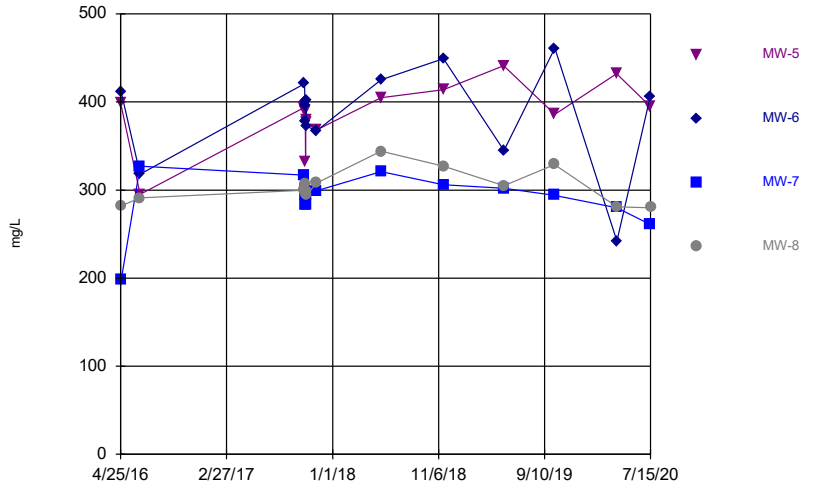


Constituent: Calcium, total Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



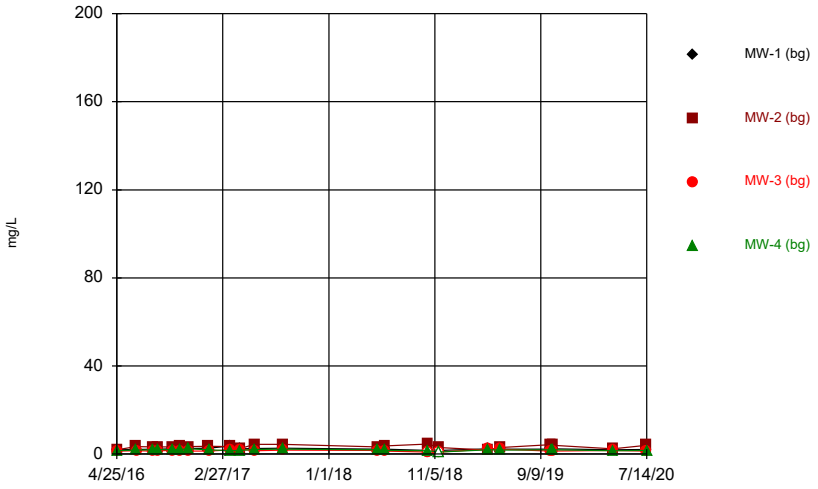
Constituent: Calcium, total Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

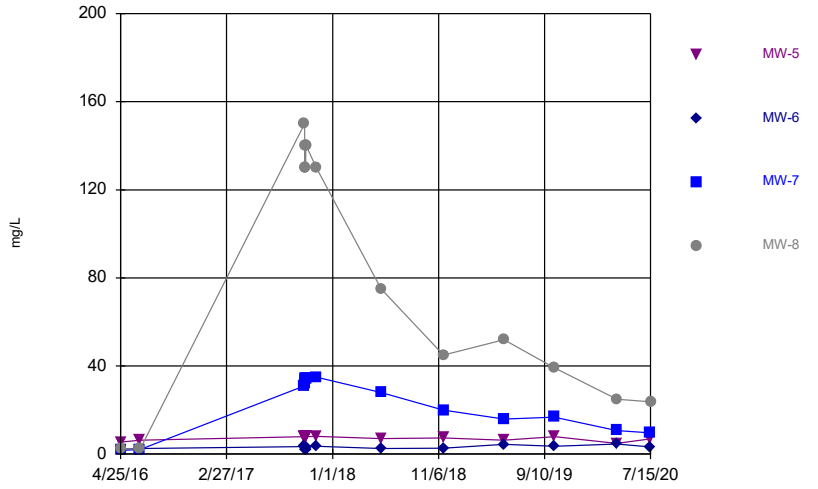


Constituent: Chloride, Total Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

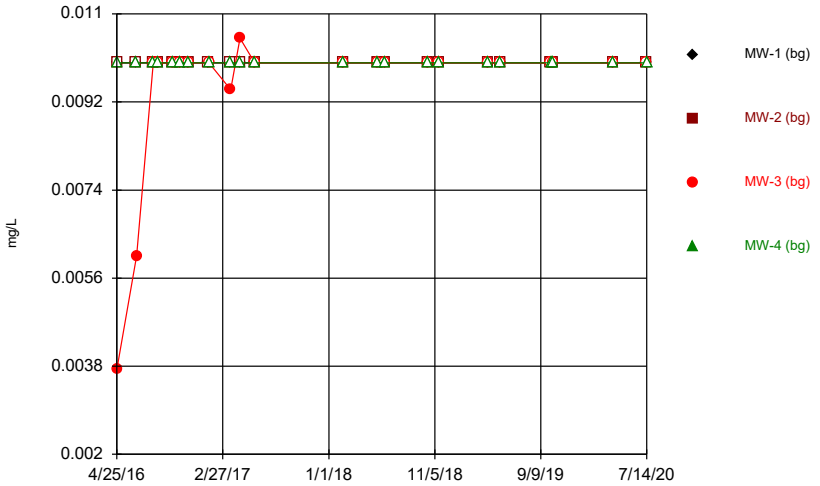


Constituent: Chloride, Total Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

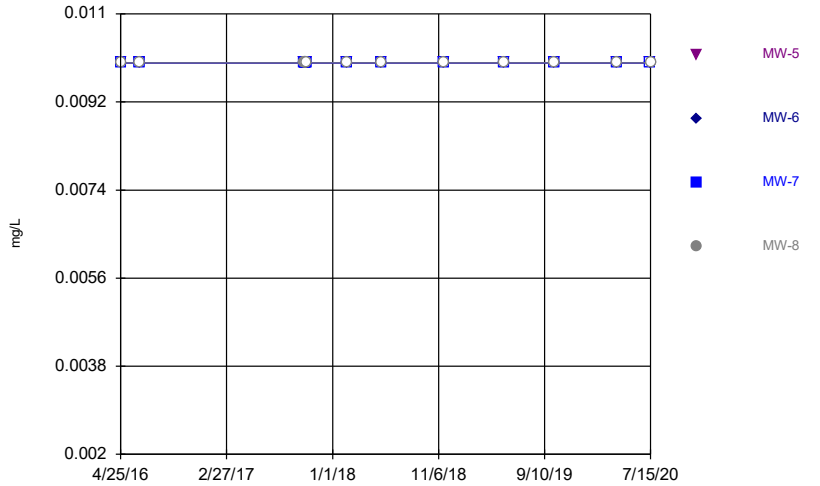
Time Series



Constituent: Chromium Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

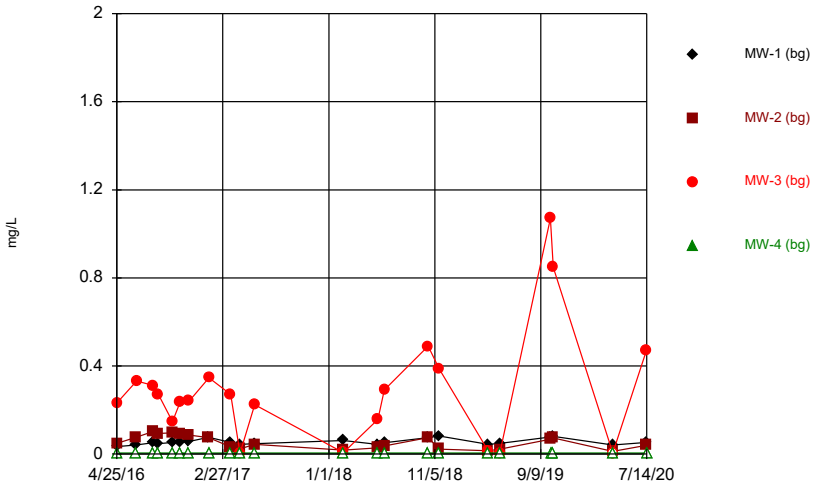
Time Series



Constituent: Chromium Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

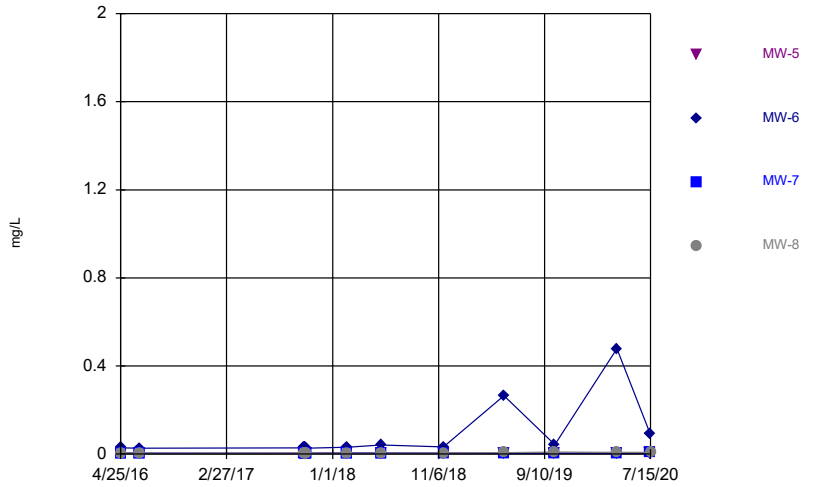
Time Series



Constituent: Cobalt Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

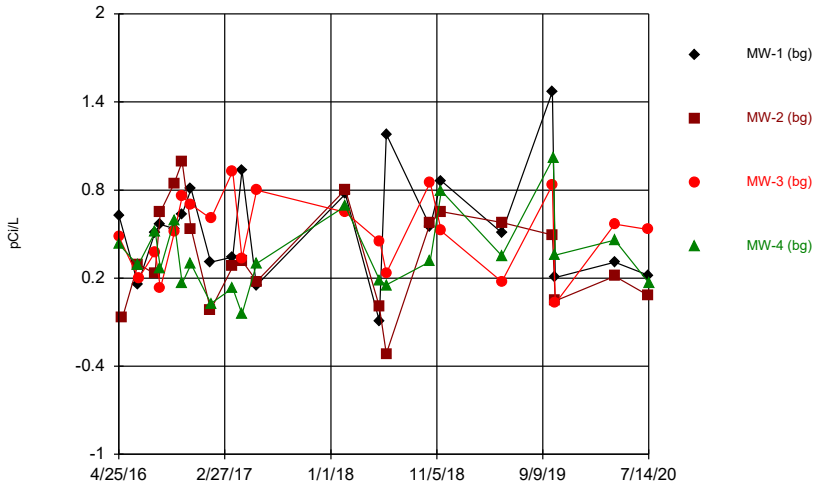
Time Series



Constituent: Cobalt Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

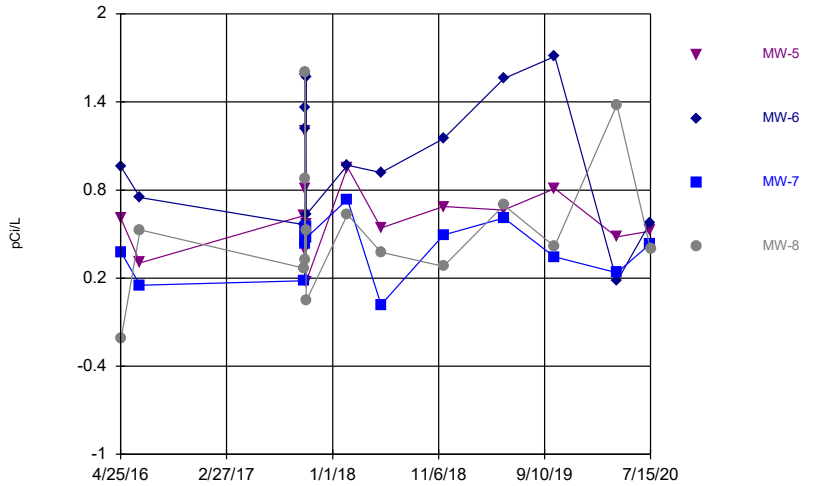


Constituent: Combined Radium 226 + 228 Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

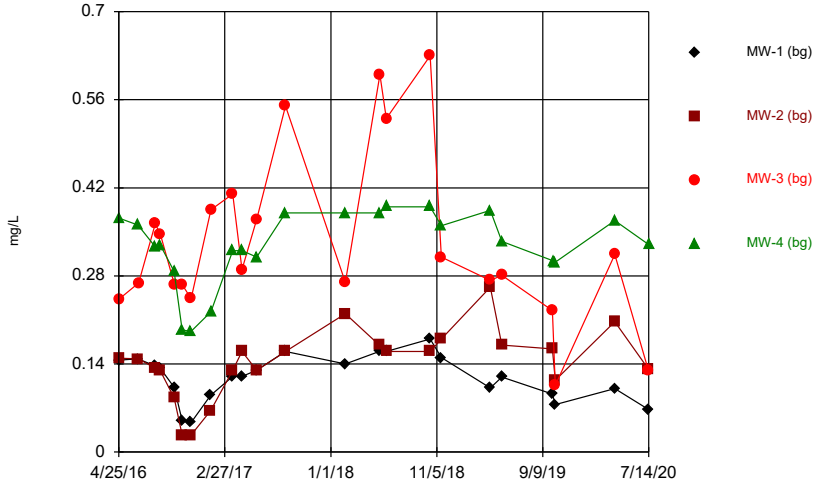


Constituent: Combined Radium 226 + 228 Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



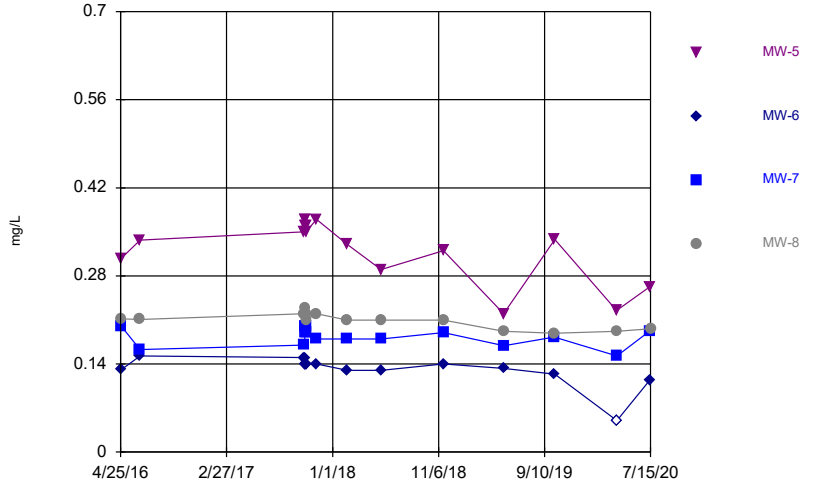
Constituent: Fluoride, total Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

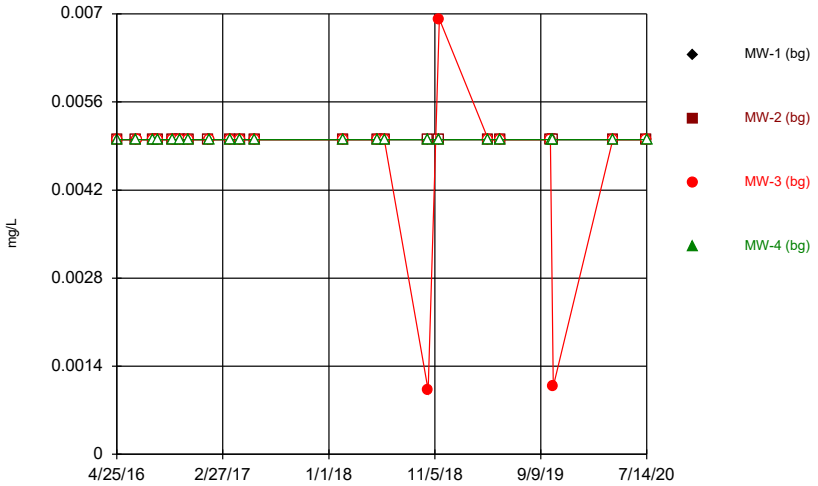


Constituent: Fluoride, total Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

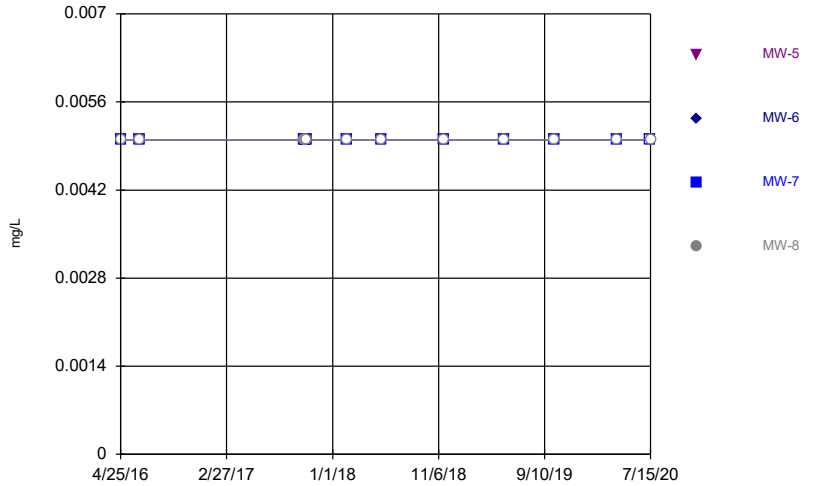
Time Series



Constituent: Lead Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

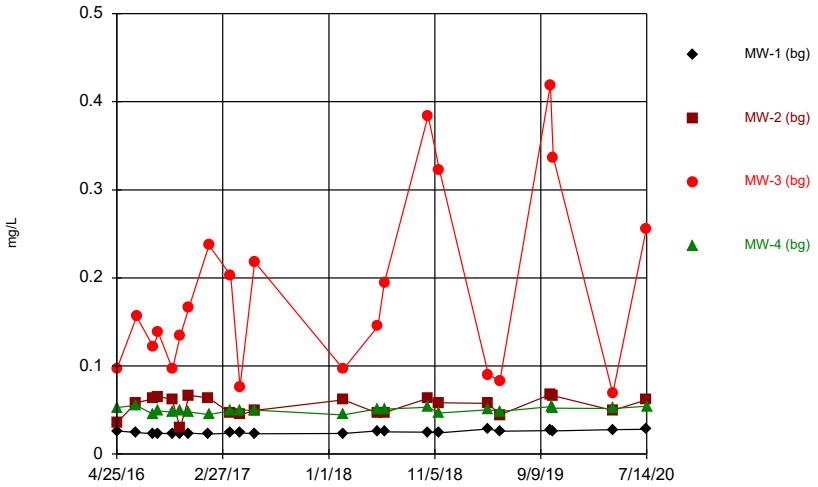
Time Series



Constituent: Lead Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

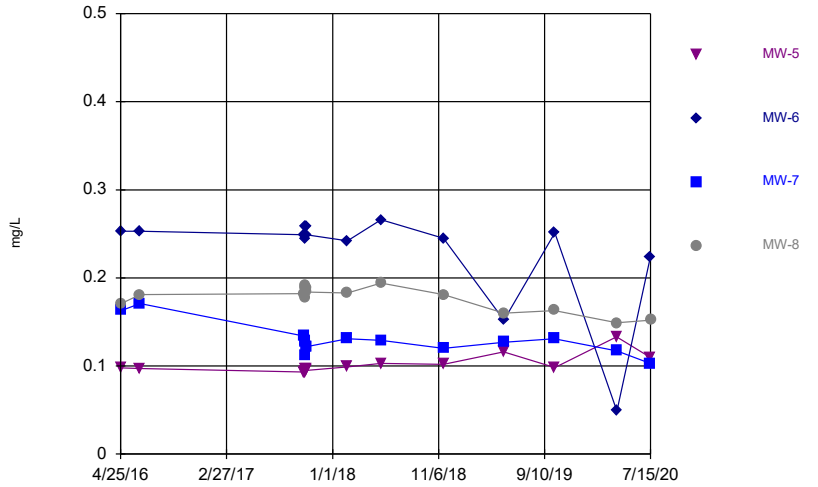
Time Series



Constituent: Lithium Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

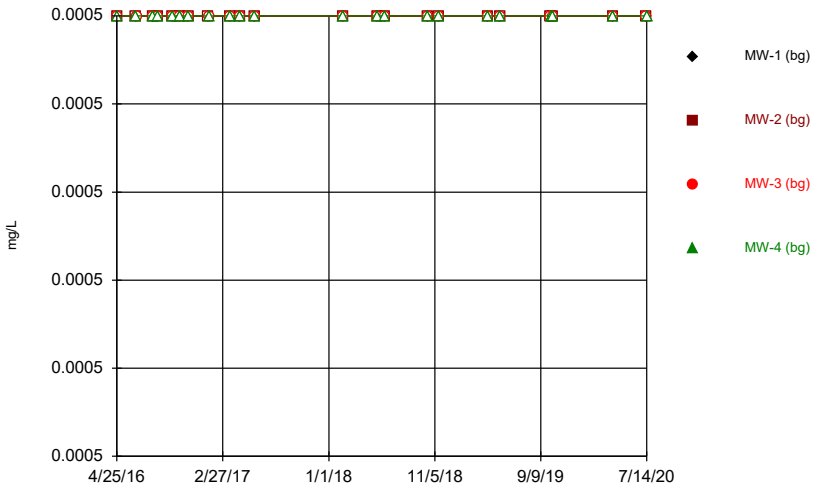
Time Series



Constituent: Lithium Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

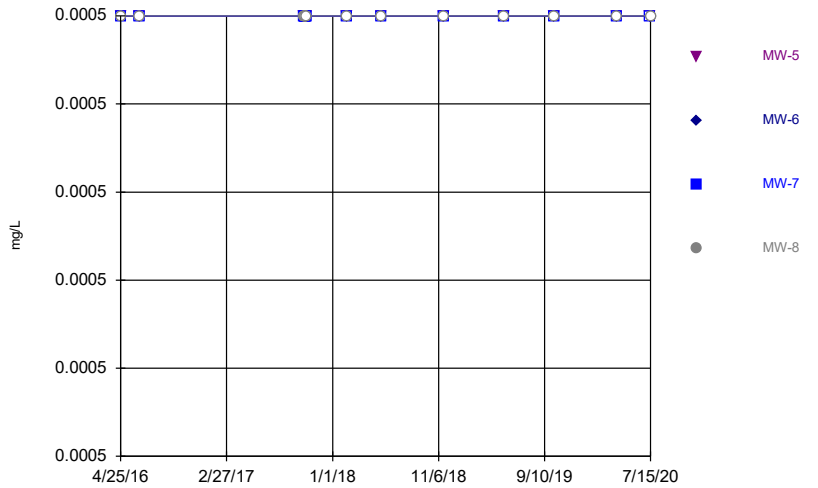
Time Series



Constituent: Mercury Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

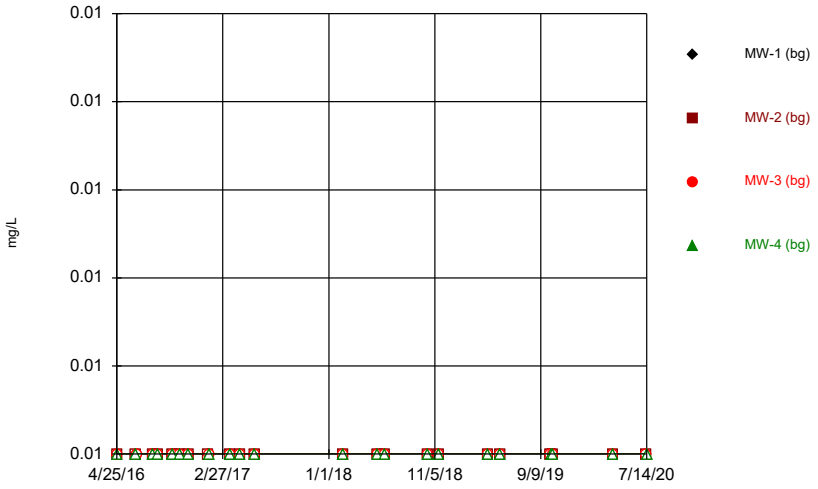
Time Series



Constituent: Mercury Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

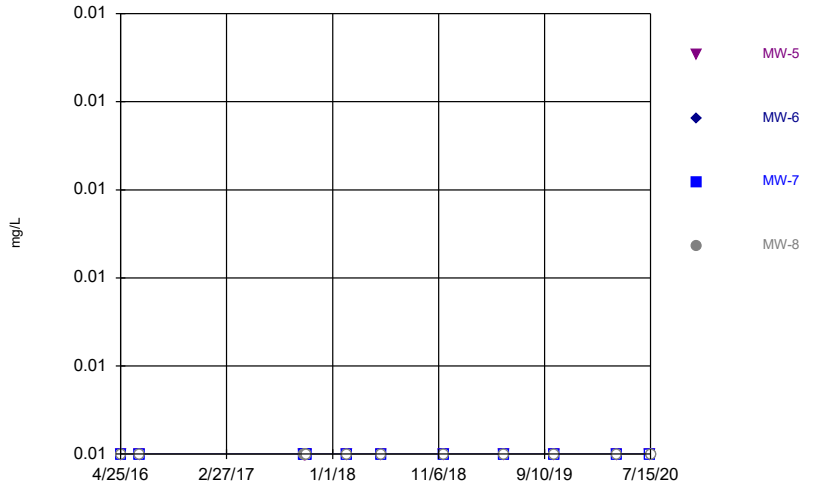
Time Series



Constituent: Molybdenum Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

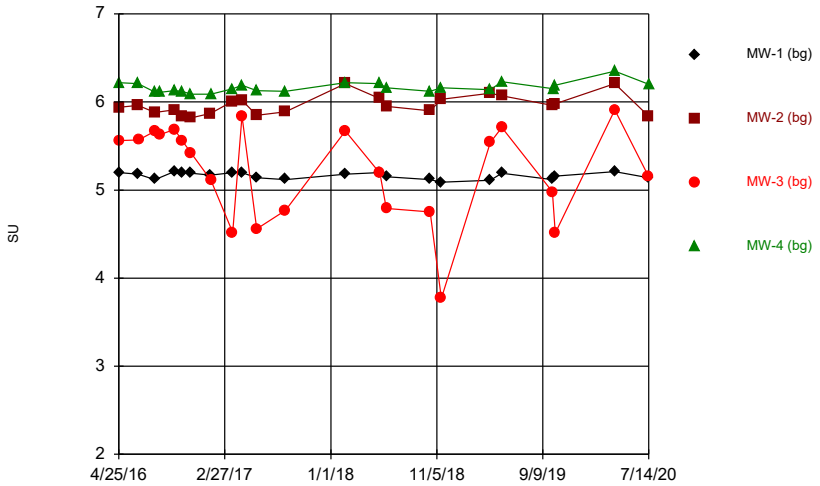
Time Series



Constituent: Molybdenum Analysis Run 10/12/2020 3:01 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

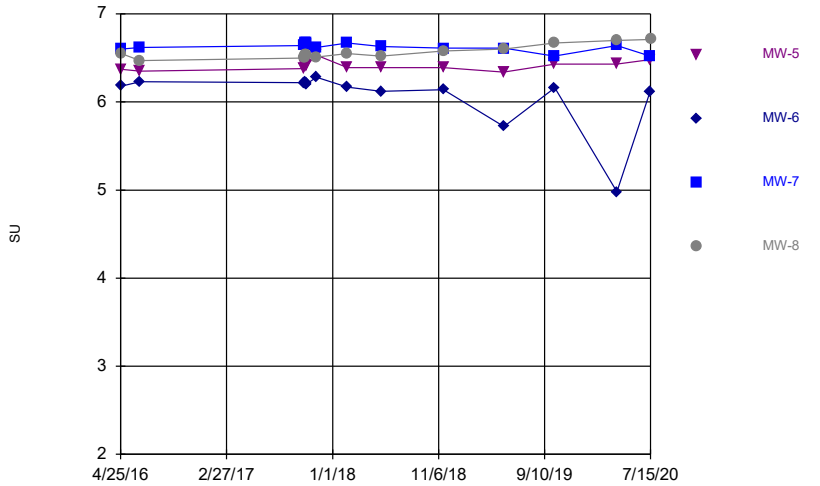


Constituent: pH, Field Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



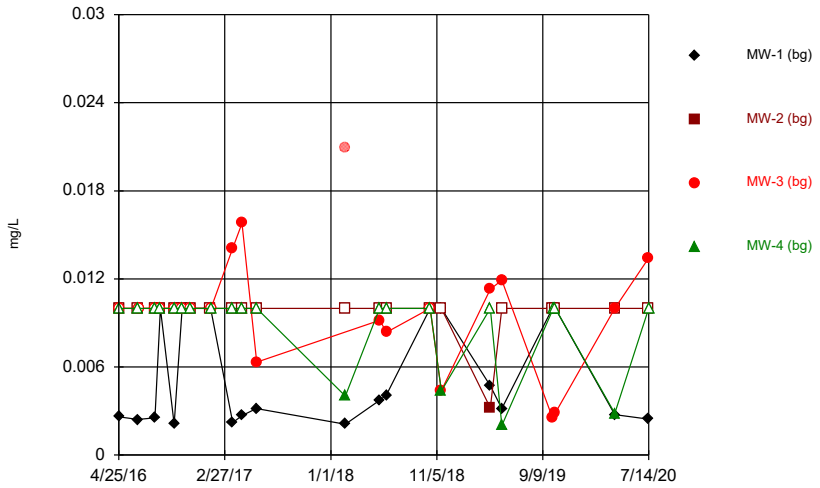
Constituent: pH, Field Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



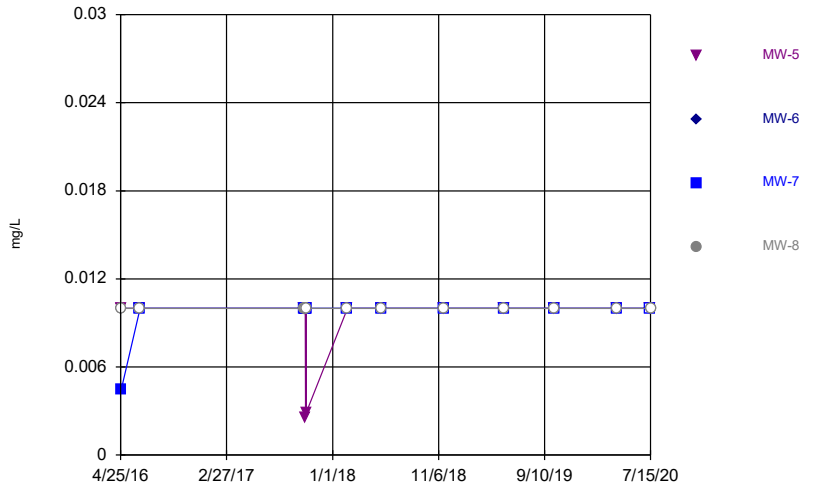
Constituent: Selenium Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

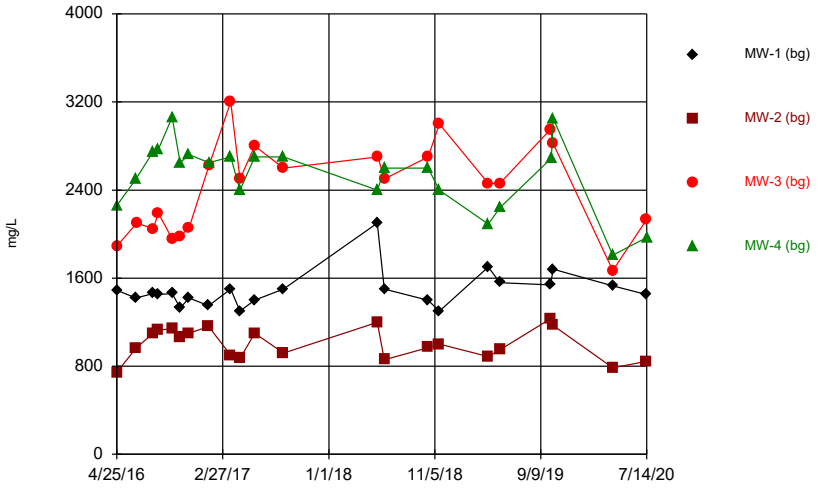


Constituent: Selenium Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

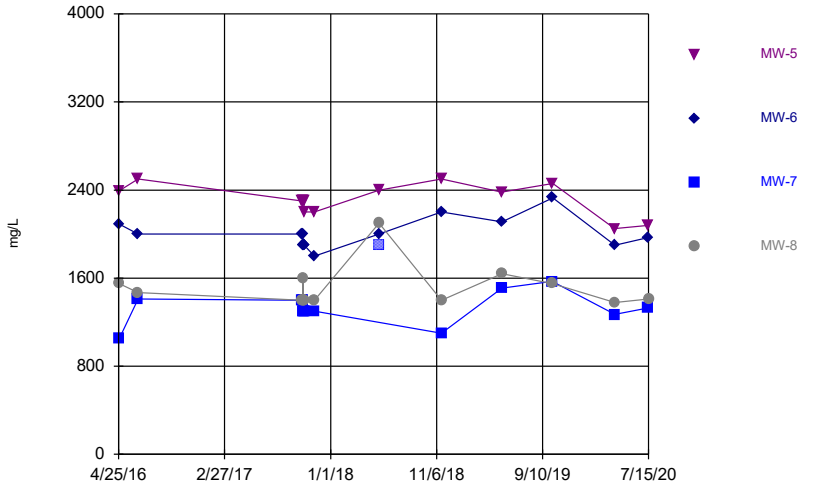


Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

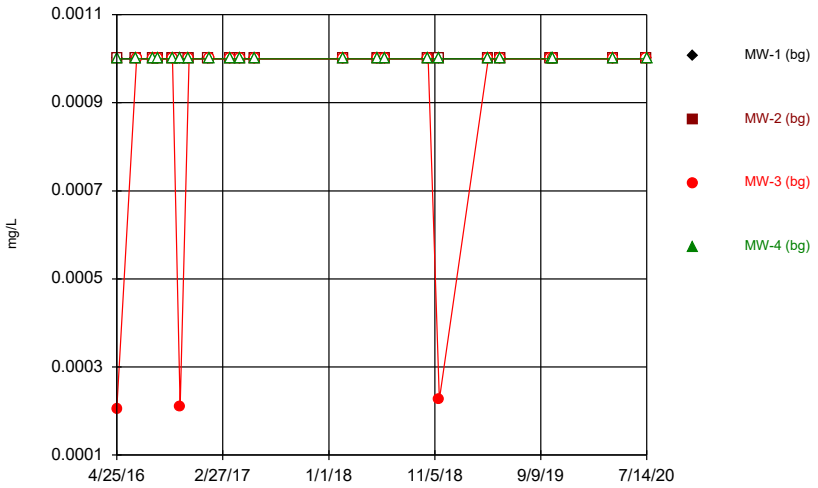


Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

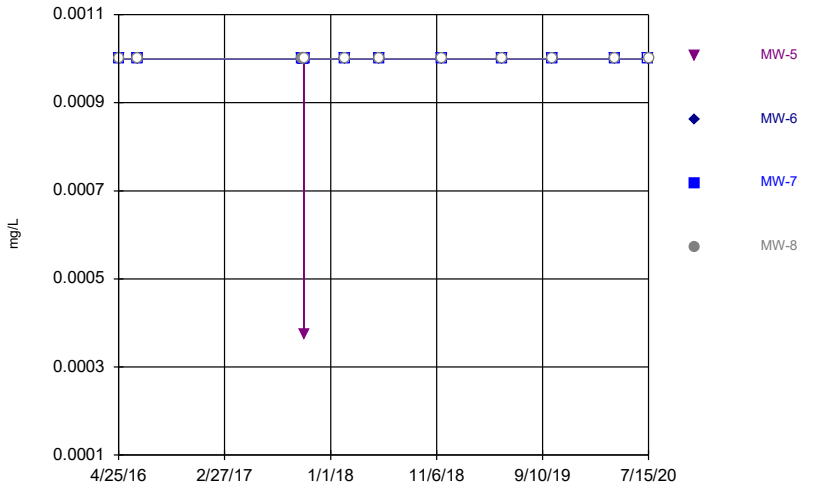


Constituent: Thallium Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

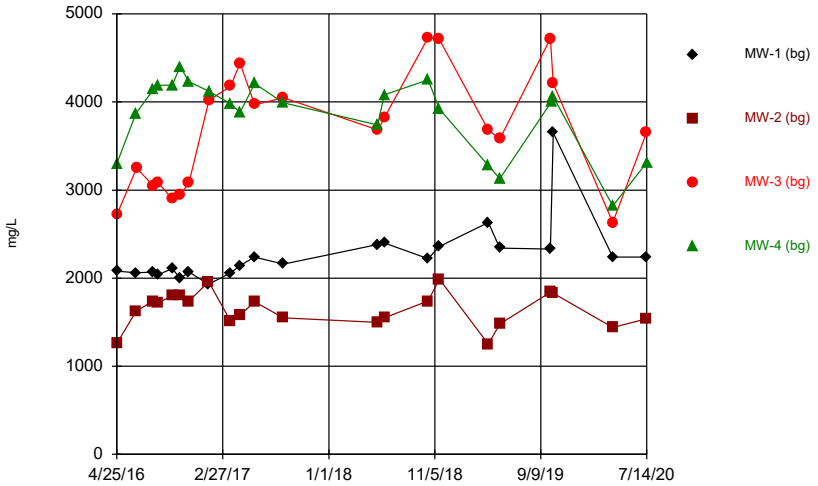
Time Series



Constituent: Thallium Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

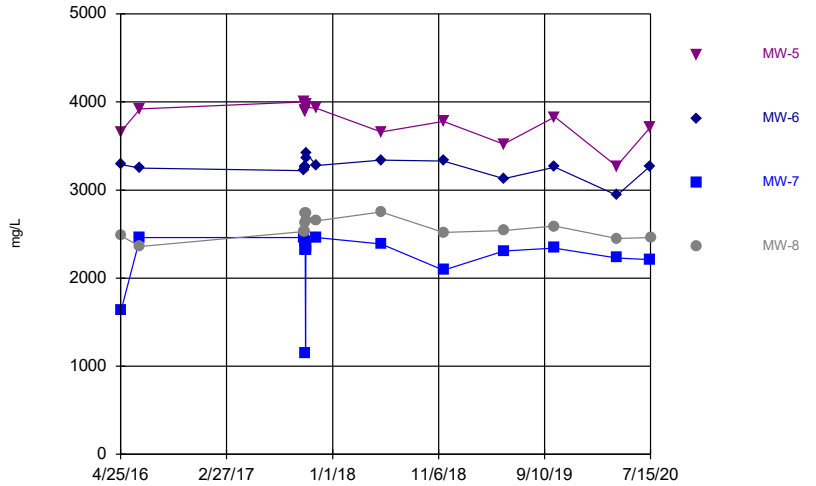


Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:01 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.003	<0.003	<0.003
4/26/2016	<0.003			
6/20/2016	<0.003	<0.003		<0.003
6/22/2016			<0.003	
8/8/2016	<0.003	<0.003		
8/9/2016			<0.003	<0.003
8/24/2016	<0.003	<0.003	<0.003	<0.003
10/3/2016	<0.003	<0.003		<0.003
10/4/2016			<0.003	
10/26/2016	<0.003	<0.003	<0.003	<0.003
11/21/2016	<0.003	<0.003	<0.003	<0.003
1/17/2017	<0.003	<0.003		
1/18/2017			<0.003	<0.003
3/22/2017	<0.003	<0.003	<0.003	<0.003
4/18/2017	<0.003	<0.003	<0.003	<0.003
5/30/2017	<0.003			
5/31/2017		<0.003	<0.003	<0.003
2/13/2018	<0.003	<0.003	<0.003	<0.003
5/22/2018	<0.003	<0.003		
5/23/2018				<0.003
5/24/2018			<0.003	
6/12/2018	<0.003	<0.003	<0.003	<0.003
10/17/2018	<0.003	<0.003	<0.003	<0.003
11/19/2018	<0.003	<0.003	<0.003	<0.003
4/10/2019	0.00143 (J)	0.000993 (J)	0.000978 (J)	0.00097 (J)
5/14/2019	0.00137 (J)	0.000989 (J)	<0.003	<0.003
10/8/2019	<0.003	<0.003	<0.003	
10/10/2019				<0.003
10/16/2019	<0.003	<0.003	<0.003	<0.003
4/6/2020	<0.003	<0.003	<0.003	<0.003
7/13/2020	<0.003	<0.003	<0.003	
7/14/2020				<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.003			
4/27/2016		<0.003	<0.003	<0.003
6/21/2016	<0.003	<0.003	<0.003	<0.003
10/12/2017	<0.003	<0.003	<0.003	<0.003
10/13/2017	<0.003	<0.003	<0.003	<0.003
10/14/2017	<0.003	<0.003	<0.003	<0.003
10/15/2017	<0.003	<0.003	<0.003	<0.003
10/16/2017	<0.003	<0.003	<0.003	<0.003
10/17/2017	<0.003	<0.003	<0.003	<0.003
2/14/2018	<0.003	<0.003	<0.003	<0.003
5/23/2018	<0.003	<0.003	<0.003	<0.003
11/20/2018	<0.003	<0.003	<0.003	<0.003
5/14/2019	<0.003			
5/15/2019		<0.003	<0.003	<0.003
10/8/2019			<0.003	
10/9/2019				<0.003
10/10/2019	<0.003	<0.003		
4/7/2020	<0.003			
4/8/2020		<0.003	<0.003	<0.003
7/14/2020	<0.003	<0.003	<0.003	
7/15/2020				<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.005	<0.005	<0.005
4/26/2016	<0.005			
6/20/2016	<0.005	<0.005		<0.005
6/22/2016			<0.005	
8/8/2016	<0.005	<0.005		
8/9/2016			<0.005	<0.005
8/24/2016	<0.005	<0.005	<0.005	<0.005
10/3/2016	<0.005	<0.005		<0.005
10/4/2016			<0.005	
10/26/2016	<0.005	<0.005	<0.005	<0.005
11/21/2016	<0.005	0.00111 (J)	<0.005	<0.005
1/17/2017	<0.005	<0.005		
1/18/2017			<0.005	<0.005
3/22/2017	<0.005	<0.005	0.00122 (J)	<0.005
4/18/2017	<0.005	<0.005	<0.005	<0.005
5/30/2017	<0.005			
5/31/2017		<0.005	<0.005	<0.005
2/13/2018	<0.005	<0.005	<0.005	<0.005
5/22/2018	<0.005	<0.005		
5/23/2018				<0.005
5/24/2018			<0.005	
6/12/2018	<0.005	<0.005	0.00103 (J)	<0.005
10/17/2018	<0.005	<0.005	0.00133 (J)	<0.005
11/19/2018	<0.005	<0.005	0.0012 (J)	<0.005
4/10/2019	<0.005	<0.005	<0.005	<0.005
5/14/2019	<0.005	<0.005	<0.005	<0.005
10/8/2019	<0.005	<0.005	0.0048 (J)	
10/10/2019				<0.005
10/16/2019	<0.005	<0.005	0.00389 (J)	<0.005
4/6/2020	<0.005	<0.005	<0.005	<0.005
7/13/2020	<0.005	<0.005	0.00316 (J)	
7/14/2020				<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	0.00138 (J)			
4/27/2016		0.005	<0.005	<0.005
6/21/2016	<0.005	0.00473 (J)	0.00165 (J)	0.00101 (J)
10/12/2017	<0.005	0.0051	0.00188 (J)	0.00197 (J)
10/13/2017	<0.005	0.00487 (J)	0.00181 (J)	0.00159 (J)
10/14/2017	<0.005	0.00476 (J)	0.00127 (J)	0.00126 (J)
10/15/2017	<0.005	0.00475 (J)	0.00144 (J)	0.00106 (J)
10/16/2017	<0.005	0.00482 (J)	0.00139 (J)	0.00106 (J)
10/17/2017	<0.005	0.0048 (J)	0.00138 (J)	0.00103 (J)
2/14/2018	<0.005	0.00493 (J)	0.00131 (J)	0.00185 (J)
5/23/2018	<0.005	0.0058	0.00155 (J)	0.00157 (J)
11/20/2018	<0.005	0.00542	0.00133 (J)	0.00173 (J)
5/14/2019	0.00153 (J)			
5/15/2019		0.00383 (J)	0.00138 (J)	0.00136 (J)
10/8/2019			0.00145 (J)	
10/9/2019				0.00142 (J)
10/10/2019	<0.005	0.00473 (J)		
4/7/2020	0.00163 (J)			
4/8/2020		0.00232 (J)	0.00136 (J)	0.00102 (J)
7/14/2020	<0.005	0.0048 (J)	0.00147 (J)	
7/15/2020				0.00212 (J)

Time Series

Constituent: Barium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		0.0134	0.00803 (J)	0.0114
4/26/2016	0.00941 (J)			
6/20/2016	0.00951 (J)	0.0165		0.0103
6/22/2016			0.0101	
8/8/2016	0.00991 (J)	0.0162		
8/9/2016			0.00889 (J)	0.0119
8/24/2016	0.00949 (J)	0.0139	0.00962 (J)	0.0118
10/3/2016	0.0105	0.0164		0.0119
10/4/2016			0.00984 (J)	
10/26/2016	0.00931 (J)	0.0138	0.00878 (J)	0.0104
11/21/2016	0.00879 (J)	0.0144	0.00833 (J)	0.0106
1/17/2017	0.00929 (J)	0.0135		
1/18/2017			0.00966 (J)	0.0101
3/22/2017	0.00938 (J)	0.0132	0.00991 (J)	0.0103
4/18/2017	0.00964 (J)	0.012	0.00976 (J)	0.0107
5/30/2017	0.00982 (J)			
5/31/2017		0.0126	0.00866 (J)	0.0104
2/13/2018	0.00937 (J)	0.0127	0.00821 (J)	0.0111
5/22/2018	0.0102	0.0131		
5/23/2018				0.0107
5/24/2018			0.00977 (J)	
6/12/2018	0.0104	0.0138	0.00997 (J)	0.0108
10/17/2018	0.00952 (J)	0.0137	0.0126	0.0119
11/19/2018	0.00915 (J)	0.0115	0.0109	0.0107
4/10/2019	0.0105	0.0111	0.0101	0.0107
5/14/2019	0.00913 (J)	0.0109	0.00922 (J)	0.00949 (J)
10/8/2019	0.0109	0.0151	0.0154	
10/10/2019				0.0116
10/16/2019	0.0106	0.0146	0.0128	0.0125
4/6/2020	0.00971 (J)	0.0125	0.00931 (J)	0.0115
7/13/2020	0.0101	0.0145	0.0142	
7/14/2020				0.0122

Time Series

Constituent: Barium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	0.016			
4/27/2016		0.012	0.0107	0.0108
6/21/2016	0.0112	0.0133	0.0129	0.0116
10/12/2017	0.0122	0.0134	0.014	0.0141
10/13/2017	0.0115	0.0124	0.0147	0.0148
10/14/2017	0.0099 (J)	0.0129	0.0123	0.0134
10/15/2017	0.0103	0.0136	0.0132	0.0139
10/16/2017	0.0101	0.0131	0.0122	0.0129
10/17/2017	0.00968 (J)	0.0126	0.0121	0.0126
2/14/2018	0.0114	0.0142	0.0119	0.0126
5/23/2018	0.0138	0.0145	0.0135	0.0137
11/20/2018	0.0105	0.0127	0.0116	0.0123
5/14/2019	0.0111			
5/15/2019		0.0121	0.0114	0.0122
10/8/2019			0.0145	
10/9/2019				0.0137
10/10/2019	0.0105	0.0152		
4/7/2020	0.0137			
4/8/2020		0.0128	0.0127	0.0137
7/14/2020	0.0124	0.0154	0.0148	
7/15/2020				0.0143

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.003	0.00122 (J)	<0.003
4/26/2016	<0.003			
6/20/2016	<0.003	<0.003		<0.003
6/22/2016			0.00144 (J)	
8/8/2016	<0.003	<0.003		
8/9/2016			0.00331	<0.003
8/24/2016	<0.003	<0.003	0.00308	<0.003
10/3/2016	<0.003	<0.003		<0.003
10/4/2016			0.00129 (J)	
10/26/2016	<0.003	<0.003	0.0071	<0.003
11/21/2016	<0.003	<0.003	0.00689	<0.003
1/17/2017	<0.003	<0.003		
1/18/2017			0.0169 (O)	<0.003
3/22/2017	<0.003	<0.003	0.00686	<0.003
4/18/2017	<0.003	<0.003	<0.003	<0.003
5/30/2017	<0.003			
5/31/2017		<0.003	0.00547	<0.003
2/13/2018	<0.003	<0.003	<0.003	<0.003
5/22/2018	<0.003	<0.003		
5/23/2018				<0.003
5/24/2018			0.00164 (J)	
6/12/2018	<0.003	<0.003	0.00306	<0.003
10/17/2018	<0.003	<0.003	0.0121	<0.003
11/19/2018	<0.003	<0.003	0.0185 (O)	<0.003
4/10/2019	<0.003	<0.003	<0.003	<0.003
5/14/2019	<0.003	<0.003	<0.003	<0.003
10/8/2019	<0.003	<0.003	0.0084	
10/10/2019				<0.003
10/16/2019	<0.003	<0.003	0.0103	<0.003
4/6/2020	<0.003	<0.003	<0.003	<0.003
7/13/2020	<0.003	<0.003	0.0021 (J)	
7/14/2020				<0.003

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.003			
4/27/2016		<0.003	<0.003	<0.003
6/21/2016	<0.003	<0.003	<0.003	<0.003
10/12/2017	<0.003	<0.003	<0.003	<0.003
10/13/2017	<0.003	<0.003	<0.003	<0.003
10/14/2017	<0.003	<0.003	<0.003	<0.003
10/15/2017	<0.003	<0.003	<0.003	<0.003
10/16/2017	<0.003	<0.003	<0.003	<0.003
10/17/2017	<0.003	<0.003	<0.003	<0.003
2/14/2018	<0.003	<0.003	<0.003	<0.003
5/23/2018	<0.003	<0.003	<0.003	<0.003
11/20/2018	<0.003	<0.003	<0.003	<0.003
5/14/2019	<0.003			
5/15/2019		0.000677 (J)	<0.003	<0.003
10/8/2019			<0.003	
10/9/2019				<0.003
10/10/2019	<0.003	<0.003		
4/7/2020	<0.003			
4/8/2020		0.000788 (J)	<0.003	<0.003
7/14/2020	<0.003	<0.003	<0.003	
7/15/2020				<0.003

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		0.0241 (J)	0.028 (J)	0.0414 (J)
4/26/2016	0.0231 (J)			
6/20/2016	0.0227 (J)	0.0284 (J)		0.0434 (J)
6/22/2016			0.0433 (J)	
8/8/2016	0.0278 (J)	0.034 (J)		
8/9/2016			0.0429 (J)	0.0453 (J)
8/24/2016	0.0247 (J)	0.0316 (J)	0.0431 (J)	0.0451 (J)
10/3/2016	0.0307 (J)	0.0367 (J)		0.0511 (J)
10/4/2016			0.04 (J)	
10/26/2016	0.0241 (J)	0.0331 (J)	0.0375 (J)	0.0507 (J)
11/21/2016	0.0202 (J)	0.035 (J)	0.0406 (J)	0.0458 (J)
1/17/2017	0.0201 (J)	0.0259 (J)		
1/18/2017			0.0548 (J)	0.0445 (J)
3/22/2017	0.0224 (J)	0.0243 (J)	0.0344 (J)	0.0432 (J)
4/18/2017	<0.1	0.0206 (J)	<0.1	0.0409 (J)
5/30/2017	<0.1			
5/31/2017		0.0234 (J)	0.0454 (J)	0.0392 (J)
8/23/2017	0.0253 (J)	0.0267 (J)	0.0425 (J)	0.042 (J)
5/22/2018	0.0224 (J)	0.0251 (J)		
5/23/2018				0.0433 (J)
5/24/2018			0.0339 (J)	
6/12/2018	0.0214 (J)	0.0275 (J)	0.0371 (J)	0.0478 (J)
10/17/2018	0.0216 (J)	0.0321 (J)	0.0596 (J)	0.0468 (J)
11/19/2018	0.0237 (J)	0.0324 (J)	0.0514 (J)	0.0526 (J)
4/10/2019	0.0304 (J)	<0.1	<0.1	0.0438 (J)
5/14/2019	<0.1	<0.1	<0.1	<0.1
10/8/2019	<0.1	0.0371 (J)	0.0537 (J)	
10/10/2019				0.0487 (J)
10/16/2019	0.0385 (J)	0.0419 (J)	0.05 (J)	0.0505 (J)
4/6/2020	<0.1	<0.1	<0.1	0.0428 (J)
7/13/2020	<0.1	<0.1	0.0366 (J)	
7/14/2020				0.0441 (J)

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	0.0301 (J)			
4/27/2016		0.075 (J)	0.253 (O)	0.0662 (J)
6/21/2016	0.0304 (J)	0.0729 (J)	0.0768 (J)	0.0681 (J)
10/12/2017	0.0285 (J)	0.0806 (J)	0.0685 (J)	0.0687 (J)
10/13/2017	0.0287 (J)	0.0803 (J)	0.0674 (J)	0.0831 (J)
10/14/2017	0.0305 (J)	0.0828 (J)	0.0756 (J)	0.0702 (J)
10/15/2017	0.0319 (J)	0.0852 (J)	0.0719 (J)	0.0702 (J)
10/16/2017	0.0304 (J)	0.0858 (J)	0.0726 (J)	0.0707 (J)
10/17/2017	0.036 (J)	0.0846 (J)	0.0716 (J)	0.0695 (J)
11/16/2017	0.0377 (J)	0.0772 (J)	0.0644 (J)	0.0675 (J)
5/23/2018	0.0301 (J)	0.0757 (J)	0.0715 (J)	0.0693 (J)
11/20/2018	0.0357 (J)	0.0915 (J)	0.0772 (J)	0.0771 (J)
5/14/2019	<0.1			
5/15/2019		0.0616 (J)	0.0678 (J)	0.0689 (J)
10/8/2019			0.073 (J)	
10/9/2019				0.0723 (J)
10/10/2019	0.0323 (J)	0.0919 (J)		
4/7/2020	0.0399 (J)			
4/8/2020		0.0499 (J)	0.077 (J)	0.0683 (J)
7/14/2020	0.033 (J)	0.0838 (J)	0.0865 (J)	
7/15/2020				0.0723 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.001	0.0121 (O)	<0.001
4/26/2016	0.00196			
6/20/2016	0.0021	<0.001		<0.001
6/22/2016			0.00163	
8/8/2016	0.00206	<0.001		
8/9/2016			0.00122	<0.001
8/24/2016	0.00182	<0.001	<0.001	<0.001
10/3/2016	0.00188	<0.001		<0.001
10/4/2016			0.000689 (J)	
10/26/2016	0.00175	<0.001	0.00136	<0.001
11/21/2016	0.00197	<0.001	0.00171	<0.001
1/17/2017	0.002	0.000311 (J)		
1/18/2017			0.003	<0.001
3/22/2017	0.0019	<0.001	0.00473	<0.001
4/18/2017	0.00159	<0.001	0.00117	<0.001
5/30/2017	0.00214			
5/31/2017		0.000212 (J)	0.00296	<0.001
2/13/2018	0.0018	<0.001	0.00232	<0.001
5/22/2018	0.00201	<0.001		
5/23/2018				<0.001
5/24/2018			0.00459	
6/12/2018	0.00217	<0.001	0.00351	<0.001
10/17/2018	0.00228	<0.001	0.00393	<0.001
11/19/2018	0.00156	<0.001	0.00309	<0.001
4/10/2019	0.00224	<0.001	0.00337	<0.001
5/14/2019	0.00238	<0.001	0.0013	<0.001
10/8/2019	0.00218	<0.001	0.00598	
10/10/2019				<0.001
10/16/2019	0.00225	<0.001	0.00448	<0.001
4/6/2020	0.00184	<0.001	0.000645 (J)	<0.001
7/13/2020	0.00194	<0.001	0.00885 (O)	
7/14/2020				<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.001			
4/27/2016		<0.001	<0.001	<0.001
6/21/2016	<0.001	<0.001	<0.001	<0.001
10/12/2017	<0.001	<0.001	<0.001	<0.001
10/13/2017	<0.001	<0.001	<0.001	<0.001
10/14/2017	<0.001	<0.001	<0.001	<0.001
10/15/2017	<0.001	<0.001	<0.001	<0.001
10/16/2017	<0.001	<0.001	<0.001	<0.001
10/17/2017	<0.001	<0.001	<0.001	<0.001
2/14/2018	<0.001	<0.001	<0.001	<0.001
5/23/2018	<0.001	<0.001	<0.001	<0.001
11/20/2018	<0.001	<0.001	<0.001	<0.001
5/14/2019	<0.001			
5/15/2019		0.000858 (J)	<0.001	<0.001
10/8/2019			<0.001	
10/9/2019				<0.001
10/10/2019	<0.001	<0.001		
4/7/2020	<0.001			
4/8/2020		0.00204	<0.001	<0.001
7/14/2020	<0.001	<0.001	<0.001	
7/15/2020				<0.001

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		123	224	261
4/26/2016	147			
6/20/2016	152	168		295
6/22/2016			266	
8/8/2016	150	180		
8/9/2016			260	318
8/24/2016	142	180	274	319
10/3/2016	139	184		293
10/4/2016			243	
10/26/2016	133	171	254	311
11/21/2016	144	179	263	320
1/17/2017	131	188		
1/18/2017			431	417
3/22/2017	141	155	318	292
4/18/2017	149	156	296	302
5/30/2017	140			
5/31/2017		151	306	284
8/23/2017	152	155	298	297
5/22/2018	166	172		
5/23/2018				296
5/24/2018			297	
6/12/2018	203	179	318	355
10/17/2018	171	200	392	342
11/19/2018	154	221	387	289
4/10/2019	243	200	348	356
5/14/2019	167	168	254	254
10/8/2019	157	190	371	
10/10/2019				302
10/16/2019	157	194	346	356
4/6/2020	149	152	177	222
7/13/2020	147	163	264	
7/14/2020				259

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	399			
4/27/2016		411	198	282
6/21/2016	295	318	327	291
10/12/2017	394	421	317	300
10/13/2017	389	396	302	298
10/14/2017	391	400	283	299
10/15/2017	332	378	294	307
10/16/2017	380	402	284	299
10/17/2017	377	373	294	294
11/16/2017	368	367	299	308
5/23/2018	405	425	321	344
11/20/2018	414	449	306	327
5/14/2019	441			
5/15/2019		345	302	305
10/8/2019			294	
10/9/2019				329
10/10/2019	386	461		
4/7/2020	432			
4/8/2020		242	280	281
7/14/2020	395	406	261	
7/15/2020				280

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		1.9	1.32	1.53
4/26/2016	1.94			
6/20/2016	2.09	3.43		1.85
6/22/2016			1.46	
8/8/2016	2.18	3.31		
8/9/2016			1.35	1.95
8/24/2016	2.22	3.23	1.47	2.07
10/3/2016	2.34	3.21		2.02
10/4/2016			1.59	
10/26/2016	2.34	3.35	1.27	2.07
11/21/2016	2.5	3.34	1.38	2.39
1/17/2017	2.68	3.58		
1/18/2017			1.34	1.9
3/22/2017	3.7	3.4	2	1.5 (J)
4/18/2017	2.4	2.6	2.2	1.6 (J)
5/30/2017	2.6			
5/31/2017		4.4	1.5 (J)	2.1
8/23/2017	2.7	4.4	1.8 (J)	2.3
5/22/2018	2.3	3.2		
5/23/2018				2
5/24/2018			1.6 (J)	
6/12/2018	2.3	3.7	1.4 (J)	1.7 (J)
10/17/2018	1.7 (J)	4.6	<2	1.5 (J)
11/19/2018	1.7 (J)	3	<2	<2
4/10/2019	2.36	1.76	2.25	1.88
5/14/2019	2.28	2.98	2.28	1.82
10/8/2019	2.31	4.26	1.36	
10/10/2019				1.93
10/16/2019	2.42	4.04	1.4	1.92
4/6/2020	2.01	2.43	1.72	1.5
7/13/2020	2.1	4.05	1.34	
7/14/2020				1.61

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	5.44			
4/27/2016		2.19	1.71	2.34
6/21/2016	6.32	2.56	2.04	2.29
10/12/2017	7.9	3.4	31	150
10/13/2017	8 (B)	3 (B)	32 (B)	130 (B)
10/14/2017	7.4	2.8	33	140
10/15/2017	7.2	1.9 (J)	34	130
10/16/2017	8.1	1.8 (J)	34	140
10/17/2017	7.9	3.1	34	140
11/16/2017	8.1	3.5	35	130
5/23/2018	7	2.6	28	75
11/20/2018	7.4	2.7	20	45
5/14/2019	6.24			
5/15/2019		4.45	15.9	52
10/8/2019			16.8	
10/9/2019				39.2
10/10/2019	7.88	3.61		
4/7/2020	4.83			
4/8/2020		4.63	10.6	24.9
7/14/2020	6.84	3.25	9.68	
7/15/2020				23.8

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.01	0.00373 (J)	<0.01
4/26/2016	<0.01			
6/20/2016	<0.01	<0.01		<0.01
6/22/2016			0.00606 (J)	
8/8/2016	<0.01	<0.01		
8/9/2016			<0.01	<0.01
8/24/2016	<0.01	<0.01	<0.01	<0.01
10/3/2016	<0.01	<0.01		<0.01
10/4/2016			<0.01	
10/26/2016	<0.01	<0.01	<0.01	<0.01
11/21/2016	<0.01	<0.01	<0.01	<0.01
1/17/2017	<0.01	<0.01		
1/18/2017			<0.01	<0.01
3/22/2017	<0.01	<0.01	0.00945 (J)	<0.01
4/18/2017	<0.01	<0.01	0.0105	<0.01
5/30/2017	<0.01			
5/31/2017		<0.01	<0.01	<0.01
2/13/2018	<0.01	<0.01	<0.01	<0.01
5/22/2018	<0.01	<0.01		
5/23/2018				<0.01
5/24/2018			<0.01	
6/12/2018	<0.01	<0.01	<0.01	<0.01
10/17/2018	<0.01	<0.01	<0.01	<0.01
11/19/2018	<0.01	<0.01	<0.01	<0.01
4/10/2019	<0.01	<0.01	<0.01	<0.01
5/14/2019	<0.01	<0.01	<0.01	<0.01
10/8/2019	<0.01	<0.01	<0.01	
10/10/2019				<0.01
10/16/2019	<0.01	<0.01	<0.01	<0.01
4/6/2020	<0.01	<0.01	<0.01	<0.01
7/13/2020	<0.01	<0.01	<0.01	
7/14/2020				<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.01			
4/27/2016		<0.01	<0.01	<0.01
6/21/2016	<0.01	<0.01	<0.01	<0.01
10/12/2017	<0.01	<0.01	<0.01	<0.01
10/13/2017	<0.01	<0.01	<0.01	<0.01
10/14/2017	<0.01	<0.01	<0.01	<0.01
10/15/2017	<0.01	<0.01	<0.01	<0.01
10/16/2017	<0.01	<0.01	<0.01	<0.01
10/17/2017	<0.01	<0.01	<0.01	<0.01
2/14/2018	<0.01	<0.01	<0.01	<0.01
5/23/2018	<0.01	<0.01	<0.01	<0.01
11/20/2018	<0.01	<0.01	<0.01	<0.01
5/14/2019	<0.01			
5/15/2019		<0.01	<0.01	<0.01
10/8/2019			<0.01	
10/9/2019				<0.01
10/10/2019	<0.01	<0.01		
4/7/2020	<0.01			
4/8/2020		<0.01	<0.01	<0.01
7/14/2020	<0.01	<0.01	<0.01	
7/15/2020				<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		0.0487	0.232	<0.005
4/26/2016	0.0343			
6/20/2016	0.0413	0.0767		<0.005
6/22/2016			0.332	
8/8/2016	0.0513	0.103		
8/9/2016			0.311	<0.005
8/24/2016	0.0471	0.093	0.271	<0.005
10/3/2016	0.0525	0.0964		<0.005
10/4/2016			0.148	
10/26/2016	0.0527	0.0904	0.236	<0.005
11/21/2016	0.0569	0.0857	0.241	<0.005
1/17/2017	0.0768	0.0745		
1/18/2017			0.347	<0.005
3/22/2017	0.0535	0.0328	0.271	<0.005
4/18/2017	0.0442	0.0242	0.00324 (J)	<0.005
5/30/2017	0.0465			
5/31/2017		0.0441	0.225	<0.005
2/13/2018	0.062	0.0179	0.00661 (J)	<0.005
5/22/2018	0.0443	0.028		
5/23/2018				<0.005
5/24/2018			0.158	
6/12/2018	0.0512	0.0366	0.291	<0.005
10/17/2018	0.0751	0.0745	0.49	<0.005
11/19/2018	0.0825	0.0225	0.386	<0.005
4/10/2019	0.0445	0.0152	0.0144	<0.005
5/14/2019	0.0485	0.0222	0.00536	<0.005
10/8/2019	0.0778	0.0674	1.07	
10/10/2019				<0.005
10/16/2019	0.08	0.073	0.848	<0.005
4/6/2020	0.0417	0.0116	<0.005	<0.005
7/13/2020	0.0532	0.0405	0.47	
7/14/2020				<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	0.00287 (J)			
4/27/2016		0.0287	<0.005	0.00436 (J)
6/21/2016	0.00228 (J)	0.0269	<0.005	0.00484 (J)
10/12/2017	<0.005	0.0279	0.00269 (J)	0.005 (J)
10/13/2017	<0.005	0.0271	0.00341 (J)	0.0052 (J)
10/14/2017	<0.005	0.0296	0.00451 (J)	0.00513 (J)
10/15/2017	0.00203 (J)	0.0303	0.00371 (J)	0.00518 (J)
10/16/2017	<0.005	0.0274	0.00371 (J)	0.00453 (J)
10/17/2017	<0.005	0.0274	0.0035 (J)	0.00463 (J)
2/14/2018	<0.005	0.0305	<0.005	0.00441 (J)
5/23/2018	<0.005	0.0409	<0.005	0.00466 (J)
11/20/2018	<0.005	0.0327	0.00306 (J)	0.00551
5/14/2019	<0.005			
5/15/2019		0.265	0.00234 (J)	0.00643
10/8/2019			0.00408 (J)	
10/9/2019				0.00864
10/10/2019	<0.005	0.0425		
4/7/2020	<0.005			
4/8/2020		0.479	0.00394 (J)	0.00762
7/14/2020	<0.005	0.0916	0.00653	
7/15/2020				0.00821

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016			0.484 (U)	0.434 (U)
4/26/2016	0.622			
5/5/2016		-0.0718 (U)		
6/20/2016	0.159 (U)	0.295 (U)		0.287 (U)
6/22/2016			0.2 (U)	
8/8/2016	0.511 (U)	0.231 (U)		
8/9/2016			0.378 (U)	0.516 (U)
8/24/2016	0.566 (U)	0.65	0.131 (U)	0.266 (U)
10/3/2016	0.537 (U)	0.845		0.59 (U)
10/4/2016			0.514 (U)	
10/26/2016	0.636	0.994	0.755	0.164 (U)
11/21/2016	0.807	0.537 (U)	0.7	0.296 (U)
1/17/2017	0.308 (U)	-0.0159 (U)		
1/18/2017			0.606	0.0267 (U)
3/22/2017	0.344 (U)	0.279 (U)	0.927	0.132 (U)
4/18/2017	0.934	0.32 (U)	0.334 (U)	-0.0439 (U)
5/30/2017	0.149 (U)			
5/31/2017		0.178 (U)	0.8	0.3 (U)
2/13/2018	0.774	0.804	0.649	0.69
5/22/2018	-0.091 (U)	0.0077 (U)		
5/23/2018				0.186 (U)
5/24/2018			0.448 (U)	
6/12/2018	1.18	-0.315 (U)	0.234 (U)	0.153 (U)
10/17/2018	0.553 (U)	0.574 (U)	0.852	0.313 (U)
11/19/2018	0.862 (D)	0.654 (D)	0.521 (D)	0.794 (D)
5/14/2019	0.509	0.579	0.176 (U)	0.352 (U)
10/8/2019	1.47	0.493 (U)	0.833 (U)	
10/10/2019				1.02 (U)
10/16/2019	0.204 (U)	0.046 (U)	0.0279 (U)	0.356 (U)
4/6/2020	0.309 (U)	0.212 (U)	0.569 (U)	0.459 (U)
7/13/2020	0.219 (U)	0.0814 (U)	0.53	
7/14/2020				0.169 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	0.611			
4/27/2016		0.956	0.374 (U)	-0.207 (U)
6/21/2016	0.304 (U)	0.748	0.151 (U)	0.529
10/12/2017	0.627 (U)	0.564 (U)	0.182 (U)	0.267 (U)
10/13/2017	0.391 (U)	1.36 (U)	0.517 (U)	0.873 (U)
10/14/2017	1.2 (U)	1.59 (U)	0.43 (U)	1.6 (U)
10/15/2017	0.806 (U)	1.22 (U)	0.45 (U)	0.327 (U)
10/16/2017	0.564 (U)	1.57 (U)	0.55 (U)	0.524 (U)
10/17/2017	0.178 (U)	0.631 (U)	0.474 (U)	0.0455 (U)
2/14/2018	0.955	0.969	0.736	0.633
5/23/2018	0.543	0.918	0.0192 (U)	0.377 (U)
11/20/2018	0.687	1.15	0.494	0.28 (U)
5/14/2019	0.663			
5/15/2019		1.56	0.61	0.697
10/8/2019			0.345 (U)	
10/9/2019				0.416 (U)
10/10/2019	0.811 (U)	1.71		
4/7/2020	0.48 (U)			
4/8/2020		0.179 (U)	0.237 (U)	1.38 (U)
7/14/2020	0.521	0.578	0.434	
7/15/2020				0.398 (U)

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		0.149 (J)	0.243 (J)	0.372
4/26/2016	0.146 (J)			
6/20/2016	0.148 (J)	0.148 (J)		0.361
6/22/2016			0.269 (J)	
8/8/2016	0.137 (J)	0.134 (J)		
8/9/2016			0.363	0.326
8/24/2016	0.133 (J)	0.129 (J)	0.346	0.329
10/3/2016	0.103 (J)	0.086 (J)		0.287 (J)
10/4/2016			0.266 (J)	
10/26/2016	0.05 (J)	0.027 (J)	0.266 (J)	0.194 (J)
11/21/2016	0.047 (J)	0.027 (J)	0.244 (J)	0.192 (J)
1/17/2017	0.09 (J)	0.066 (J)		
1/18/2017			0.385	0.223 (J)
3/22/2017	0.12	0.13	0.41	0.32
4/18/2017	0.12	0.16	0.29	0.32
5/30/2017	0.13			
5/31/2017		0.13	0.37	0.31
8/23/2017	0.16	0.16	0.55	0.38
2/13/2018	0.14 (D)	0.22 (D)	0.27 (D)	0.38 (D)
5/22/2018	0.16	0.17		
5/23/2018				0.38
5/24/2018			0.6	
6/12/2018	0.16	0.16	0.53	0.39
10/17/2018	0.18	0.16	0.63	0.39
11/19/2018	0.15	0.18	0.31	0.36
4/10/2019	0.102	0.262	0.273	0.384
5/14/2019	0.119	0.17	0.281	0.335
10/8/2019	0.0924 (J)	0.164	0.225	
10/10/2019				0.304
10/16/2019	0.0756 (J)	0.114	0.106	0.302
4/6/2020	0.101	0.207	0.314	0.368
7/13/2020	0.0678 (J)	0.132	0.13	
7/14/2020				0.33

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	0.307			
4/27/2016		0.131 (J)	0.2 (J)	0.212 (J)
6/21/2016	0.337	0.153 (J)	0.163 (J)	0.211 (J)
10/12/2017	0.35	0.15	0.17	0.22
10/13/2017	0.36	0.15	0.19	0.23
10/14/2017	0.37	0.14	0.2	0.22
10/15/2017	0.37	0.14	0.2	0.22
10/16/2017	0.36	0.14	0.2	0.22
10/17/2017	0.35	0.14	0.19	0.21
11/16/2017	0.37	0.14	0.18	0.22
2/14/2018	0.33 (D)	0.13 (D)	0.18 (D)	0.21 (D)
5/23/2018	0.29	0.13	0.18	0.21
11/20/2018	0.32	0.14	0.19	0.21
5/14/2019	0.22			
5/15/2019		0.133	0.169	0.192
10/8/2019			0.183	
10/9/2019				0.189
10/10/2019	0.338	0.124		
4/7/2020	0.225			
4/8/2020		<0.1	0.153	0.192
7/14/2020	0.263	0.115	0.193	
7/15/2020				0.196

Time Series

Constituent: Lead (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.005	<0.005	<0.005
4/26/2016	<0.005			
6/20/2016	<0.005	<0.005		<0.005
6/22/2016			<0.005	
8/8/2016	<0.005	<0.005		
8/9/2016			<0.005	<0.005
8/24/2016	<0.005	<0.005	<0.005	<0.005
10/3/2016	<0.005	<0.005		<0.005
10/4/2016			<0.005	
10/26/2016	<0.005	<0.005	<0.005	<0.005
11/21/2016	<0.005	<0.005	<0.005	<0.005
1/17/2017	<0.005	<0.005		
1/18/2017			<0.005	<0.005
3/22/2017	<0.005	<0.005	<0.005	<0.005
4/18/2017	<0.005	<0.005	<0.005	<0.005
5/30/2017	<0.005			
5/31/2017		<0.005	<0.005	<0.005
2/13/2018	<0.005	<0.005	<0.005	<0.005
5/22/2018	<0.005	<0.005		
5/23/2018				<0.005
5/24/2018			<0.005	
6/12/2018	<0.005	<0.005	<0.005	<0.005
10/17/2018	<0.005	<0.005	0.00102 (J)	<0.005
11/19/2018	<0.005	<0.005	0.00692	<0.005
4/10/2019	<0.005	<0.005	<0.005	<0.005
5/14/2019	<0.005	<0.005	<0.005	<0.005
10/8/2019	<0.005	<0.005	<0.005	
10/10/2019				<0.005
10/16/2019	<0.005	<0.005	0.00108 (J)	<0.005
4/6/2020	<0.005	<0.005	<0.005	<0.005
7/13/2020	<0.005	<0.005	<0.005	
7/14/2020				<0.005

Time Series

Constituent: Lead (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.005			
4/27/2016		<0.005	<0.005	<0.005
6/21/2016	<0.005	<0.005	<0.005	<0.005
10/12/2017	<0.005	<0.005	<0.005	<0.005
10/13/2017	<0.005	<0.005	<0.005	<0.005
10/14/2017	<0.005	<0.005	<0.005	<0.005
10/15/2017	<0.005	<0.005	<0.005	<0.005
10/16/2017	<0.005	<0.005	<0.005	<0.005
10/17/2017	<0.005	<0.005	<0.005	<0.005
2/14/2018	<0.005	<0.005	<0.005	<0.005
5/23/2018	<0.005	<0.005	<0.005	<0.005
11/20/2018	<0.005	<0.005	<0.005	<0.005
5/14/2019	<0.005			
5/15/2019		<0.005	<0.005	<0.005
10/8/2019			<0.005	
10/9/2019				<0.005
10/10/2019	<0.005	<0.005		
4/7/2020	<0.005			
4/8/2020		<0.005	<0.005	<0.005
7/14/2020	<0.005	<0.005	<0.005	
7/15/2020				<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		0.0353 (J)	0.0964	0.0528
4/26/2016	0.0264 (J)			
6/20/2016	0.0246 (J)	0.0583		0.0554
6/22/2016			0.156	
8/8/2016	0.0229 (J)	0.0627		
8/9/2016			0.122	0.0452 (J)
8/24/2016	0.0236 (J)	0.0651	0.138	0.0488 (J)
10/3/2016	0.0229 (J)	0.0622		0.0476 (J)
10/4/2016			0.0966	
10/26/2016	0.0227 (J)	0.0293 (J)	0.134	0.049 (J)
11/21/2016	0.0236 (J)	0.0667	0.167	0.0477 (J)
1/17/2017	0.0228 (J)	0.0636		
1/18/2017			0.237	0.045 (J)
3/22/2017	0.0238 (J)	0.0464 (J)	0.203	0.0493 (J)
4/18/2017	0.0242 (J)	0.0446 (J)	0.0764	0.0494 (J)
5/30/2017	0.0229 (J)			
5/31/2017		0.0496 (J)	0.218	0.0501
2/13/2018	0.0233 (J)	0.0615	0.0964	0.0446 (J)
5/22/2018	0.0263 (J)	0.0465 (J)		
5/23/2018				0.0513
5/24/2018			0.145	
6/12/2018	0.0251 (J)	0.0472 (J)	0.194	0.0511
10/17/2018	0.025 (J)	0.0633	0.384	0.0532
11/19/2018	0.0241	0.0584	0.323	0.0467
4/10/2019	0.0285	0.0574	0.0905	0.0504
5/14/2019	0.026 (J)	0.0445	0.0828	0.0485
10/8/2019	0.0268	0.0677	0.419	
10/10/2019				0.054
10/16/2019	0.0263	0.0661	0.337	0.052
4/6/2020	0.0278	0.0496	0.0689	0.0519
7/13/2020	0.028	0.0615	0.256	
7/14/2020				0.0543

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	0.0977			
4/27/2016		0.253	0.163	0.171
6/21/2016	0.0972	0.253	0.171	0.181
10/12/2017	0.093	0.249	0.134	0.182
10/13/2017	0.0935	0.249	0.127	0.189
10/14/2017	0.0931	0.244	0.112	0.177
10/15/2017	0.0968	0.259	0.129	0.191
10/16/2017	0.0963	0.259	0.122	0.189
10/17/2017	0.0949	0.249	0.122	0.184
2/14/2018	0.0989	0.242	0.131	0.183
5/23/2018	0.103	0.266	0.129	0.194
11/20/2018	0.102	0.245	0.12	0.181
5/14/2019	0.116			
5/15/2019		0.152	0.127	0.16
10/8/2019			0.131	
10/9/2019				0.163
10/10/2019	0.0981	0.251		
4/7/2020	0.133			
4/8/2020		0.0489	0.117	0.149
7/14/2020	0.11	0.223	0.103	
7/15/2020				0.152

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.0005	<0.0005	<0.0005
4/26/2016	<0.0005			
6/20/2016	<0.0005	<0.0005		<0.0005
6/22/2016			<0.0005	
8/8/2016	<0.0005	<0.0005		
8/9/2016			<0.0005	<0.0005
8/24/2016	<0.0005	<0.0005	<0.0005	<0.0005
10/3/2016	<0.0005	<0.0005		<0.0005
10/4/2016			<0.0005	
10/26/2016	<0.0005	<0.0005	<0.0005	<0.0005
11/21/2016	<0.0005	<0.0005	<0.0005	<0.0005
1/17/2017	<0.0005	<0.0005		
1/18/2017			<0.0005	<0.0005
3/22/2017	<0.0005	<0.0005	<0.0005	<0.0005
4/18/2017	<0.0005	<0.0005	<0.0005	<0.0005
5/30/2017	<0.0005			
5/31/2017		<0.0005	<0.0005	<0.0005
2/13/2018	<0.0005	<0.0005	<0.0005	<0.0005
5/22/2018	<0.0005	<0.0005		
5/23/2018				<0.0005
5/24/2018			<0.0005	
6/12/2018	<0.0005	<0.0005	<0.0005	<0.0005
10/17/2018	<0.0005	<0.0005	<0.0005	<0.0005
11/19/2018	<0.0005	<0.0005	<0.0005	<0.0005
4/10/2019	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005	<0.0005	<0.0005	<0.0005
10/8/2019	<0.0005	<0.0005	<0.0005	
10/10/2019				<0.0005
10/16/2019	<0.0005	<0.0005	<0.0005	<0.0005
4/6/2020	<0.0005	<0.0005	<0.0005	<0.0005
7/13/2020	<0.0005	<0.0005	<0.0005	
7/14/2020				<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.0005			
4/27/2016		<0.0005	<0.0005	<0.0005
6/21/2016	<0.0005	<0.0005	<0.0005	<0.0005
10/12/2017	<0.0005	<0.0005	<0.0005	<0.0005
10/13/2017	<0.0005	<0.0005	<0.0005	<0.0005
10/14/2017	<0.0005	<0.0005	<0.0005	<0.0005
10/15/2017	<0.0005	<0.0005	<0.0005	<0.0005
10/16/2017	<0.0005	<0.0005	<0.0005	<0.0005
10/17/2017	<0.0005	<0.0005	<0.0005	<0.0005
2/14/2018	<0.0005	<0.0005	<0.0005	<0.0005
5/23/2018	<0.0005	<0.0005	<0.0005	<0.0005
11/20/2018	<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019	<0.0005			
5/15/2019		<0.0005	<0.0005	<0.0005
10/8/2019			<0.0005	
10/9/2019				<0.0005
10/10/2019	<0.0005	<0.0005		
4/7/2020	<0.0005			
4/8/2020		<0.0005	<0.0005	<0.0005
7/14/2020	<0.0005	<0.0005	<0.0005	
7/15/2020				<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.01	<0.01	<0.01
4/26/2016	<0.01			
6/20/2016	<0.01	<0.01		<0.01
6/22/2016			<0.01	
8/8/2016	<0.01	<0.01		
8/9/2016			<0.01	<0.01
8/24/2016	<0.01	<0.01	<0.01	<0.01
10/3/2016	<0.01	<0.01		<0.01
10/4/2016			<0.01	
10/26/2016	<0.01	<0.01	<0.01	<0.01
11/21/2016	<0.01	<0.01	<0.01	<0.01
1/17/2017	<0.01	<0.01		
1/18/2017			<0.01	<0.01
3/22/2017	<0.01	<0.01	<0.01	<0.01
4/18/2017	<0.01	<0.01	<0.01	<0.01
5/30/2017	<0.01			
5/31/2017		<0.01	<0.01	<0.01
2/13/2018	<0.01	<0.01	<0.01	<0.01
5/22/2018	<0.01	<0.01		
5/23/2018				<0.01
5/24/2018			<0.01	
6/12/2018	<0.01	<0.01	<0.01	<0.01
10/17/2018	<0.01	<0.01	<0.01	<0.01
11/19/2018	<0.01	<0.01	<0.01	<0.01
4/10/2019	<0.01	<0.01	<0.01	<0.01
5/14/2019	<0.01	<0.01	<0.01	<0.01
10/8/2019	<0.01	<0.01	<0.01	
10/10/2019				<0.01
10/16/2019	<0.01	<0.01	<0.01	<0.01
4/6/2020	<0.01	<0.01	<0.01	<0.01
7/13/2020	<0.01	<0.01	<0.01	
7/14/2020				<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.01			
4/27/2016		<0.01	<0.01	<0.01
6/21/2016	<0.01	<0.01	<0.01	<0.01
10/12/2017	<0.01	<0.01	<0.01	<0.01
10/13/2017	<0.01	<0.01	<0.01	<0.01
10/14/2017	<0.01	<0.01	<0.01	<0.01
10/15/2017	<0.01	<0.01	<0.01	<0.01
10/16/2017	<0.01	<0.01	<0.01	<0.01
10/17/2017	<0.01	<0.01	<0.01	<0.01
2/14/2018	<0.01	<0.01	<0.01	<0.01
5/23/2018	<0.01	<0.01	<0.01	<0.01
11/20/2018	<0.01	<0.01	<0.01	<0.01
5/14/2019	<0.01			
5/15/2019		<0.01	<0.01	<0.01
10/8/2019			<0.01	
10/9/2019				<0.01
10/10/2019	<0.01	<0.01		
4/7/2020	<0.01			
4/8/2020		<0.01	<0.01	<0.01
7/14/2020	<0.01	<0.01	<0.01	
7/15/2020				<0.01

Time Series

Constituent: pH, Field (SU) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		5.94	5.56	6.22
4/26/2016	5.2			
6/20/2016	5.18	5.96		6.21
6/22/2016			5.57	
8/8/2016	5.12	5.88		
8/9/2016			5.67	6.11
8/24/2016			5.63	6.11
10/3/2016	5.21 (D)	5.91 (D)		6.13 (D)
10/4/2016			5.69 (D)	
10/26/2016	5.2	5.84	5.56	6.12
11/21/2016	5.19 (D)	5.82 (D)	5.42 (D)	6.09 (D)
1/17/2017	5.17 (D)	5.87 (D)		
1/18/2017			5.11 (D)	6.09 (D)
3/22/2017	5.2 (D)	6.01 (D)	4.52 (D)	6.15 (D)
4/18/2017	5.2	6.02	5.84	6.19
5/30/2017	5.14 (D)			
5/31/2017		5.85 (D)	4.56 (D)	6.13 (D)
8/23/2017	5.12 (D)	5.89 (D)	4.77 (D)	6.12 (D)
2/13/2018	5.18	6.21	5.67	6.22
5/22/2018	5.2	6.04		
5/23/2018				6.21
5/24/2018			5.19	
6/12/2018	5.15	5.95	4.79	6.16
10/17/2018	5.12	5.9	4.75	6.12
11/19/2018	5.09	6.03	3.77 (E)	6.16
4/10/2019	5.11	6.1	5.54	6.14
5/14/2019	5.19	6.07	5.71	6.23
10/8/2019	5.12	5.96	4.98	
10/10/2019				6.15
10/16/2019	5.16	5.98	4.51	6.19
4/6/2020	5.21	6.21	5.91	6.35
7/13/2020	5.14	5.84	5.16	
7/14/2020				6.2

Time Series

Constituent: pH, Field (SU) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	6.37			
4/27/2016		6.18	6.6	6.55
6/21/2016	6.35	6.23	6.62	6.47
10/12/2017	6.38	6.22	6.64	6.5
10/13/2017	6.43	6.23	6.64	6.51
10/14/2017	6.41	6.22	6.66	6.53
10/15/2017	6.42	6.22	6.67	6.53
10/16/2017	6.42	6.21	6.67	6.54
10/17/2017	6.41	6.2	6.66	6.54
11/16/2017	6.53	6.28	6.62	6.51
2/14/2018	6.39	6.17	6.67	6.55
5/23/2018	6.39	6.12	6.63	6.52
11/20/2018	6.39	6.14	6.61	6.58
5/14/2019	6.34			
5/15/2019		5.72	6.61	6.6
10/8/2019			6.52	
10/9/2019				6.67
10/10/2019	6.43	6.16		
4/7/2020	6.43			
4/8/2020		4.98	6.64	6.7
7/14/2020	6.48	6.12	6.52	
7/15/2020				6.71

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.01	<0.01	<0.01
4/26/2016	0.00261 (J)			
6/20/2016	0.00242 (J)	<0.01		<0.01
6/22/2016			<0.01	
8/8/2016	0.00253 (J)	<0.01		
8/9/2016			<0.01	<0.01
8/24/2016	<0.01	<0.01	<0.01	<0.01
10/3/2016	0.00211 (J)	<0.01		<0.01
10/4/2016			<0.01	
10/26/2016	<0.01	<0.01	<0.01	<0.01
11/21/2016	<0.01	<0.01	<0.01	<0.01
1/17/2017	<0.01	<0.01		
1/18/2017			<0.01	<0.01
3/22/2017	0.0022 (J)	<0.01	0.0141	<0.01
4/18/2017	0.0027 (J)	<0.01	0.0158	<0.01
5/30/2017	0.00316 (J)			
5/31/2017		<0.01	0.00632 (J)	<0.01
2/13/2018	0.00211 (J)	<0.01	0.0209 (O)	0.00403 (J)
5/22/2018	0.00372 (J)	<0.01		
5/23/2018				<0.01
5/24/2018			0.00918 (J)	
6/12/2018	0.00409 (J)	<0.01	0.00836 (J)	<0.01
10/17/2018	<0.01	<0.01	<0.01	<0.01
11/19/2018	<0.01	<0.01	0.00439 (J)	0.00436 (J)
4/10/2019	0.00471 (J)	0.00322 (J)	0.0113	<0.01
5/14/2019	0.00316 (J)	<0.01	0.0119	0.00201 (J)
10/8/2019	<0.01	<0.01	0.00256 (J)	
10/10/2019				<0.01
10/16/2019	<0.01	<0.01	0.00286 (J)	<0.01
4/6/2020	0.00275 (J)	<0.01	0.01	0.00284 (J)
7/13/2020	0.00245 (J)	<0.01	0.0134	
7/14/2020				<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.01			
4/27/2016		<0.01	0.00445 (J)	<0.01
6/21/2016	<0.01	<0.01	<0.01	<0.01
10/12/2017	<0.01	<0.01	<0.01	<0.01
10/13/2017	<0.01	<0.01	<0.01	<0.01
10/14/2017	<0.01	<0.01	<0.01	<0.01
10/15/2017	0.00254 (J)	<0.01	<0.01	<0.01
10/16/2017	<0.01	<0.01	<0.01	<0.01
10/17/2017	0.00288 (J)	<0.01	<0.01	<0.01
2/14/2018	<0.01	<0.01	<0.01	<0.01
5/23/2018	<0.01	<0.01	<0.01	<0.01
11/20/2018	<0.01	<0.01	<0.01	<0.01
5/14/2019	<0.01			
5/15/2019		<0.01	<0.01	<0.01
10/8/2019			<0.01	
10/9/2019				<0.01
10/10/2019	<0.01	<0.01		
4/7/2020	<0.01			
4/8/2020		<0.01	<0.01	<0.01
7/14/2020	<0.01	<0.01	<0.01	
7/15/2020				<0.01

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		745	1890	2260
4/26/2016	1490			
6/20/2016	1420	964		2500
6/22/2016			2100	
8/8/2016	1460	1100		
8/9/2016			2050	2750
8/24/2016	1450	1130	2190	2770
10/3/2016	1460	1140		3060
10/4/2016			1950	
10/26/2016	1330	1060	1980	2650
11/21/2016	1420	1100	2060	2720
1/17/2017	1350	1160		
1/18/2017			2620	2650
3/22/2017	1500	900	3200	2700
4/18/2017	1300	870	2500	2400
5/30/2017	1400			
5/31/2017		1100	2800	2700
8/23/2017	1500	920	2600	2700
5/22/2018	2100	1200		
5/23/2018				2400
5/24/2018			2700	
6/12/2018	1500	860	2500	2600
10/17/2018	1400	970	2700	2600
11/19/2018	1300	1000	3000	2400
4/10/2019	1700	889	2460	2090
5/14/2019	1560	948	2460	2240
10/8/2019	1540	1230	2950	
10/10/2019				2690
10/16/2019	1680	1170	2820	3050
4/6/2020	1530	786	1670	1810
7/13/2020	1450	843	2130	
7/14/2020				1970

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	2390			
4/27/2016		2090	1050	1550
6/21/2016	2500	2000	1410	1470
10/12/2017	2300	2000	1400	1400
10/13/2017	2300	2000	1400	1600
10/14/2017	2300	1900	1300	1400
10/15/2017	2300	1900	1300	1400
10/16/2017	2300	1900	1300	1400
10/17/2017	2200	1900	1300	1400
11/16/2017	2200	1800	1300	1400
5/23/2018	2400	2000	1900 (O)	2100
11/20/2018	2500	2200	1100	1400
5/14/2019	2380			
5/15/2019		2110	1510	1640
10/8/2019			1570	
10/9/2019				1550
10/10/2019	2460	2330		
4/7/2020	2050			
4/8/2020		1900	1270	1380
7/14/2020	2080	1970	1330	
7/15/2020				1410

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.001	0.000205 (J)	<0.001
4/26/2016	<0.001			
6/20/2016	<0.001	<0.001		<0.001
6/22/2016			<0.001	
8/8/2016	<0.001	<0.001		
8/9/2016			<0.001	<0.001
8/24/2016	<0.001	<0.001	<0.001	<0.001
10/3/2016	<0.001	<0.001		<0.001
10/4/2016			<0.001	
10/26/2016	<0.001	<0.001	0.000209 (J)	<0.001
11/21/2016	<0.001	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.001		
1/18/2017			<0.001	<0.001
3/22/2017	<0.001	<0.001	<0.001	<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001
5/30/2017	<0.001			
5/31/2017		<0.001	<0.001	<0.001
2/13/2018	<0.001	<0.001	<0.001	<0.001
5/22/2018	<0.001	<0.001		
5/23/2018				<0.001
5/24/2018			<0.001	
6/12/2018	<0.001	<0.001	<0.001	<0.001
10/17/2018	<0.001	<0.001	<0.001	<0.001
11/19/2018	<0.001	<0.001	0.000226 (J)	<0.001
4/10/2019	<0.001	<0.001	<0.001	<0.001
5/14/2019	<0.001	<0.001	<0.001	<0.001
10/8/2019	<0.001	<0.001	<0.001	
10/10/2019				<0.001
10/16/2019	<0.001	<0.001	<0.001	<0.001
4/6/2020	<0.001	<0.001	<0.001	<0.001
7/13/2020	<0.001	<0.001	<0.001	
7/14/2020				<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	<0.001			
4/27/2016		<0.001	<0.001	<0.001
6/21/2016	<0.001	<0.001	<0.001	<0.001
10/12/2017	<0.001	<0.001	<0.001	<0.001
10/13/2017	<0.001	<0.001	<0.001	<0.001
10/14/2017	<0.001	<0.001	<0.001	<0.001
10/15/2017	<0.001	<0.001	<0.001	<0.001
10/16/2017	0.000375 (J)	<0.001	<0.001	<0.001
10/17/2017	<0.001	<0.001	<0.001	<0.001
2/14/2018	<0.001	<0.001	<0.001	<0.001
5/23/2018	<0.001	<0.001	<0.001	<0.001
11/20/2018	<0.001	<0.001	<0.001	<0.001
5/14/2019	<0.001			
5/15/2019		<0.001	<0.001	<0.001
10/8/2019			<0.001	
10/9/2019				<0.001
10/10/2019	<0.001	<0.001		
4/7/2020	<0.001			
4/8/2020		<0.001	<0.001	<0.001
7/14/2020	<0.001	<0.001	<0.001	
7/15/2020				<0.001

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		1260 (D)	2720 (D)	3300 (D)
4/26/2016	2080 (D)			
6/20/2016	2060 (D)	1620 (D)		3870 (D)
6/22/2016			3250 (D)	
8/8/2016	2070 (D)	1740 (D)		
8/9/2016			3050 (D)	4140 (D)
8/24/2016	2040	1720	3080	4190
10/3/2016	2110 (D)	1800 (D)		4190 (D)
10/4/2016			2900 (D)	
10/26/2016	2000	1800	2940	4400
11/21/2016	2070 (D)	1740 (D)	3090 (D)	4230 (D)
1/17/2017	1930 (D)	1960 (D)		
1/18/2017			4020 (D)	4120 (D)
3/22/2017	2060 (D)	1510 (D)	4180 (D)	3980 (D)
4/18/2017	2140	1580	4440	3880
5/30/2017	2240 (D)			
5/31/2017		1730 (D)	3970 (D)	4210 (D)
8/23/2017	2160 (D)	1550 (D)	4050 (D)	3990 (D)
5/22/2018	2380 (D)	1500 (D)		
5/23/2018				3740 (D)
5/24/2018			3680 (D)	
6/12/2018	2400	1550	3820	4080
10/17/2018	2220	1740	4730	4250
11/19/2018	2360	1990	4710	3920
4/10/2019	2630	1250	3680	3280
5/14/2019	2340 (D)	1480	3580 (D)	3130 (D)
10/8/2019	2330	1840	4720	
10/10/2019				4000
10/16/2019	3650	1830	4210	4060
4/6/2020	2240	1440	2630	2820
7/13/2020	2240	1540	3650	
7/14/2020				3310

Time Series

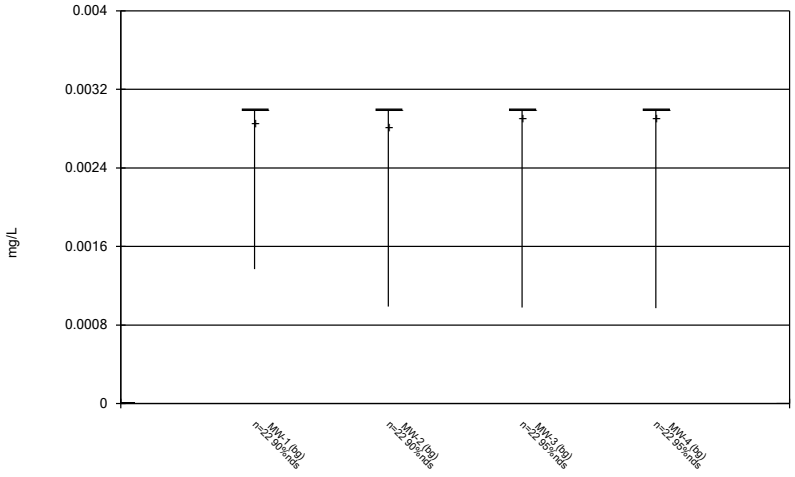
Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-6	MW-7	MW-8
4/25/2016	3660			
4/27/2016		3290	1640	2480
6/21/2016	3920	3250	2460	2360
10/12/2017	4000	3220	2460	2530
10/13/2017	3960	3250	2420	2740
10/14/2017	3910	3260	2320	2630
10/15/2017	3890	3260	1150	2530
10/16/2017	3980	3360	2320	2740
10/17/2017	3940	3420	2360	2650
11/16/2017	3930	3280	2460	2650
5/23/2018	3660	3340	2390	2750
11/20/2018	3780	3330	2090	2520
5/14/2019	3520			
5/15/2019		3130	2310	2540
10/8/2019			2340	
10/9/2019				2590
10/10/2019	3830	3260		
4/7/2020	3270			
4/8/2020		2940	2230	2450
7/14/2020	3710	3270	2210	
7/15/2020				2460

FIGURE B.

Box & Whiskers Plot

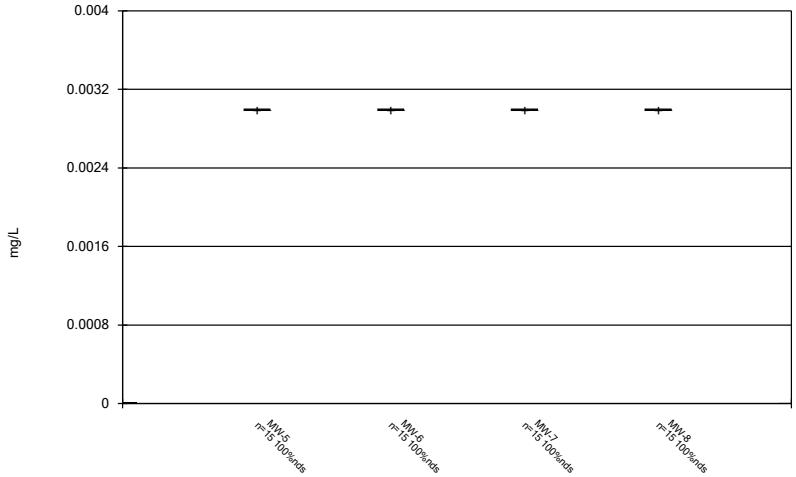


Constituent: Antimony Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

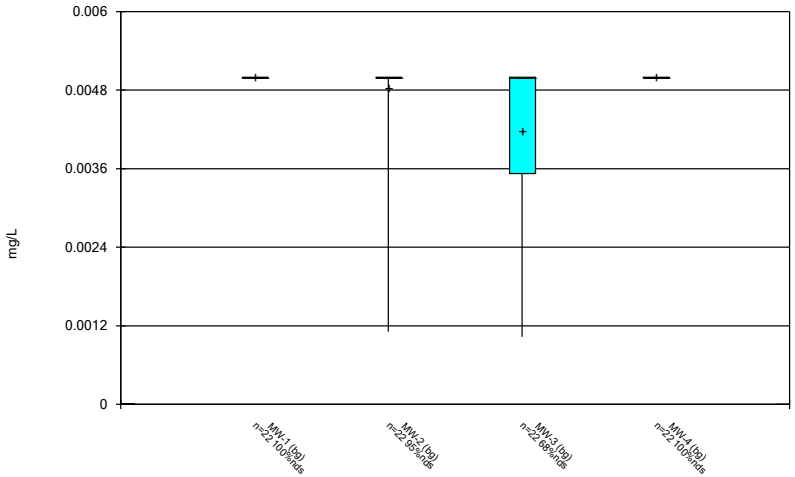


Constituent: Antimony Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

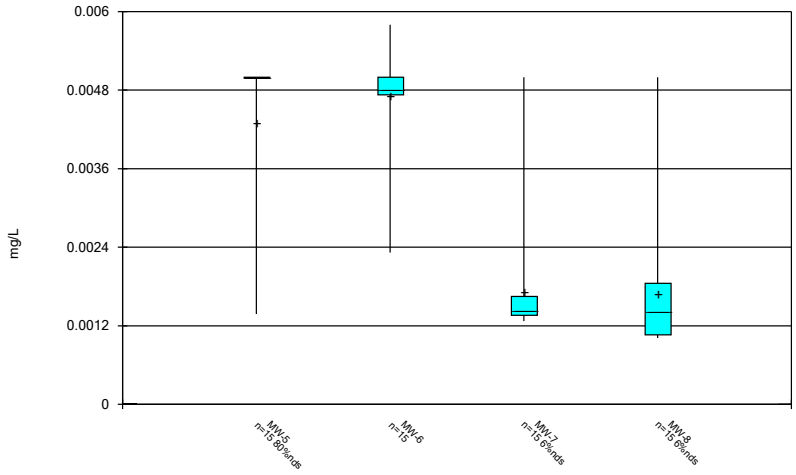


Constituent: Arsenic Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

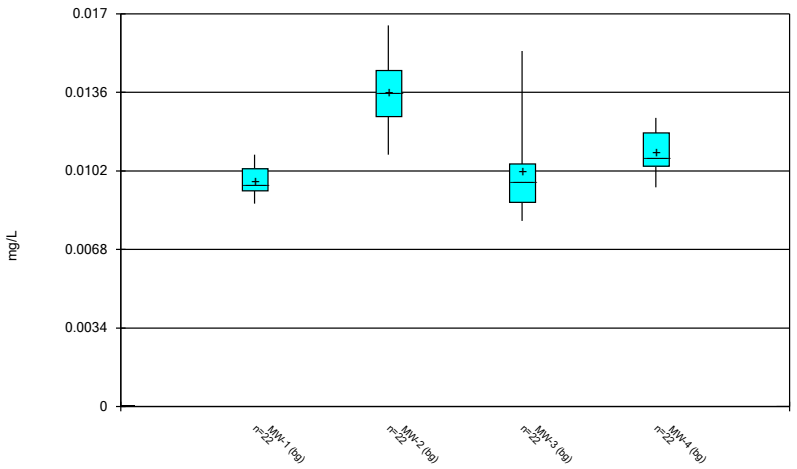
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Box & Whiskers Plot

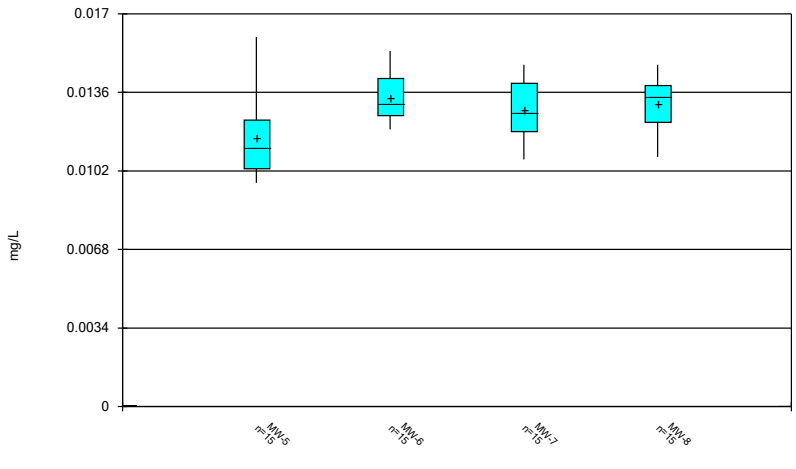


Constituent: Barium Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

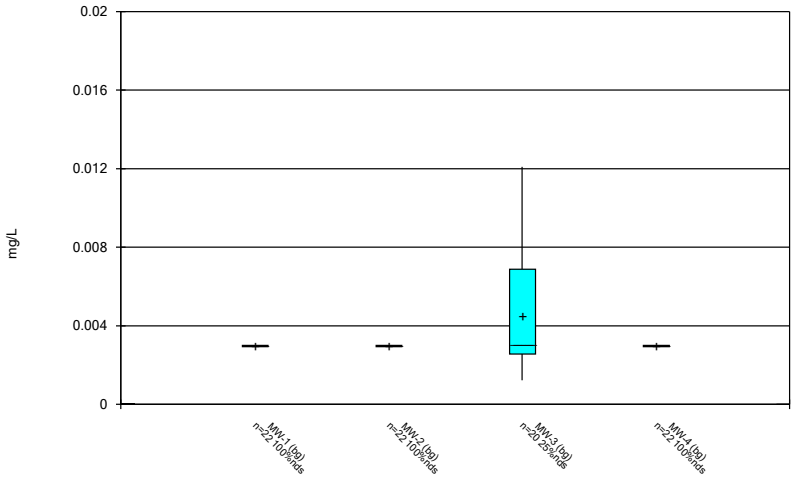


Constituent: Barium Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

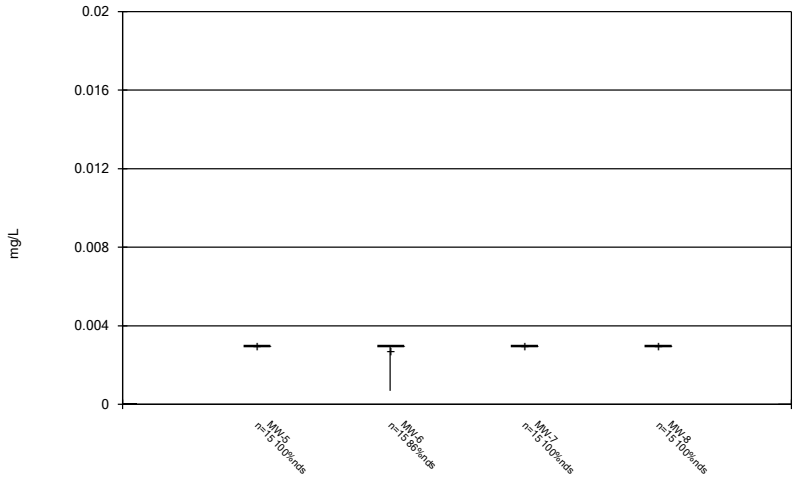


Constituent: Beryllium Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

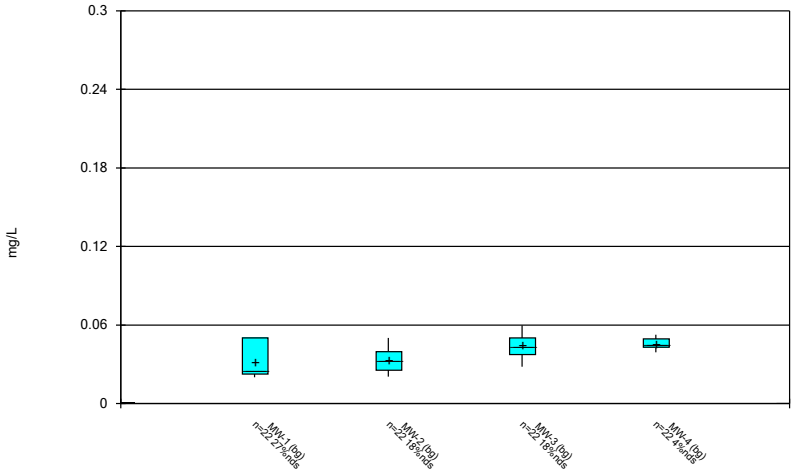
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

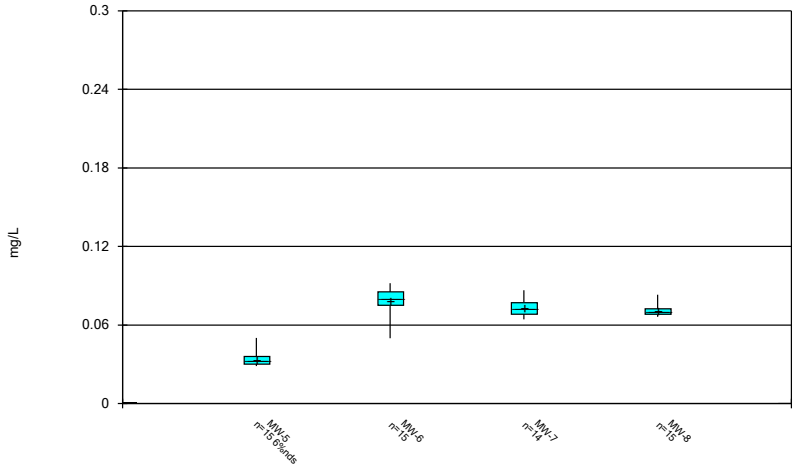
Box & Whiskers Plot



Constituent: Boron, total Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

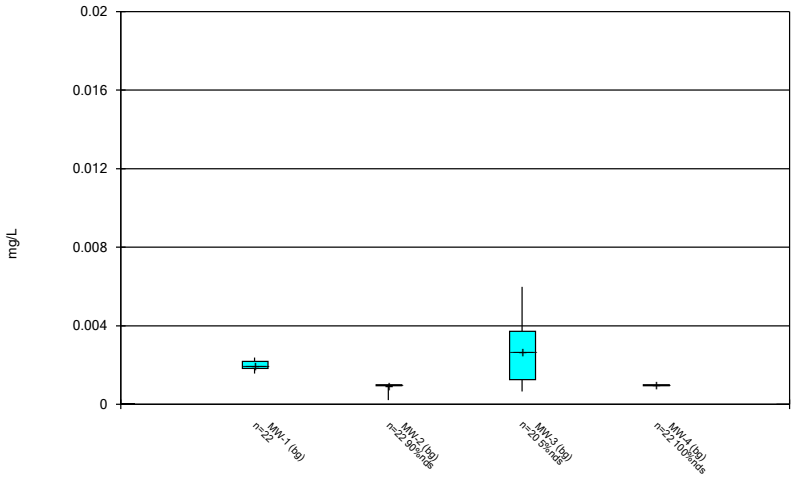
Box & Whiskers Plot



Constituent: Boron, total Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

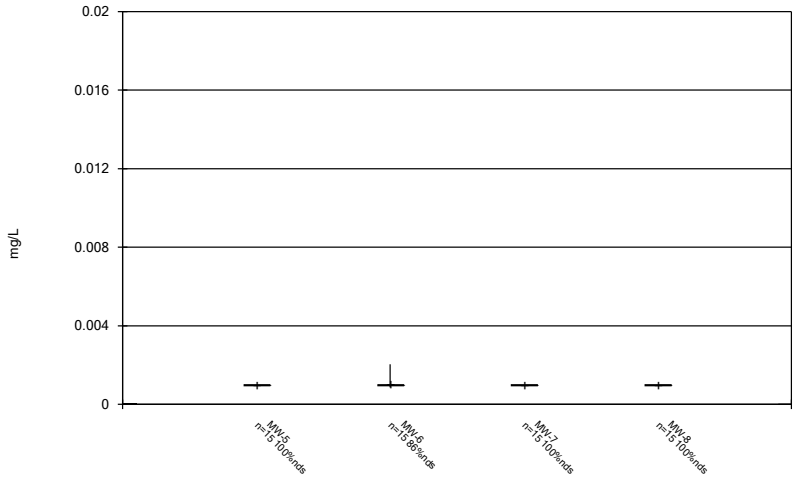
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

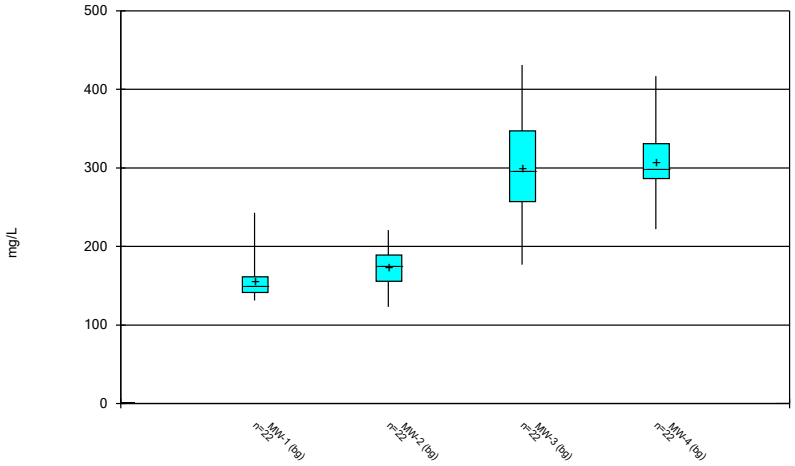
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 10/12/2020 3:03 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

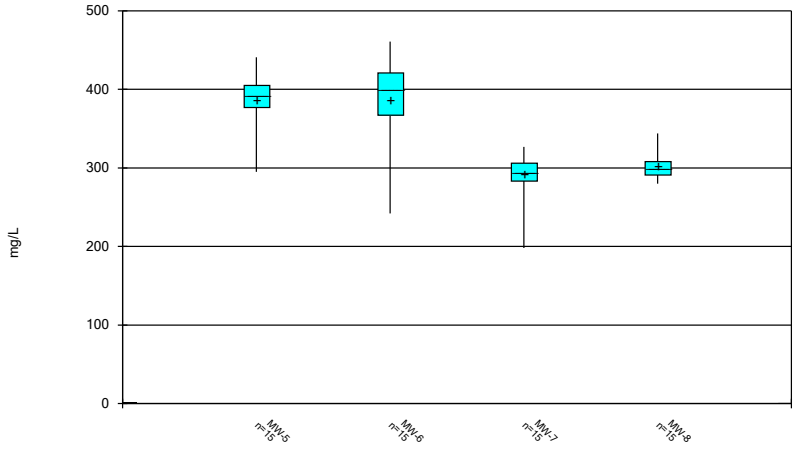
Box & Whiskers Plot



Constituent: Calcium, total Analysis Run 10/12/2020 3:03 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

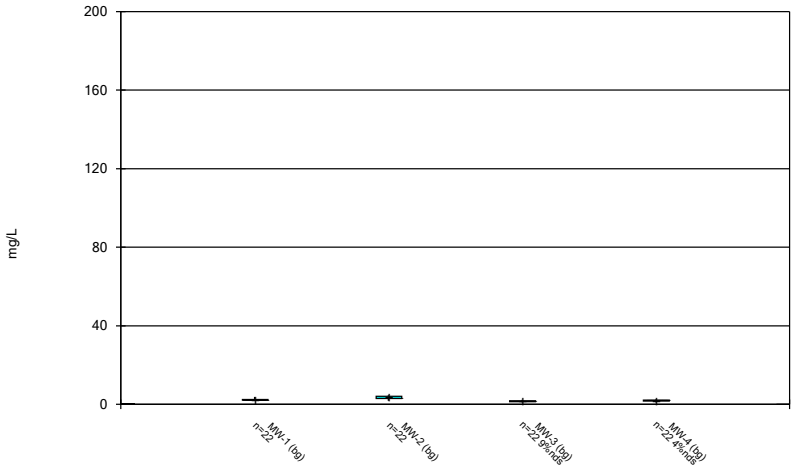
Box & Whiskers Plot



Constituent: Calcium, total Analysis Run 10/12/2020 3:03 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

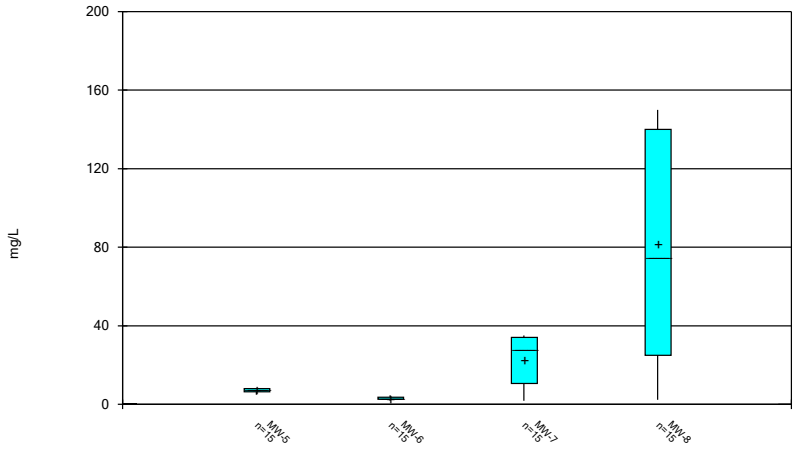
Box & Whiskers Plot



Constituent: Chloride, Total Analysis Run 10/12/2020 3:03 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

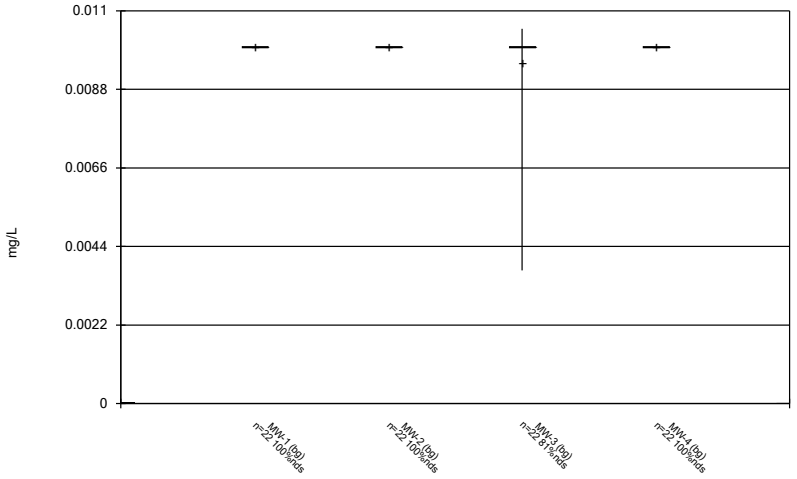
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



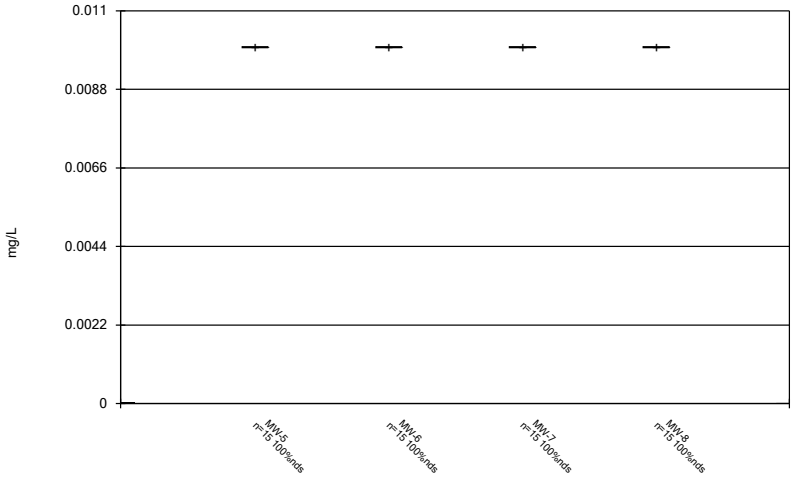
Constituent: Chloride, Total Analysis Run 10/12/2020 3:03 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Box & Whiskers Plot



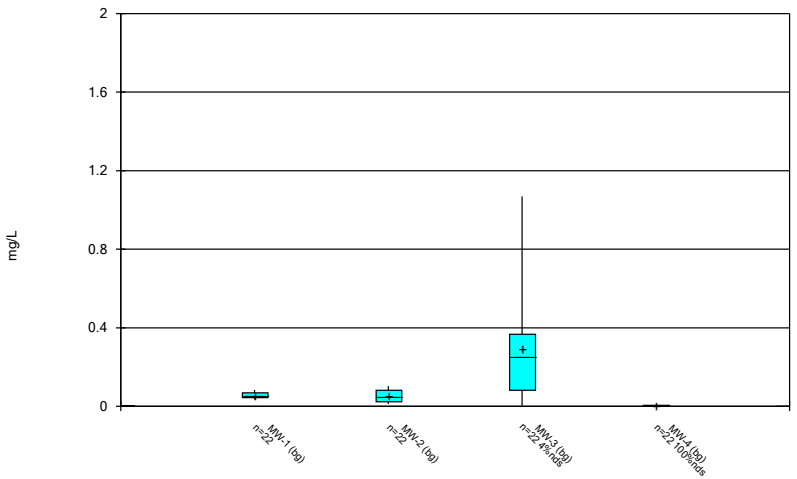
Constituent: Chromium Analysis Run 10/12/2020 3:03 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Box & Whiskers Plot



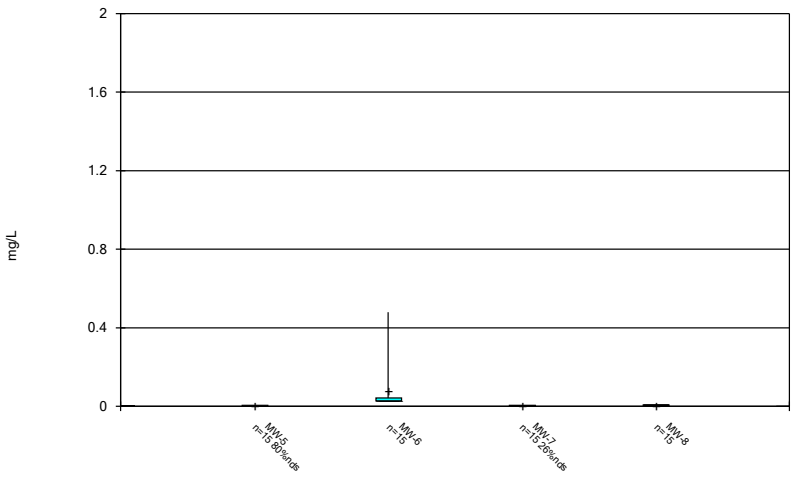
Constituent: Chromium Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Box & Whiskers Plot



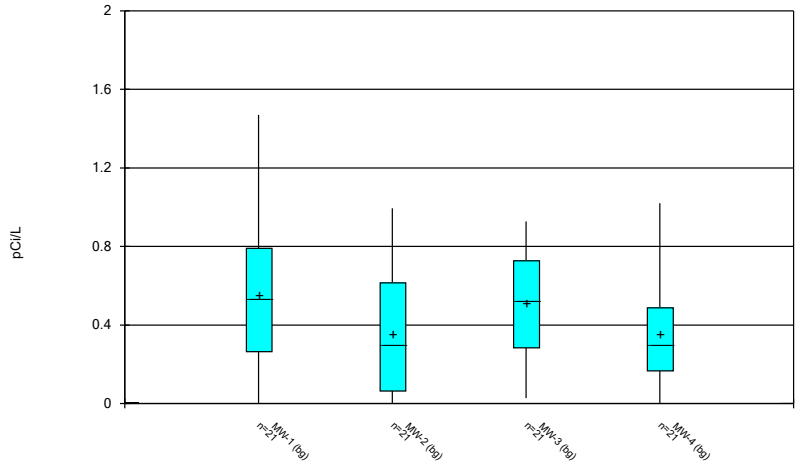
Constituent: Cobalt Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Box & Whiskers Plot



Constituent: Cobalt Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

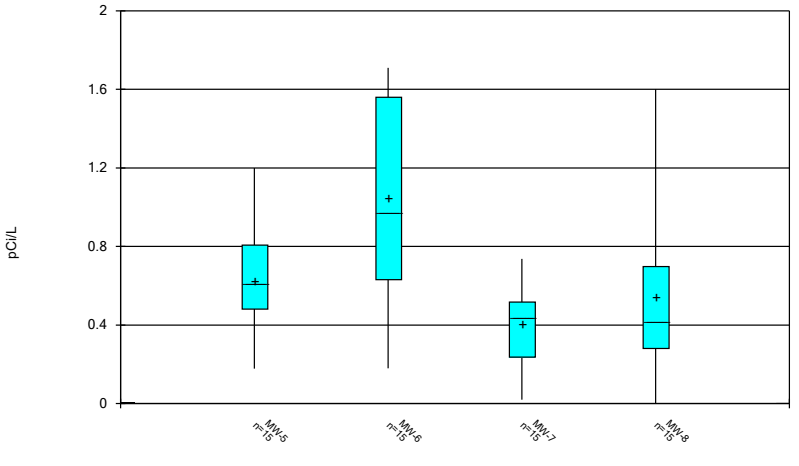
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

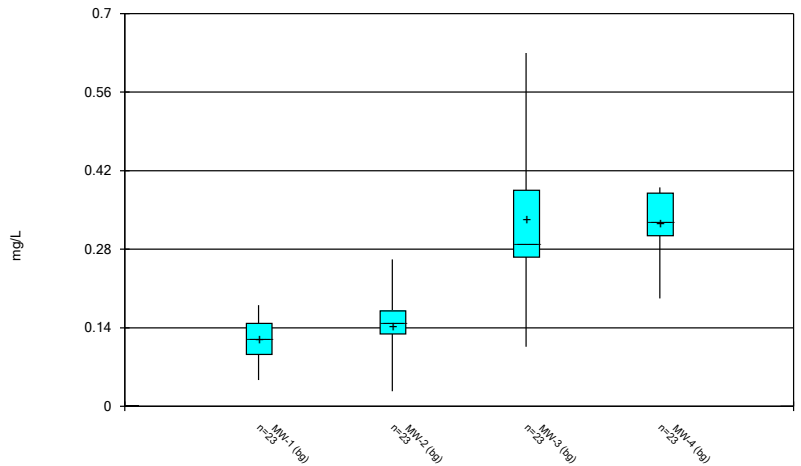
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

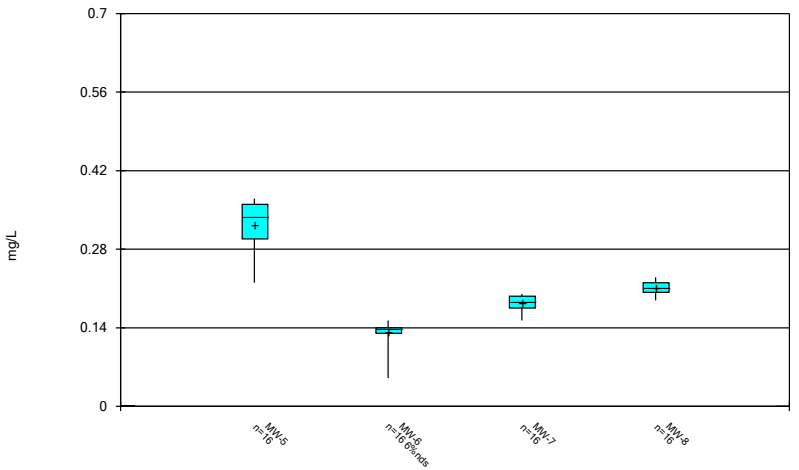
Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

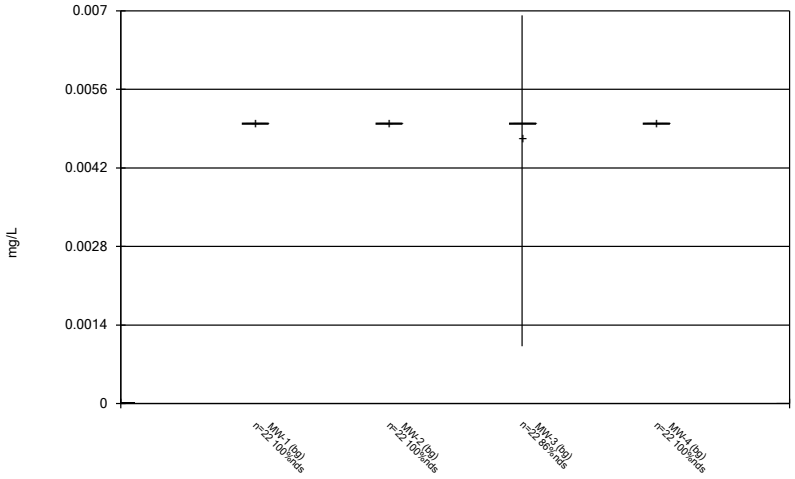
Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

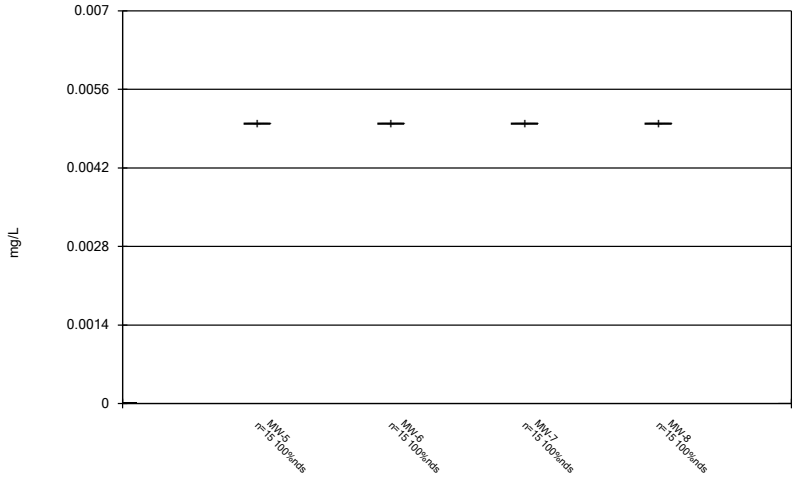


Constituent: Lead Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

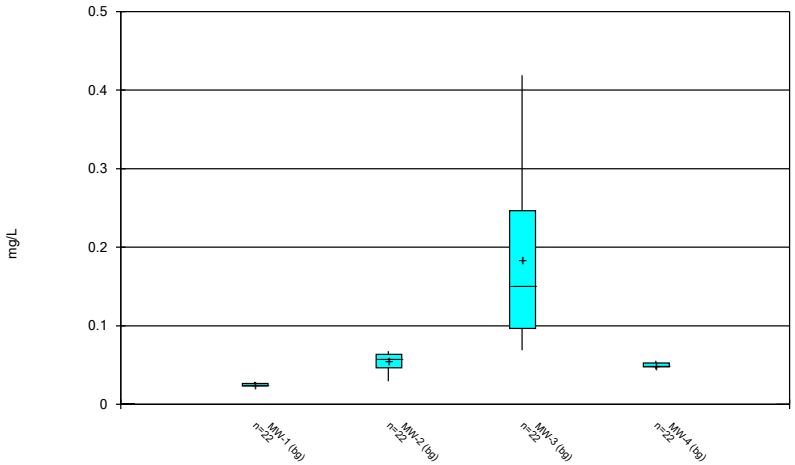


Constituent: Lead Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

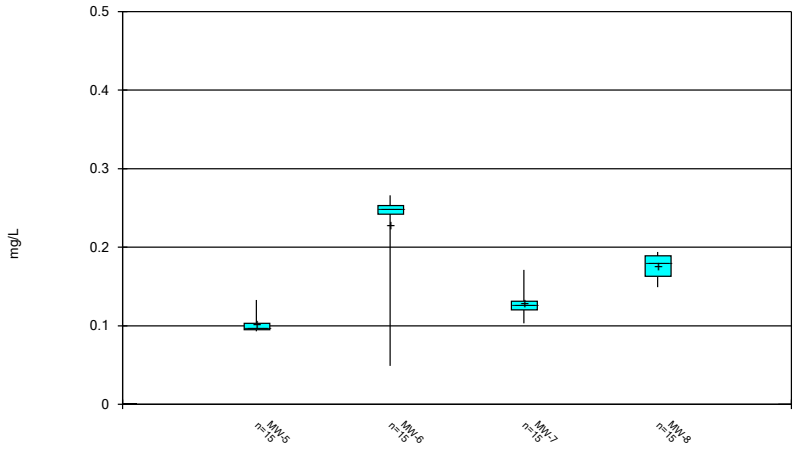


Constituent: Lithium Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

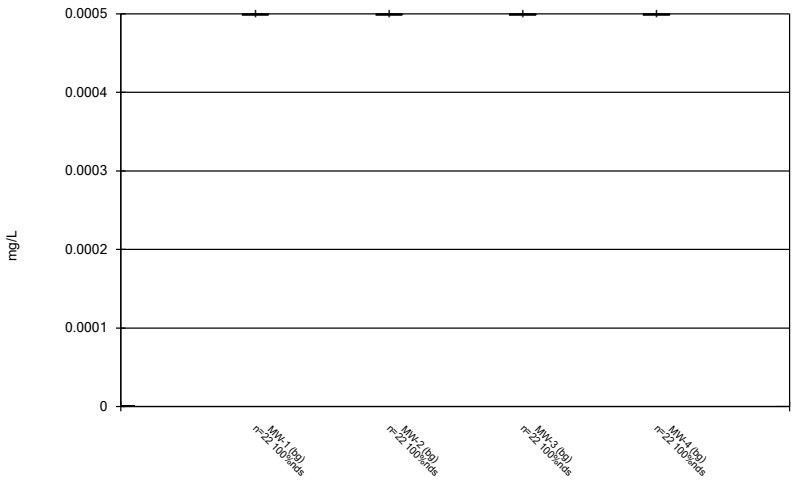
Box & Whiskers Plot



Constituent: Lithium Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Box & Whiskers Plot

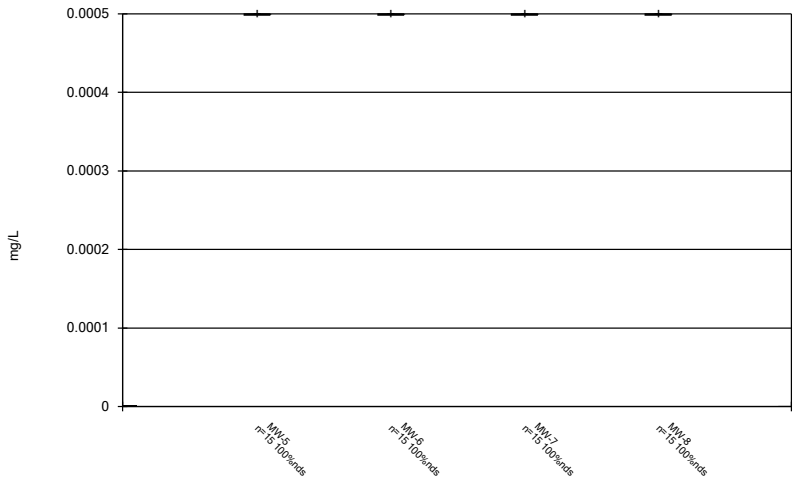


Constituent: Mercury Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

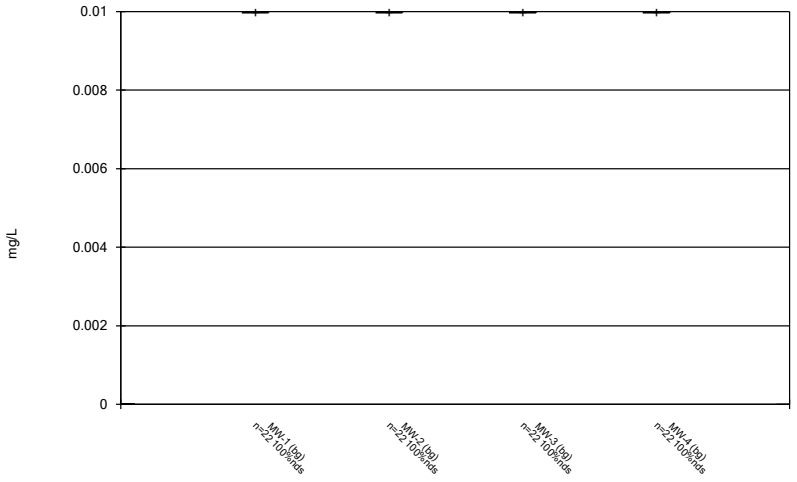


Constituent: Mercury Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

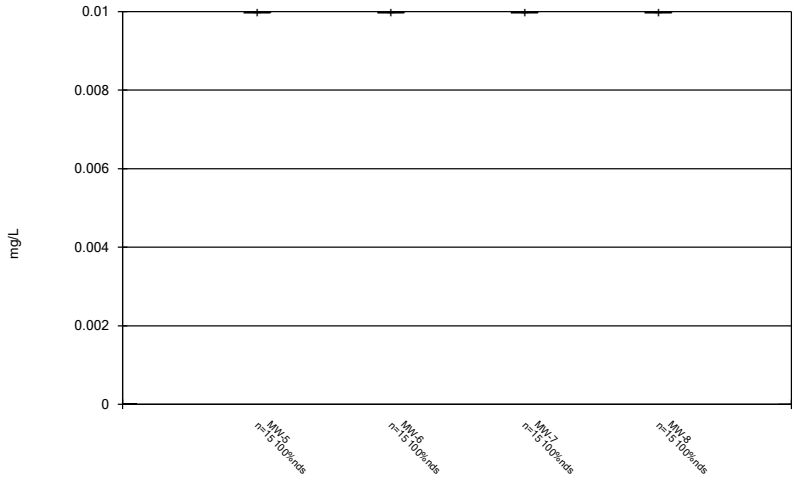


Constituent: Molybdenum Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

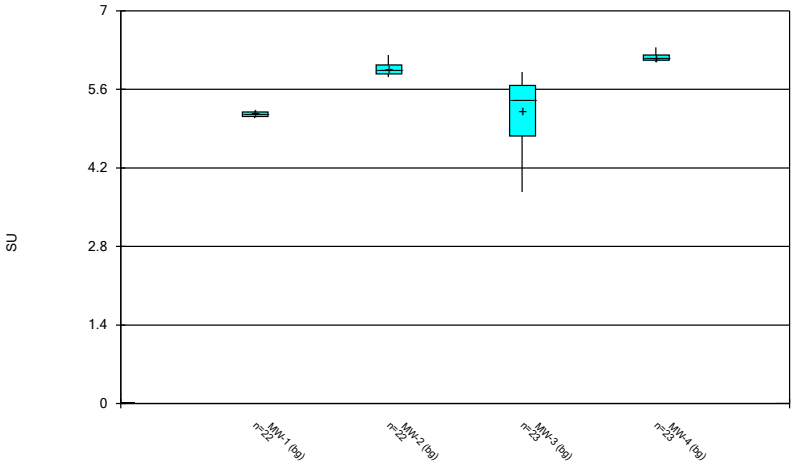
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Box & Whiskers Plot

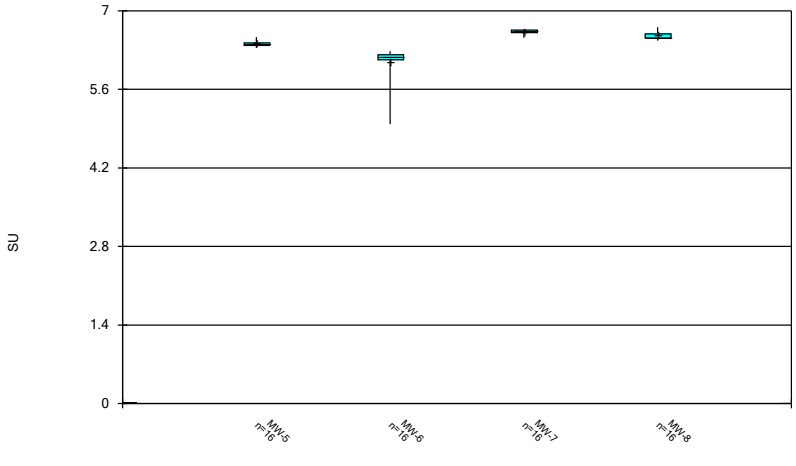


Constituent: pH, Field Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

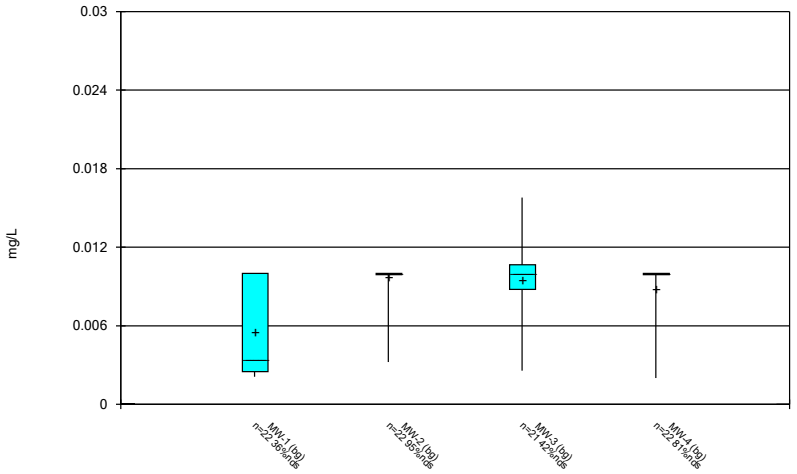


Constituent: pH, Field Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

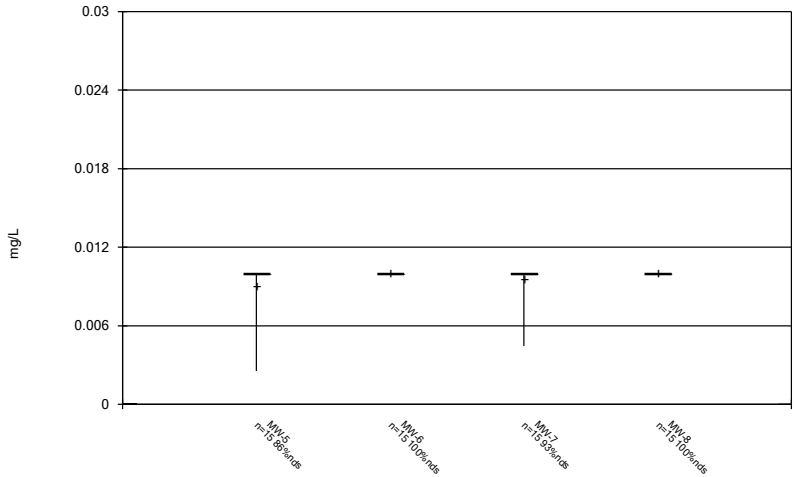


Constituent: Selenium Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

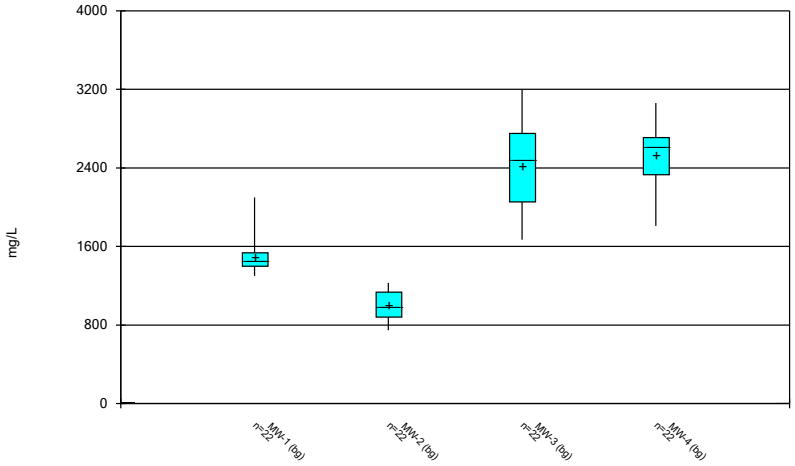
Box & Whiskers Plot



Constituent: Selenium Analysis Run 10/12/2020 3:04 PM

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

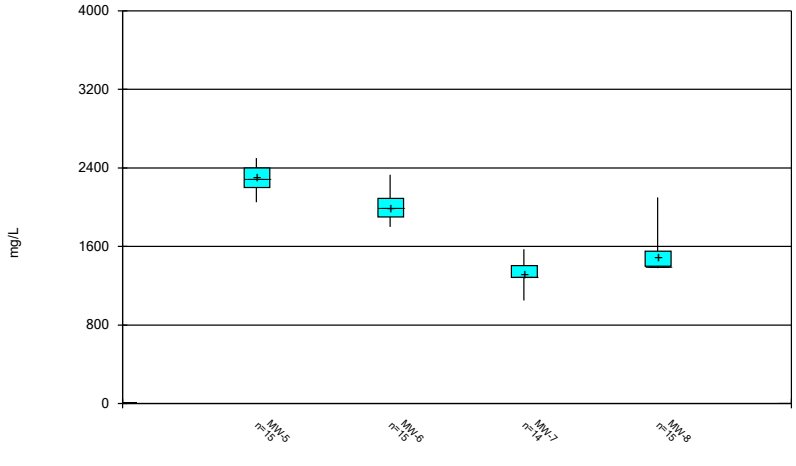
Box & Whiskers Plot



Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

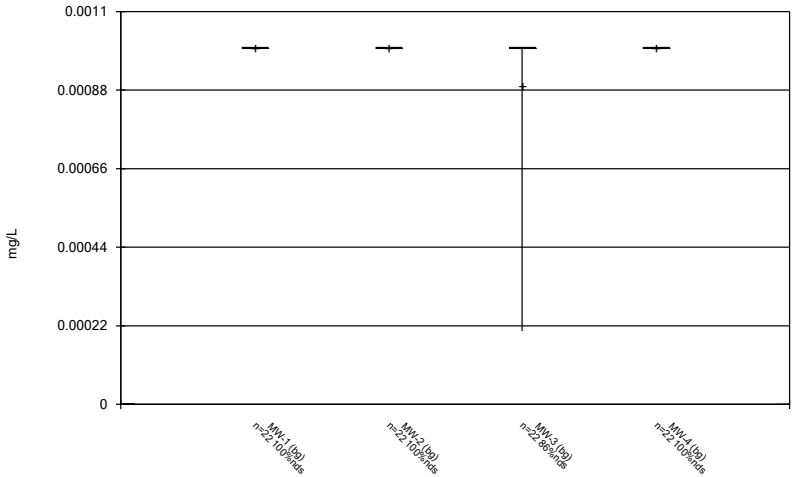
Box & Whiskers Plot



Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

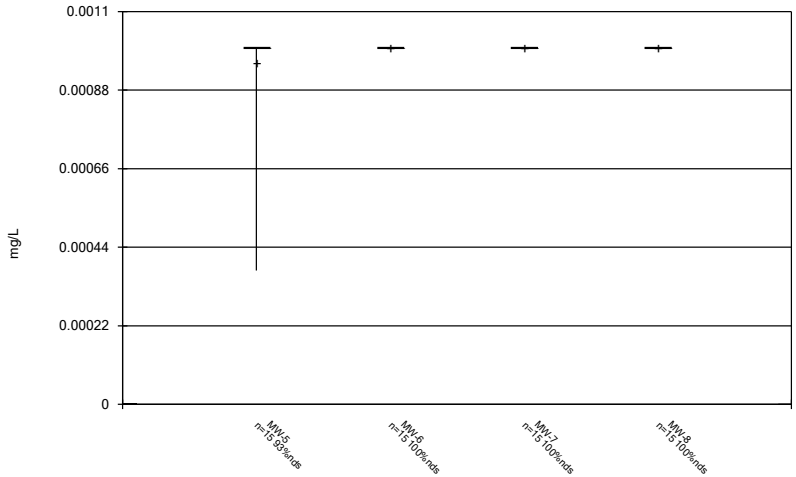
Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

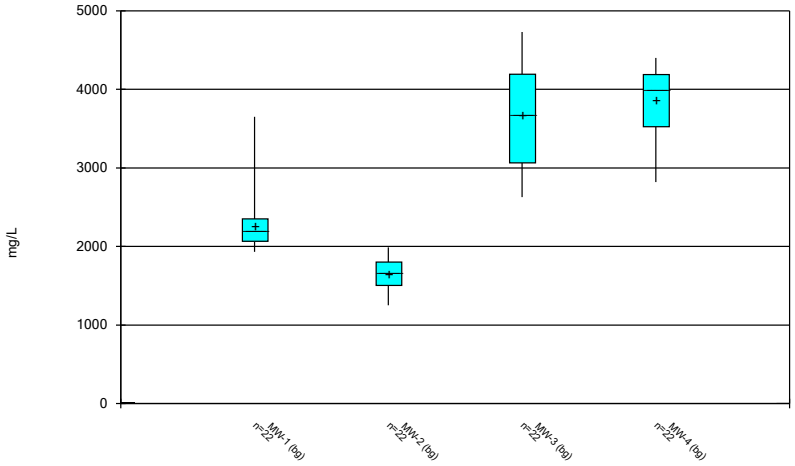
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

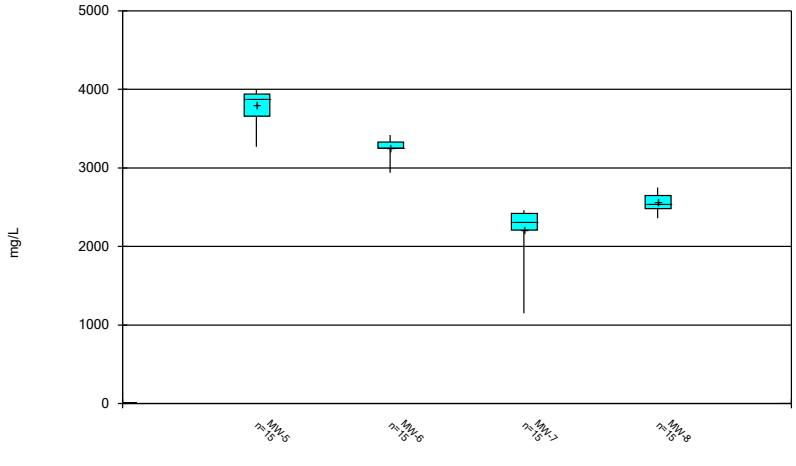
Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:04 PM
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

FIGURE C.

Outlier Summary

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:08 PM

	MW-3 Beryllium (mg/L)	MW-7 Boron, total (mg/L)	MW-3 Cadmium (mg/L)	MW-3 Selenium (mg/L)	MW-7 Sulfate as SO4 (mg/L)
4/25/2016			0.0121 (O)		
4/27/2016		0.253 (O)			
1/18/2017	0.0169 (O)				
2/13/2018				0.0209 (O)	
5/23/2018					1900 (O)
11/19/2018	0.0185 (O)				
7/13/2020			0.00885 (O)		

FIGURE D.

Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, Total (mg/L)	**MW-5**	**3.873**	**n/a**	**7/14/2020**	**6.84**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	**MW-7**	**3.873**	**n/a**	**7/14/2020**	**9.68**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	**MW-8**	**3.873**	**n/a**	**7/15/2020**	**23.8**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
pH, Field (SU)	**MW-5**	**6.35**	**3.77**	**7/14/2020**	**6.48**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	**MW-7**	**6.35**	**3.77**	**7/14/2020**	**6.52**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	**MW-8**	**6.35**	**3.77**	**7/15/2020**	**6.71**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2

Interwell Prediction Limits - All Results

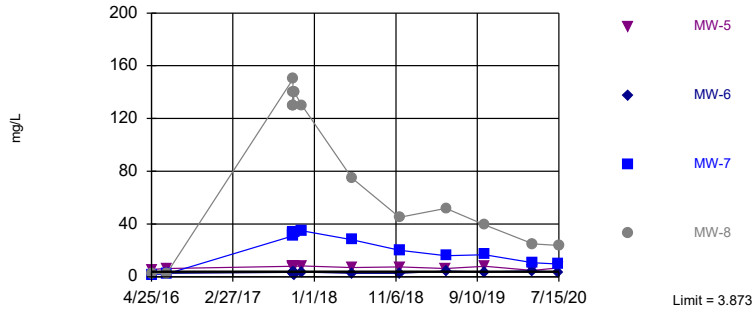
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, Total (mg/L)	**MW-5**	**3.873**	**n/a**	**7/14/2020**	**6.84**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	MW-6	3.873	n/a	7/14/2020	3.25	No	88	1.295	0.1567	3.409	None	x^(1/3)	0.00188	Param 1 of 2
Chloride, Total (mg/L)	**MW-7**	**3.873**	**n/a**	**7/14/2020**	**9.68**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
Chloride, Total (mg/L)	**MW-8**	**3.873**	**n/a**	**7/15/2020**	**23.8**	**Yes**	**88**	**1.295**	**0.1567**	**3.409**	**None**	**x^(1/3)**	**0.00188**	Param 1 of 2
pH, Field (SU)	**MW-5**	**6.35**	**3.77**	**7/14/2020**	**6.48**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	MW-6	6.35	3.77	7/14/2020	6.12	No	90	n/a	n/a	0	n/a	n/a	0.0004759	NP (normality) 1 of 2
pH, Field (SU)	**MW-7**	**6.35**	**3.77**	**7/14/2020**	**6.52**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2
pH, Field (SU)	**MW-8**	**6.35**	**3.77**	**7/15/2020**	**6.71**	**Yes**	**90**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004759**	NP (normality) 1 of 2

Exceeds Limit: MW-5, MW-7, MW-8

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=1.295, Std. Dev.=0.1567, n=88, 3.409% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9709, critical = 0.961. Kappa = 1.759 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

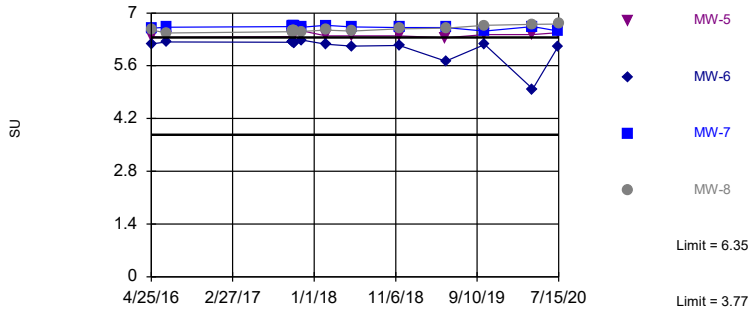
Constituent: Chloride, Total Analysis Run 10/12/2020 3:11 PM View: Appendix III - Interwell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Exceeds Limits: MW-5, MW-7, MW-8

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 90 background values. Annual per-constituent alpha = 0.003804. Individual comparison alpha = 0.0004759 (1 of 2). Comparing 4 points to limit.

Constituent: pH, Field Analysis Run 10/12/2020 3:11 PM View: Appendix III - Interwell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 10/12/2020 3:13 PM View: Appendix III - Interwell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3 (bg)	MW-4 (bg)	MW-2 (bg)	MW-5	MW-1 (bg)	MW-6	MW-7	MW-8
4/25/2016	1.32	1.53	1.9	5.44				
4/26/2016					1.94			
4/27/2016						2.19	1.71	2.34
6/20/2016		1.85	3.43		2.09			
6/21/2016				6.32		2.56	2.04	2.29
6/22/2016	1.46							
8/8/2016			3.31		2.18			
8/9/2016	1.35	1.95						
8/24/2016	1.47	2.07	3.23		2.22			
10/3/2016		2.02	3.21		2.34			
10/4/2016	1.59							
10/26/2016	1.27	2.07	3.35		2.34			
11/21/2016	1.38	2.39	3.34		2.5			
1/17/2017			3.58		2.68			
1/18/2017	1.34	1.9						
3/22/2017	2	1.5 (J)	3.4		3.7			
4/18/2017	2.2	1.6 (J)	2.6		2.4			
5/30/2017					2.6			
5/31/2017	1.5 (J)	2.1	4.4					
8/23/2017	1.8 (J)	2.3	4.4		2.7			
10/12/2017				7.9		3.4	31	150
10/13/2017				8 (B)		3 (B)	32 (B)	130 (B)
10/14/2017				7.4		2.8	33	140
10/15/2017				7.2		1.9 (J)	34	130
10/16/2017				8.1		1.8 (J)	34	140
10/17/2017				7.9		3.1	34	140
11/16/2017				8.1		3.5	35	130
5/22/2018			3.2		2.3			
5/23/2018		2		7		2.6	28	75
5/24/2018	1.6 (J)							
6/12/2018	1.4 (J)	1.7 (J)	3.7		2.3			
10/17/2018	<2	1.5 (J)	4.6		1.7 (J)			
11/19/2018	<2	<2	3		1.7 (J)			
11/20/2018				7.4		2.7	20	45
4/10/2019	2.25	1.88	1.76		2.36			
5/14/2019	2.28	1.82	2.98	6.24	2.28			
5/15/2019						4.45	15.9	52
10/8/2019	1.36		4.26		2.31		16.8	
10/9/2019								39.2
10/10/2019		1.93		7.88		3.61		
10/16/2019	1.4	1.92	4.04		2.42			
4/6/2020	1.72	1.5	2.43		2.01			
4/7/2020				4.83				
4/8/2020						4.63	10.6	24.9
7/13/2020	1.34		4.05		2.1			
7/14/2020		1.61		6.84		3.25	9.68	
7/15/2020								23.8

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 10/12/2020 3:13 PM View: Appendix III - Interwell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3 (bg)	MW-4 (bg)	MW-2 (bg)	MW-5	MW-1 (bg)	MW-8	MW-7	MW-6
4/25/2016	5.56	6.22	5.94	6.37				
4/26/2016					5.2			
4/27/2016						6.55	6.6	6.18
6/20/2016		6.21	5.96		5.18			
6/21/2016				6.35		6.47	6.62	6.23
6/22/2016	5.57							
8/8/2016			5.88		5.12			
8/9/2016	5.67	6.11						
8/24/2016	5.63	6.11						
10/3/2016		6.13 (D)	5.91 (D)		5.21 (D)			
10/4/2016	5.69 (D)							
10/26/2016	5.56	6.12	5.84		5.2			
11/21/2016	5.42 (D)	6.09 (D)	5.82 (D)		5.19 (D)			
1/17/2017			5.87 (D)		5.17 (D)			
1/18/2017	5.11 (D)	6.09 (D)						
3/22/2017	4.52 (D)	6.15 (D)	6.01 (D)		5.2 (D)			
4/18/2017	5.84	6.19	6.02		5.2			
5/30/2017					5.14 (D)			
5/31/2017	4.56 (D)	6.13 (D)	5.85 (D)					
8/23/2017	4.77 (D)	6.12 (D)	5.89 (D)		5.12 (D)			
10/12/2017				6.38		6.5	6.64	6.22
10/13/2017				6.43		6.51	6.64	6.23
10/14/2017				6.41		6.53	6.66	6.22
10/15/2017				6.42		6.53	6.67	6.22
10/16/2017				6.42		6.54	6.67	6.21
10/17/2017				6.41		6.54	6.66	6.2
11/16/2017				6.53		6.51	6.62	6.28
2/13/2018	5.67	6.22	6.21		5.18			
2/14/2018				6.39		6.55	6.67	6.17
5/22/2018			6.04		5.2			
5/23/2018		6.21		6.39		6.52	6.63	6.12
5/24/2018	5.19							
6/12/2018	4.79	6.16	5.95		5.15			
10/17/2018	4.75	6.12	5.9		5.12			
11/19/2018	3.77 (E)	6.16	6.03		5.09			
11/20/2018				6.39		6.58	6.61	6.14
4/10/2019	5.54	6.14	6.1		5.11			
5/14/2019	5.71	6.23	6.07	6.34	5.19			
5/15/2019						6.6	6.61	5.72
10/8/2019	4.98		5.96		5.12		6.52	
10/9/2019						6.67		
10/10/2019		6.15		6.43				6.16
10/16/2019	4.51	6.19	5.98		5.16			
4/6/2020	5.91	6.35	6.21		5.21			
4/7/2020				6.43				
4/8/2020						6.7	6.64	4.98
7/13/2020	5.16		5.84		5.14			
7/14/2020		6.2		6.48			6.52	6.12
7/15/2020						6.71		

FIGURE E.

Intrawell Prediction Limits - All Results (No Significant)

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:16 PM

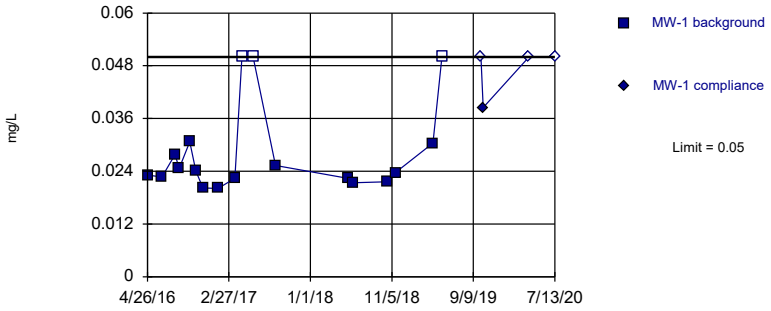
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	MW-1	0.05	n/a	7/13/2020	0.05ND	No	18	n/a	n/a	16.67	n/a	n/a	0.005373	NP (normality) 1 of 2
Boron, total (mg/L)	MW-2	0.04783	n/a	7/13/2020	0.05ND	No	18	0.03116	0.008202	11.11	None	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-3	0.05843	n/a	7/13/2020	0.0366J	No	18	0.0423	0.00794	16.67	Kaplan-Meier	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-4	0.1015	n/a	7/14/2020	0.0441J	No	18	n/a	n/a	5.556	n/a	n/a	0.005373	NP (normality) 1 of 2
Boron, total (mg/L)	MW-5	0.1015	n/a	7/14/2020	0.033J	No	12	n/a	n/a	8.333	n/a	n/a	0.01077	NP (normality) 1 of 2
Boron, total (mg/L)	MW-6	0.09671	n/a	7/14/2020	0.0838J	No	12	0.07943	0.007739	0	None	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-7	0.08083	n/a	7/14/2020	0.0865J	No	11	0.07139	0.004105	0	None	No	0.00188	Param 1 of 2
Boron, total (mg/L)	MW-8	0.0831	n/a	7/15/2020	0.0723J	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP (normality) 1 of 2
Calcium, total (mg/L)	MW-1	243	n/a	7/13/2020	147	No	18	n/a	n/a	0	n/a	n/a	0.005373	NP (normality) 1 of 2
Calcium, total (mg/L)	MW-2	218.6	n/a	7/13/2020	163	No	18	173.9	22.02	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-3	416.4	n/a	7/13/2020	264	No	18	301.6	56.48	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-4	388.7	n/a	7/14/2020	259	No	18	311.2	38.16	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-5	466.9	n/a	7/14/2020	395	No	12	382.1	38.01	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-6	471.6	n/a	7/14/2020	406	No	12	390.4	36.38	0	None	No	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-7	346.8	n/a	7/14/2020	261	No	12	2.6e7	6944823	0	None	x^3	0.00188	Param 1 of 2
Calcium, total (mg/L)	MW-8	341.4	n/a	7/15/2020	280	No	12	304.5	16.53	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-1	0.1975	n/a	7/13/2020	0.0678J	No	19	0.1261	0.03556	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-2	0.2572	n/a	7/13/2020	0.132	No	19	0.1404	0.05808	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-3	0.6475	n/a	7/13/2020	0.13	No	19	-1.063	0.3126	0	None	ln(x)	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-4	0.4323	n/a	7/14/2020	0.33	No	19	0.1114	0.03754	0	None	x^2	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-5	0.4265	n/a	7/14/2020	0.263	No	13	0.3334	0.04245	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-6	0.1565	n/a	7/14/2020	0.115	No	13	0.1398	0.007628	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-7	0.2139	n/a	7/14/2020	0.193	No	13	0.1855	0.01295	0	None	No	0.00188	Param 1 of 2
Fluoride, total (mg/L)	MW-8	0.2342	n/a	7/15/2020	0.196	No	13	0.2142	0.009112	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-1	2100	n/a	7/13/2020	1450	No	18	n/a	n/a	0	n/a	n/a	0.005373	NP (normality) 1 of 2
Sulfate as SO4 (mg/L)	MW-2	1260	n/a	7/13/2020	843	No	18	1003	126.2	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-3	3202	n/a	7/13/2020	2130	No	18	2431	379.6	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-4	3041	n/a	7/14/2020	1970	No	18	2566	233.5	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-5	2558	n/a	7/14/2020	2080	No	12	2339	98.21	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-6	2232	n/a	7/14/2020	1970	No	12	1983	111.5	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-7	1613	n/a	7/14/2020	1330	No	11	1306	133.5	0	None	No	0.00188	Param 1 of 2
Sulfate as SO4 (mg/L)	MW-8	2100	n/a	7/15/2020	1410	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-1	2544	n/a	7/13/2020	2240	No	18	2183	178	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-2	2052	n/a	7/13/2020	1540	No	18	1640	202.8	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-3	4938	n/a	7/13/2020	3650	No	18	3661	628.6	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-4	4601	n/a	7/14/2020	3310	No	18	1.6e7	2719774	0	None	x^2	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-5	4190	n/a	7/14/2020	3710	No	12	3846	154.3	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-6	3448	n/a	7/14/2020	3270	No	12	3283	74.36	0	None	No	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-7	2647	n/a	7/14/2020	2210	No	12	6.3e16	3.0e16	0	None	x^5	0.00188	Param 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-8	2862	n/a	7/15/2020	2460	No	12	2593	120.2	0	None	No	0.00188	Param 1 of 2

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 16.67% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

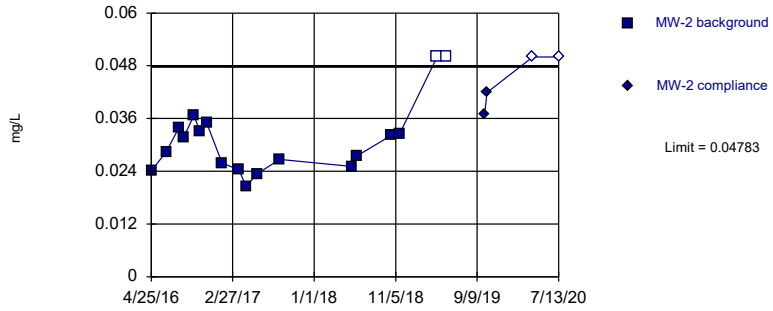
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.03116, Std. Dev.=0.008202, n=18, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.864, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

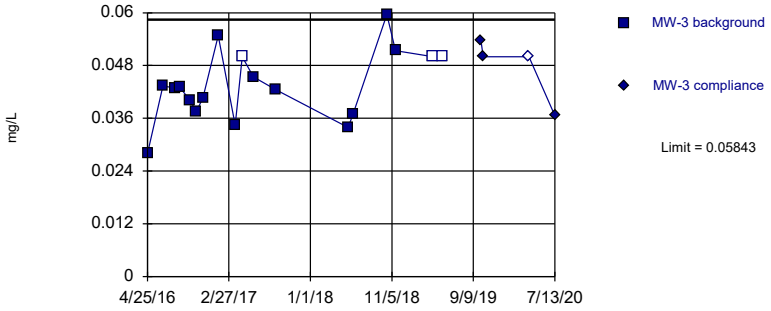
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0423, Std. Dev.=0.00794, n=18, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9846, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

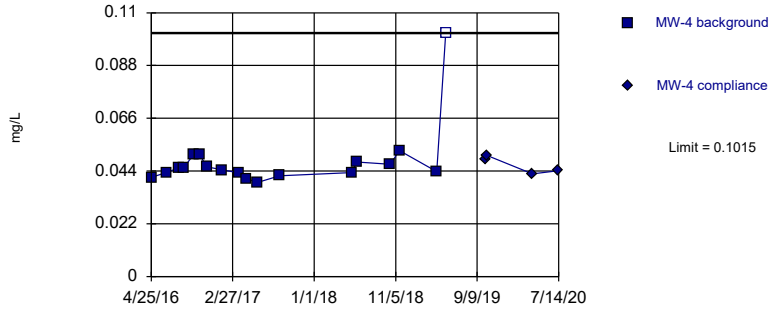
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 5.556% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

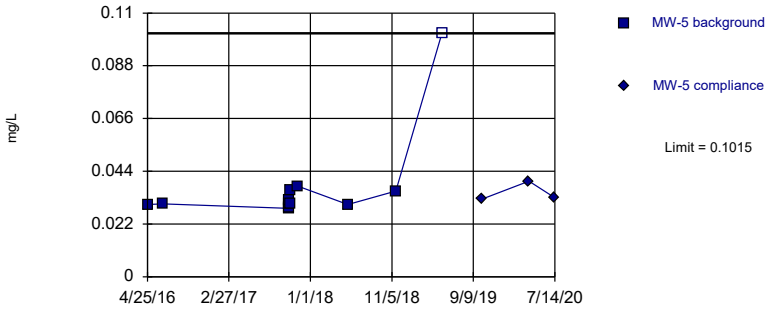
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 8.333% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

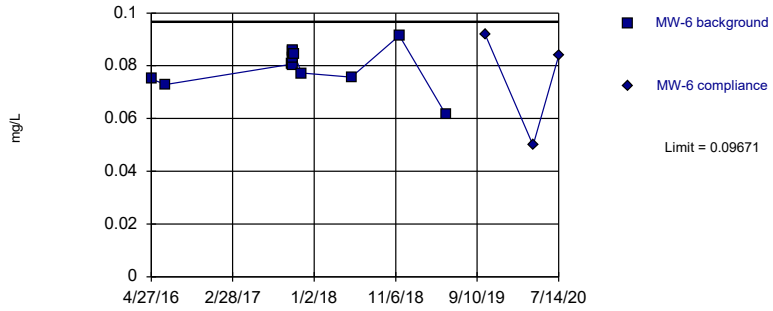
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07943, Std. Dev.=0.007739, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9479, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

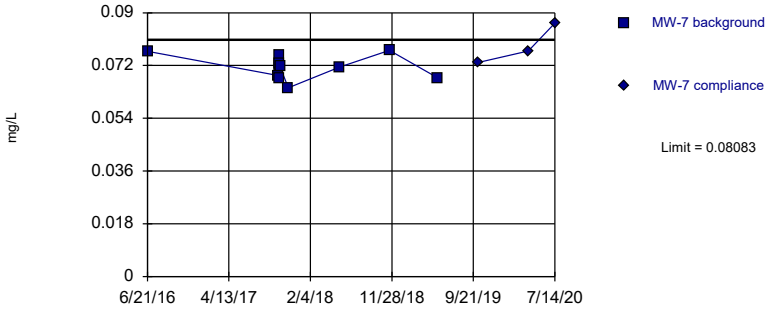
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07139, Std. Dev.=0.004105, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9512, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

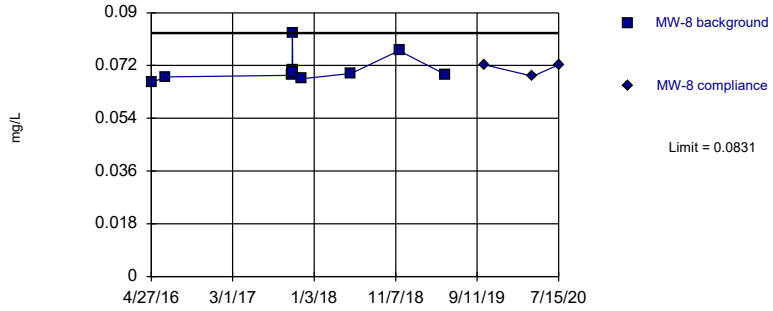
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

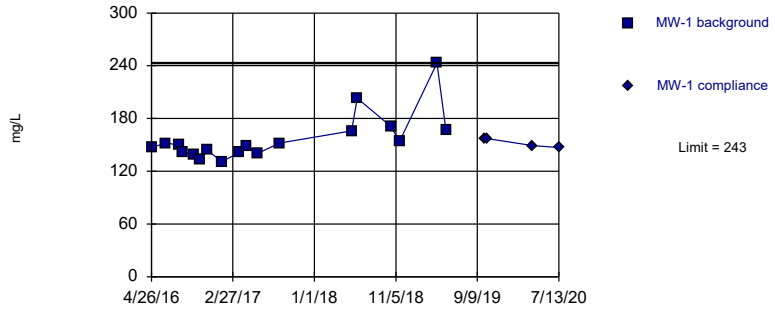
Constituent: Boron, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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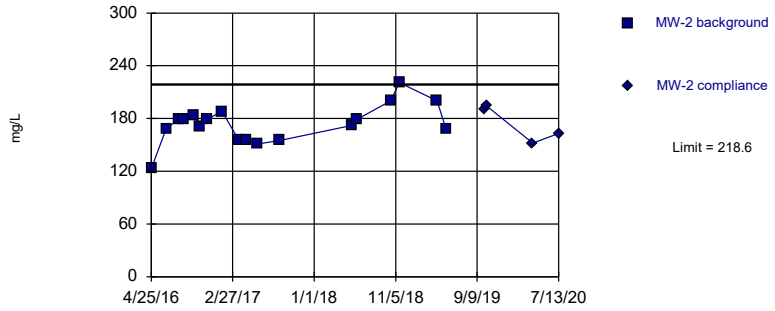
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=173.9, Std. Dev.=22.02, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9699, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

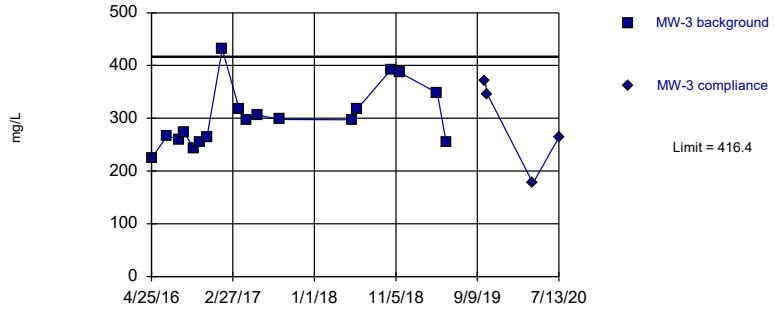
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=301.6, Std. Dev.=56.48, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9168, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

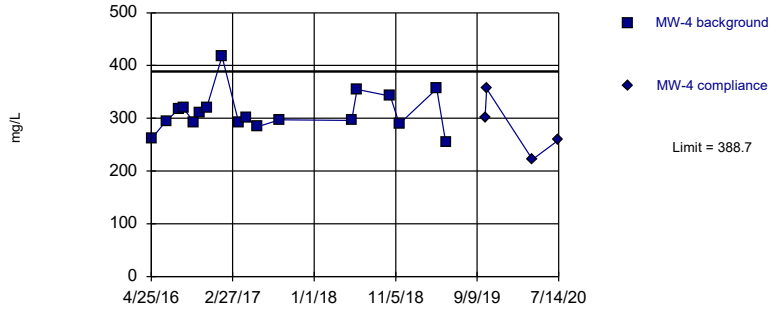
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=311.2, Std. Dev.=38.16, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

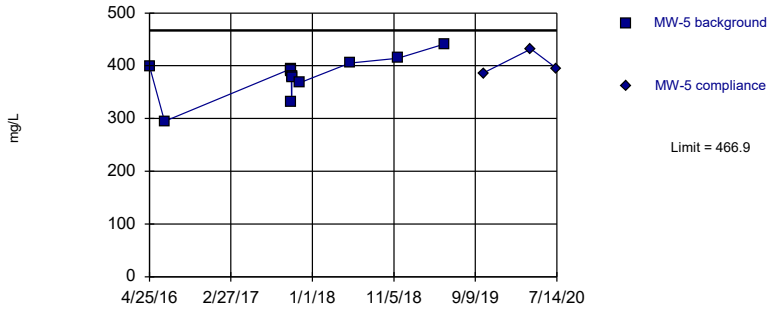
Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=382.1, Std. Dev.=38.01, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9172, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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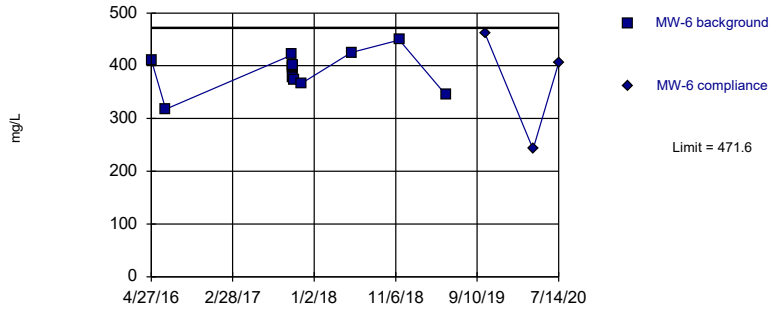
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=390.4, Std. Dev.=36.38, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9786, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

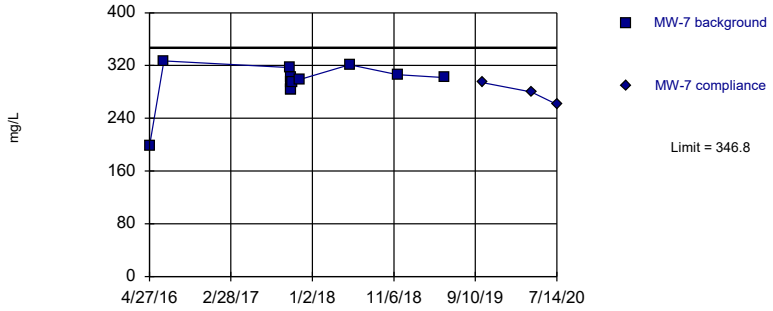
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=2.6e7, Std. Dev.=6944823, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8464, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

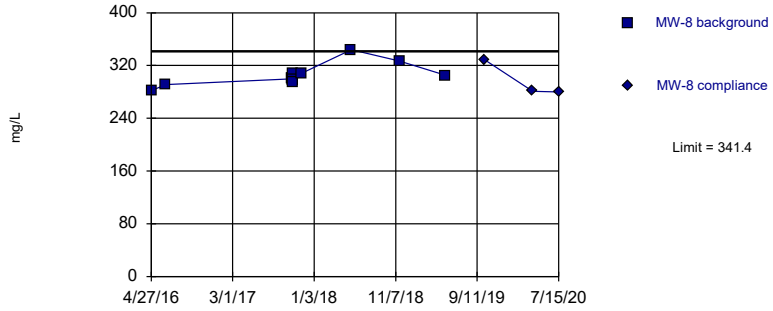
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=304.5, Std. Dev.=16.53, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8722, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

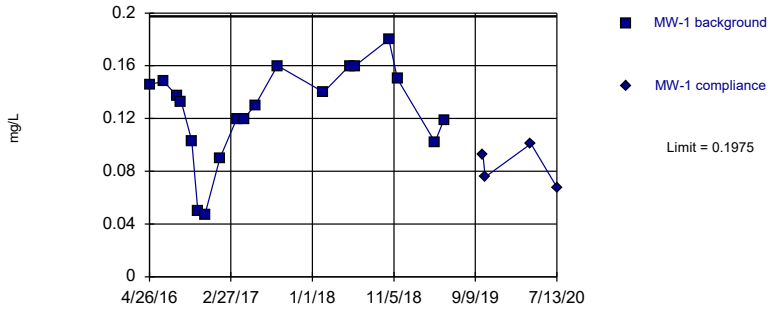
Constituent: Calcium, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1261, Std. Dev.=0.03556, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.863. Kappa = 2.01 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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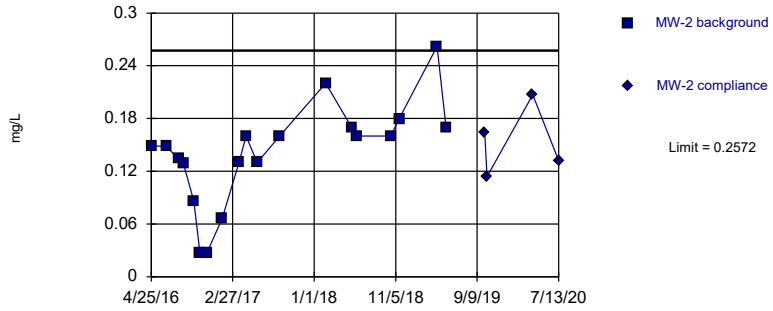
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1404, Std. Dev.=0.05808, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9263, critical = 0.863. Kappa = 2.01 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

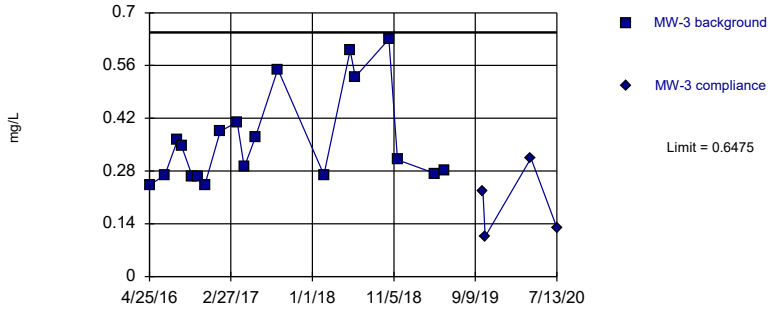
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.063, Std. Dev.=0.3126, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.875, critical = 0.863. Kappa = 2.01 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

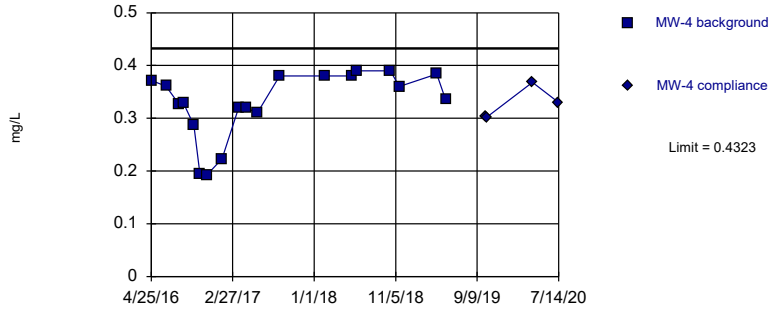
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=0.1114, Std. Dev.=0.03754, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8742, critical = 0.863. Kappa = 2.01 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

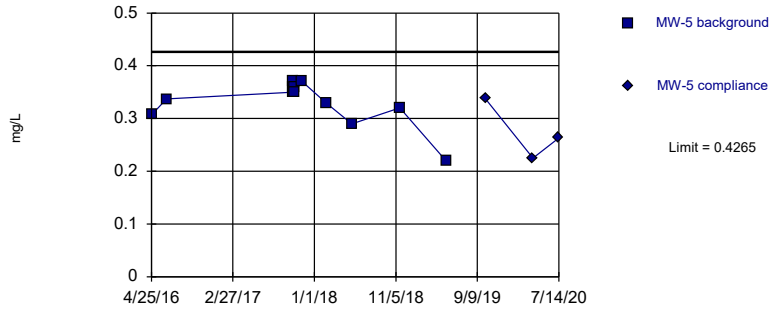
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3334, Std. Dev.=0.04245, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8179, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

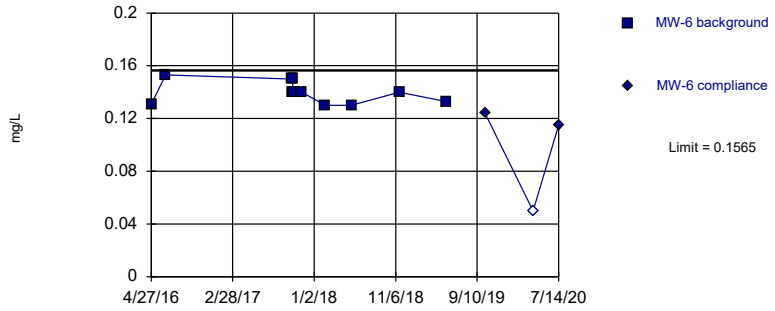
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1398, Std. Dev.=0.007628, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8775, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

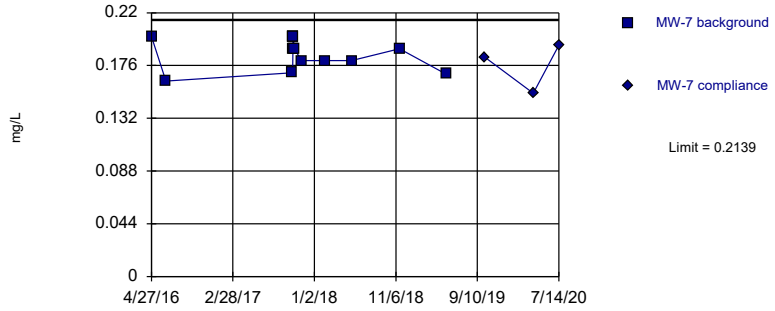
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1855, Std. Dev.=0.01295, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8949, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

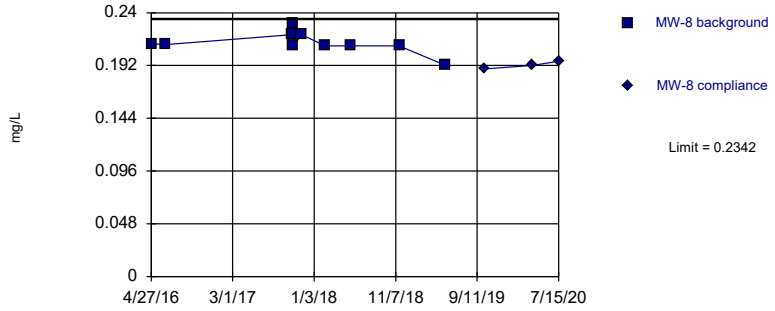
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2142, Std. Dev.=0.009112, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8671, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

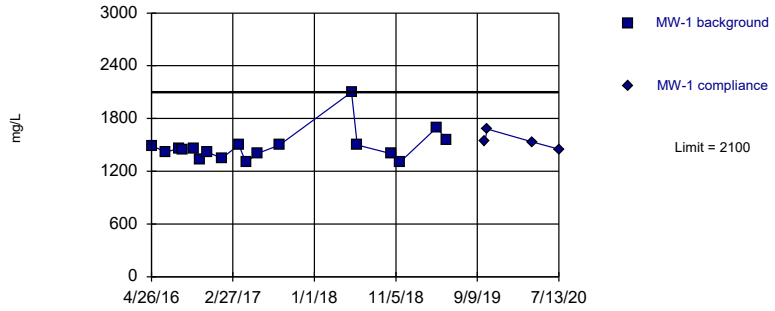
Constituent: Fluoride, total Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

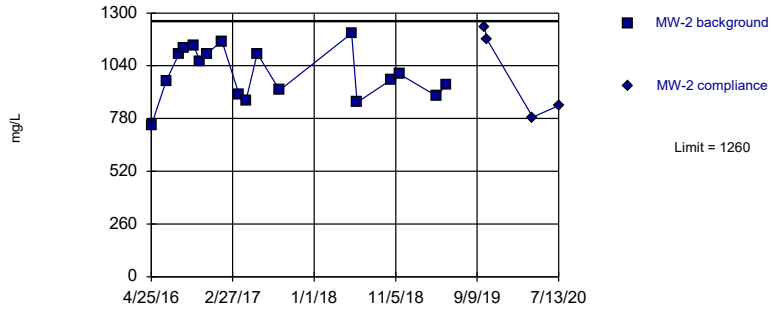
Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1003, Std. Dev.=126.2, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.957, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

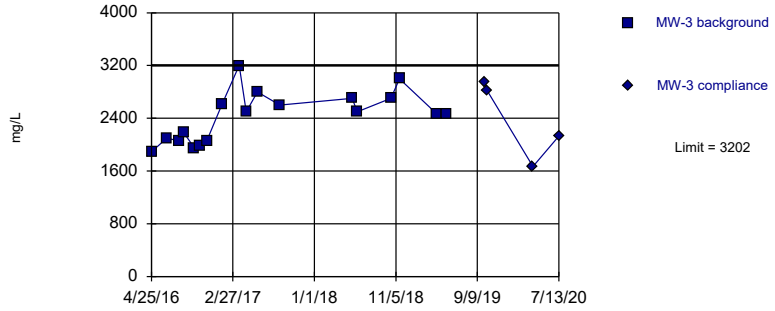
Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2431, Std. Dev.=379.6, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9476, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

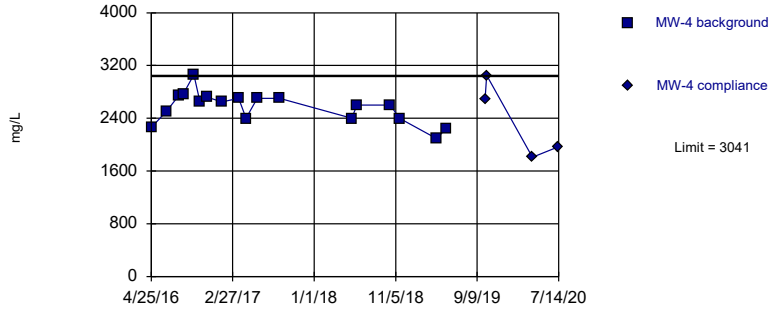
Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



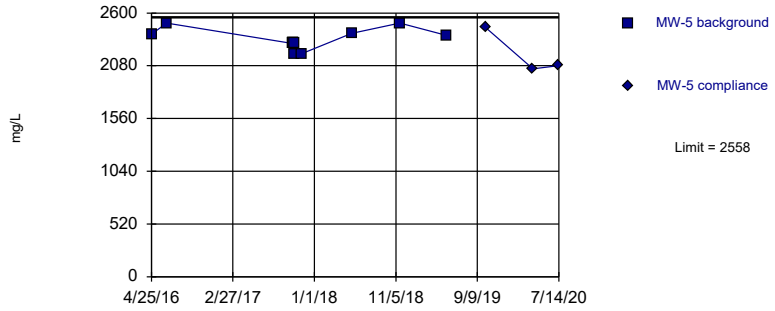
Background Data Summary: Mean=2566, Std. Dev.=233.5, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9529, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2339, Std. Dev.=98.21, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

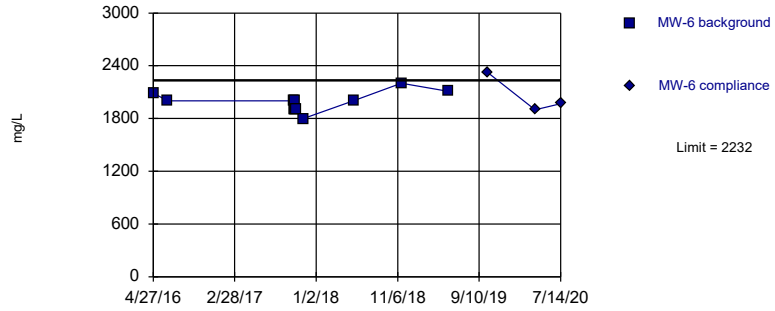
Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1983, Std. Dev.=111.5, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

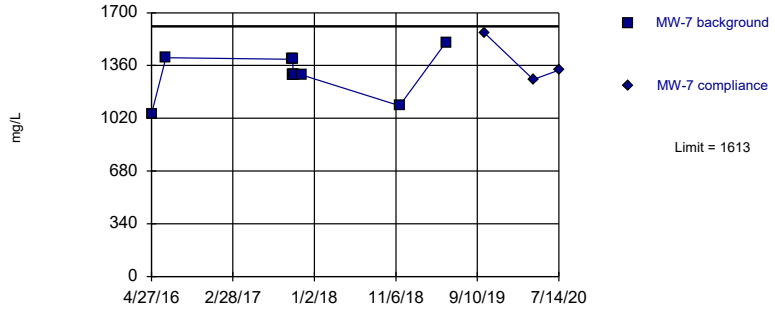
Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1306, Std. Dev.=133.5, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8855, critical = 0.792. Kappa = 2.3 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

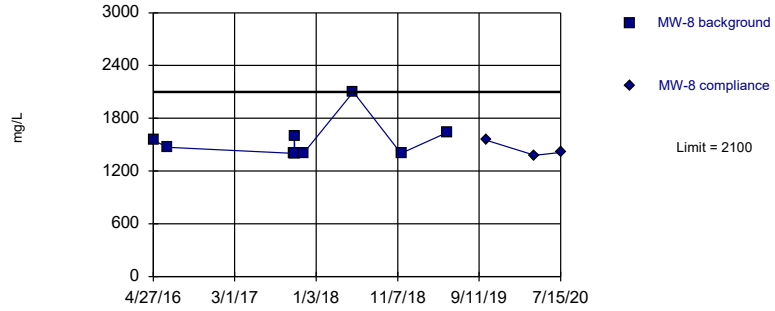
Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



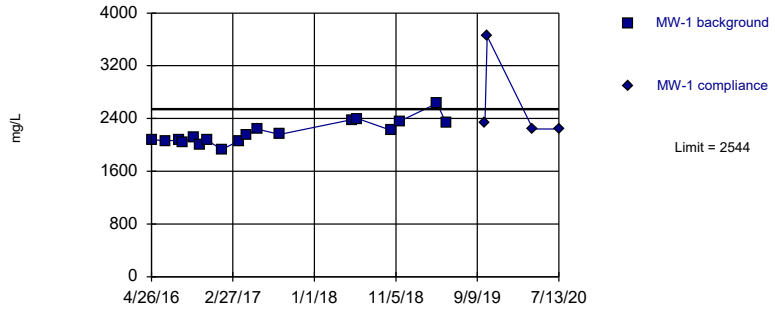
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2183, Std. Dev.=178, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

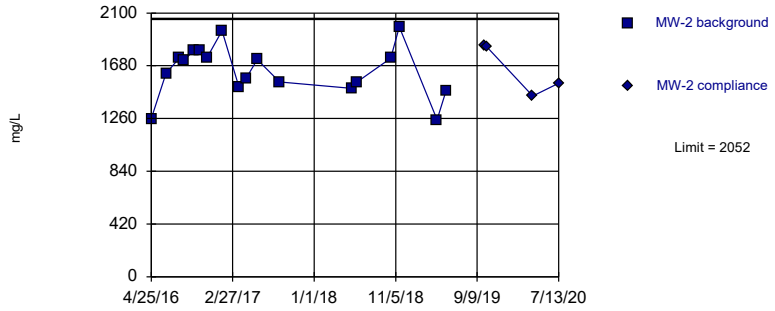
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1640, Std. Dev.=202.8, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.952, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

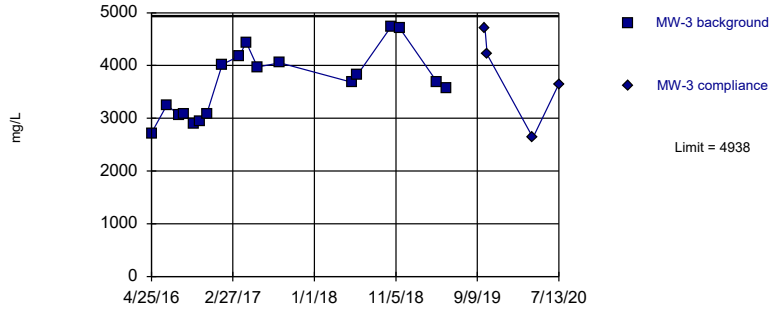
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3661, Std. Dev.=628.6, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9455, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

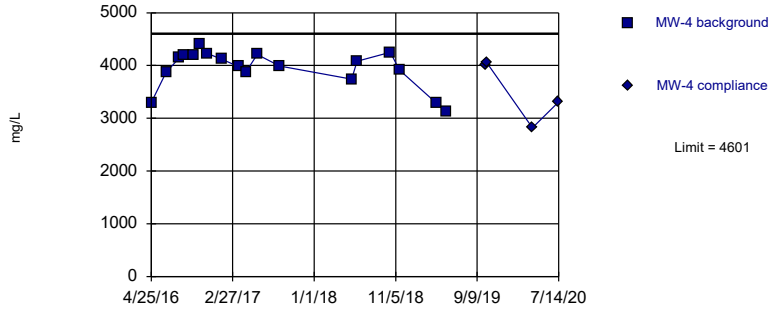
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=1.6e7, Std. Dev.=2719774, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8799, critical = 0.858. Kappa = 2.032 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

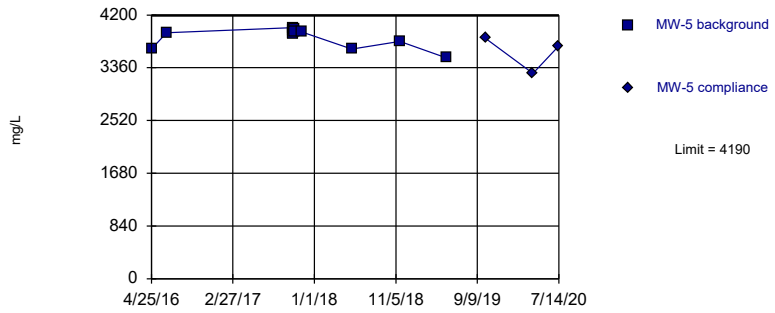
Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3846, Std. Dev.=154.3, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8398, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

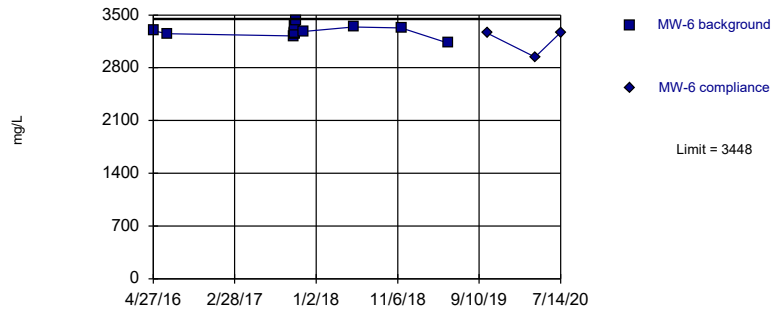
Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:15 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3283, Std. Dev.=74.36, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9669, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

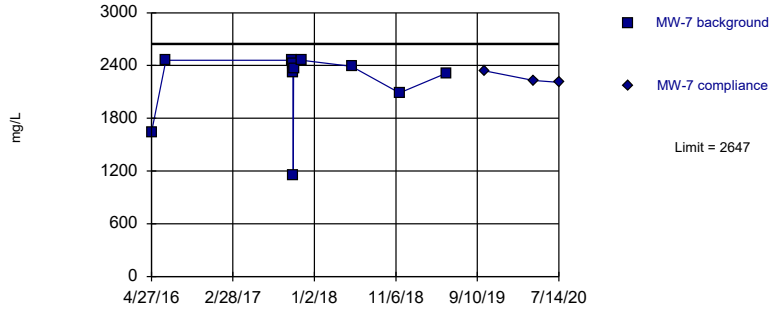
Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=6.3e16, Std. Dev.=3.0e16, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8216, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

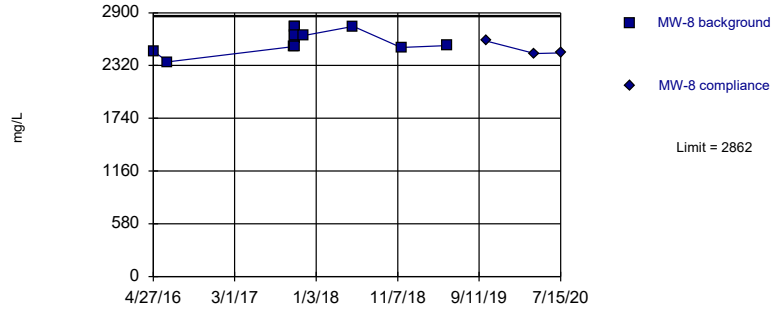
Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2593, Std. Dev.=120.2, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9303, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids [TDS] Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	0.0231 (J)	
6/20/2016	0.0227 (J)	
8/8/2016	0.0278 (J)	
8/24/2016	0.0247 (J)	
10/3/2016	0.0307 (J)	
10/26/2016	0.0241 (J)	
11/21/2016	0.0202 (J)	
1/17/2017	0.0201 (J)	
3/22/2017	0.0224 (J)	
4/18/2017	<0.1	
5/30/2017	<0.1	
8/23/2017	0.0253 (J)	
5/22/2018	0.0224 (J)	
6/12/2018	0.0214 (J)	
10/17/2018	0.0216 (J)	
11/19/2018	0.0237 (J)	
4/10/2019	0.0304 (J)	
5/14/2019	<0.1	
10/8/2019		<0.1
10/16/2019		0.0385 (J)
4/6/2020		<0.1
7/13/2020		<0.1

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	0.0241 (J)	
6/20/2016	0.0284 (J)	
8/8/2016	0.034 (J)	
8/24/2016	0.0316 (J)	
10/3/2016	0.0367 (J)	
10/26/2016	0.0331 (J)	
11/21/2016	0.035 (J)	
1/17/2017	0.0259 (J)	
3/22/2017	0.0243 (J)	
4/18/2017	0.0206 (J)	
5/31/2017	0.0234 (J)	
8/23/2017	0.0267 (J)	
5/22/2018	0.0251 (J)	
6/12/2018	0.0275 (J)	
10/17/2018	0.0321 (J)	
11/19/2018	0.0324 (J)	
4/10/2019	<0.1	
5/14/2019	<0.1	
10/8/2019		0.0371 (J)
10/16/2019		0.0419 (J)
4/6/2020		<0.1
7/13/2020		<0.1

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	0.028 (J)	
6/22/2016	0.0433 (J)	
8/9/2016	0.0429 (J)	
8/24/2016	0.0431 (J)	
10/4/2016	0.04 (J)	
10/26/2016	0.0375 (J)	
11/21/2016	0.0406 (J)	
1/18/2017	0.0548 (J)	
3/22/2017	0.0344 (J)	
4/18/2017	<0.1	
5/31/2017	0.0454 (J)	
8/23/2017	0.0425 (J)	
5/24/2018	0.0339 (J)	
6/12/2018	0.0371 (J)	
10/17/2018	0.0596 (J)	
11/19/2018	0.0514 (J)	
4/10/2019	<0.1	
5/14/2019	<0.1	
10/8/2019		0.0537 (J)
10/16/2019		0.05 (J)
4/6/2020		<0.1
7/13/2020		0.0366 (J)

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	0.0414 (J)	
6/20/2016	0.0434 (J)	
8/9/2016	0.0453 (J)	
8/24/2016	0.0451 (J)	
10/3/2016	0.0511 (J)	
10/26/2016	0.0507 (J)	
11/21/2016	0.0458 (J)	
1/18/2017	0.0445 (J)	
3/22/2017	0.0432 (J)	
4/18/2017	0.0409 (J)	
5/31/2017	0.0392 (J)	
8/23/2017	0.042 (J)	
5/23/2018	0.0433 (J)	
6/12/2018	0.0478 (J)	
10/17/2018	0.0468 (J)	
11/19/2018	0.0526 (J)	
4/10/2019	0.0438 (J)	
5/14/2019	<0.203	
10/10/2019		0.0487 (J)
10/16/2019		0.0505 (J)
4/6/2020		0.0428 (J)
7/14/2020		0.0441 (J)

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	0.0301 (J)	
6/21/2016	0.0304 (J)	
10/12/2017	0.0285 (J)	
10/13/2017	0.0287 (J)	
10/14/2017	0.0305 (J)	
10/15/2017	0.0319 (J)	
10/16/2017	0.0304 (J)	
10/17/2017	0.036 (J)	
11/16/2017	0.0377 (J)	
5/23/2018	0.0301 (J)	
11/20/2018	0.0357 (J)	
5/14/2019	<0.203	
10/10/2019		0.0323 (J)
4/7/2020		0.0399 (J)
7/14/2020		0.033 (J)

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	0.075 (J)	
6/21/2016	0.0729 (J)	
10/12/2017	0.0806 (J)	
10/13/2017	0.0803 (J)	
10/14/2017	0.0828 (J)	
10/15/2017	0.0852 (J)	
10/16/2017	0.0858 (J)	
10/17/2017	0.0846 (J)	
11/16/2017	0.0772 (J)	
5/23/2018	0.0757 (J)	
11/20/2018	0.0915 (J)	
5/15/2019	0.0616 (J)	
10/10/2019		0.0919 (J)
4/8/2020		0.0499 (J)
7/14/2020		0.0838 (J)

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	0.253 (O)	
6/21/2016	0.0768 (J)	
10/12/2017	0.0685 (J)	
10/13/2017	0.0674 (J)	
10/14/2017	0.0756 (J)	
10/15/2017	0.0719 (J)	
10/16/2017	0.0726 (J)	
10/17/2017	0.0716 (J)	
11/16/2017	0.0644 (J)	
5/23/2018	0.0715 (J)	
11/20/2018	0.0772 (J)	
5/15/2019	0.0678 (J)	
10/8/2019		0.073 (J)
4/8/2020		0.077 (J)
7/14/2020		0.0865 (J)

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	0.0662 (J)	
6/21/2016	0.0681 (J)	
10/12/2017	0.0687 (J)	
10/13/2017	0.0831 (J)	
10/14/2017	0.0702 (J)	
10/15/2017	0.0702 (J)	
10/16/2017	0.0707 (J)	
10/17/2017	0.0695 (J)	
11/16/2017	0.0675 (J)	
5/23/2018	0.0693 (J)	
11/20/2018	0.0771 (J)	
5/15/2019	0.0689 (J)	
10/9/2019		0.0723 (J)
4/8/2020		0.0683 (J)
7/15/2020		0.0723 (J)

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	147	
6/20/2016	152	
8/8/2016	150	
8/24/2016	142	
10/3/2016	139	
10/26/2016	133	
11/21/2016	144	
1/17/2017	131	
3/22/2017	141	
4/18/2017	149	
5/30/2017	140	
8/23/2017	152	
5/22/2018	166	
6/12/2018	203	
10/17/2018	171	
11/19/2018	154	
4/10/2019	243	
5/14/2019	167	
10/8/2019		157
10/16/2019		157
4/6/2020		149
7/13/2020		147

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	123	
6/20/2016	168	
8/8/2016	180	
8/24/2016	180	
10/3/2016	184	
10/26/2016	171	
11/21/2016	179	
1/17/2017	188	
3/22/2017	155	
4/18/2017	156	
5/31/2017	151	
8/23/2017	155	
5/22/2018	172	
6/12/2018	179	
10/17/2018	200	
11/19/2018	221	
4/10/2019	200	
5/14/2019	168	
10/8/2019		190
10/16/2019		194
4/6/2020		152
7/13/2020		163

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	224	
6/22/2016	266	
8/9/2016	260	
8/24/2016	274	
10/4/2016	243	
10/26/2016	254	
11/21/2016	263	
1/18/2017	431	
3/22/2017	318	
4/18/2017	296	
5/31/2017	306	
8/23/2017	298	
5/24/2018	297	
6/12/2018	318	
10/17/2018	392	
11/19/2018	387	
4/10/2019	348	
5/14/2019	254	
10/8/2019		371
10/16/2019		346
4/6/2020		177
7/13/2020		264

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	261	
6/20/2016	295	
8/9/2016	318	
8/24/2016	319	
10/3/2016	293	
10/26/2016	311	
11/21/2016	320	
1/18/2017	417	
3/22/2017	292	
4/18/2017	302	
5/31/2017	284	
8/23/2017	297	
5/23/2018	296	
6/12/2018	355	
10/17/2018	342	
11/19/2018	289	
4/10/2019	356	
5/14/2019	254	
10/10/2019		302
10/16/2019		356
4/6/2020		222
7/14/2020		259

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	399	
6/21/2016	295	
10/12/2017	394	
10/13/2017	389	
10/14/2017	391	
10/15/2017	332	
10/16/2017	380	
10/17/2017	377	
11/16/2017	368	
5/23/2018	405	
11/20/2018	414	
5/14/2019	441	
10/10/2019		386
4/7/2020		432
7/14/2020		395

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	411	
6/21/2016	318	
10/12/2017	421	
10/13/2017	396	
10/14/2017	400	
10/15/2017	378	
10/16/2017	402	
10/17/2017	373	
11/16/2017	367	
5/23/2018	425	
11/20/2018	449	
5/15/2019	345	
10/10/2019		461
4/8/2020		242
7/14/2020		406

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	198	
6/21/2016	327	
10/12/2017	317	
10/13/2017	302	
10/14/2017	283	
10/15/2017	294	
10/16/2017	284	
10/17/2017	294	
11/16/2017	299	
5/23/2018	321	
11/20/2018	306	
5/15/2019	302	
10/8/2019		294
4/8/2020		280
7/14/2020		261

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	282	
6/21/2016	291	
10/12/2017	300	
10/13/2017	298	
10/14/2017	299	
10/15/2017	307	
10/16/2017	299	
10/17/2017	294	
11/16/2017	308	
5/23/2018	344	
11/20/2018	327	
5/15/2019	305	
10/9/2019		329
4/8/2020		281
7/15/2020		280

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	0.146 (J)	
6/20/2016	0.148 (J)	
8/8/2016	0.137 (J)	
8/24/2016	0.133 (J)	
10/3/2016	0.103 (J)	
10/26/2016	0.05 (J)	
11/21/2016	0.047 (J)	
1/17/2017	0.09 (J)	
3/22/2017	0.12	
4/18/2017	0.12	
5/30/2017	0.13	
8/23/2017	0.16	
2/13/2018	0.14 (D)	
5/22/2018	0.16	
6/12/2018	0.16	
10/17/2018	0.18	
11/19/2018	0.15	
4/10/2019	0.102	
5/14/2019	0.119	
10/8/2019		0.0924 (J)
10/16/2019		0.0756 (J)
4/6/2020		0.101
7/13/2020		0.0678 (J)

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	0.149 (J)	
6/20/2016	0.148 (J)	
8/8/2016	0.134 (J)	
8/24/2016	0.129 (J)	
10/3/2016	0.086 (J)	
10/26/2016	0.027 (J)	
11/21/2016	0.027 (J)	
1/17/2017	0.066 (J)	
3/22/2017	0.13	
4/18/2017	0.16	
5/31/2017	0.13	
8/23/2017	0.16	
2/13/2018	0.22 (D)	
5/22/2018	0.17	
6/12/2018	0.16	
10/17/2018	0.16	
11/19/2018	0.18	
4/10/2019	0.262	
5/14/2019	0.17	
10/8/2019		0.164
10/16/2019		0.114
4/6/2020		0.207
7/13/2020		0.132

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	0.243 (J)	
6/22/2016	0.269 (J)	
8/9/2016	0.363	
8/24/2016	0.346	
10/4/2016	0.266 (J)	
10/26/2016	0.266 (J)	
11/21/2016	0.244 (J)	
1/18/2017	0.385	
3/22/2017	0.41	
4/18/2017	0.29	
5/31/2017	0.37	
8/23/2017	0.55	
2/13/2018	0.27 (D)	
5/24/2018	0.6	
6/12/2018	0.53	
10/17/2018	0.63	
11/19/2018	0.31	
4/10/2019	0.273	
5/14/2019	0.281	
10/8/2019		0.225
10/16/2019		0.106
4/6/2020		0.314
7/13/2020		0.13

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	0.372	
6/20/2016	0.361	
8/9/2016	0.326	
8/24/2016	0.329	
10/3/2016	0.287 (J)	
10/26/2016	0.194 (J)	
11/21/2016	0.192 (J)	
1/18/2017	0.223 (J)	
3/22/2017	0.32	
4/18/2017	0.32	
5/31/2017	0.31	
8/23/2017	0.38	
2/13/2018	0.38 (D)	
5/23/2018	0.38	
6/12/2018	0.39	
10/17/2018	0.39	
11/19/2018	0.36	
4/10/2019	0.384	
5/14/2019	0.335	
10/10/2019		0.304
10/16/2019		0.302
4/6/2020		0.368
7/14/2020		0.33

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	0.307	
6/21/2016	0.337	
10/12/2017	0.35	
10/13/2017	0.36	
10/14/2017	0.37	
10/15/2017	0.37	
10/16/2017	0.36	
10/17/2017	0.35	
11/16/2017	0.37	
2/14/2018	0.33 (D)	
5/23/2018	0.29	
11/20/2018	0.32	
5/14/2019	0.22	
10/10/2019		0.338
4/7/2020		0.225
7/14/2020		0.263

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	0.131 (J)	
6/21/2016	0.153 (J)	
10/12/2017	0.15	
10/13/2017	0.15	
10/14/2017	0.14	
10/15/2017	0.14	
10/16/2017	0.14	
10/17/2017	0.14	
11/16/2017	0.14	
2/14/2018	0.13 (D)	
5/23/2018	0.13	
11/20/2018	0.14	
5/15/2019	0.133	
10/10/2019		0.124
4/8/2020		<0.1
7/14/2020		0.115

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	0.2 (J)	
6/21/2016	0.163 (J)	
10/12/2017	0.17	
10/13/2017	0.19	
10/14/2017	0.2	
10/15/2017	0.2	
10/16/2017	0.2	
10/17/2017	0.19	
11/16/2017	0.18	
2/14/2018	0.18 (D)	
5/23/2018	0.18	
11/20/2018	0.19	
5/15/2019	0.169	
10/8/2019		0.183
4/8/2020		0.153
7/14/2020		0.193

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	0.212 (J)	
6/21/2016	0.211 (J)	
10/12/2017	0.22	
10/13/2017	0.23	
10/14/2017	0.22	
10/15/2017	0.22	
10/16/2017	0.22	
10/17/2017	0.21	
11/16/2017	0.22	
2/14/2018	0.21 (D)	
5/23/2018	0.21	
11/20/2018	0.21	
5/15/2019	0.192	
10/9/2019		0.189
4/8/2020		0.192
7/15/2020		0.196

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	1490	
6/20/2016	1420	
8/8/2016	1460	
8/24/2016	1450	
10/3/2016	1460	
10/26/2016	1330	
11/21/2016	1420	
1/17/2017	1350	
3/22/2017	1500	
4/18/2017	1300	
5/30/2017	1400	
8/23/2017	1500	
5/22/2018	2100	
6/12/2018	1500	
10/17/2018	1400	
11/19/2018	1300	
4/10/2019	1700	
5/14/2019	1560	
10/8/2019		1540
10/16/2019		1680
4/6/2020		1530
7/13/2020		1450

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	745	
6/20/2016	964	
8/8/2016	1100	
8/24/2016	1130	
10/3/2016	1140	
10/26/2016	1060	
11/21/2016	1100	
1/17/2017	1160	
3/22/2017	900	
4/18/2017	870	
5/31/2017	1100	
8/23/2017	920	
5/22/2018	1200	
6/12/2018	860	
10/17/2018	970	
11/19/2018	1000	
4/10/2019	889	
5/14/2019	948	
10/8/2019		1230
10/16/2019		1170
4/6/2020		786
7/13/2020		843

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	1890	
6/22/2016	2100	
8/9/2016	2050	
8/24/2016	2190	
10/4/2016	1950	
10/26/2016	1980	
11/21/2016	2060	
1/18/2017	2620	
3/22/2017	3200	
4/18/2017	2500	
5/31/2017	2800	
8/23/2017	2600	
5/24/2018	2700	
6/12/2018	2500	
10/17/2018	2700	
11/19/2018	3000	
4/10/2019	2460	
5/14/2019	2460	
10/8/2019		2950
10/16/2019		2820
4/6/2020		1670
7/13/2020		2130

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	2260	
6/20/2016	2500	
8/9/2016	2750	
8/24/2016	2770	
10/3/2016	3060	
10/26/2016	2650	
11/21/2016	2720	
1/18/2017	2650	
3/22/2017	2700	
4/18/2017	2400	
5/31/2017	2700	
8/23/2017	2700	
5/23/2018	2400	
6/12/2018	2600	
10/17/2018	2600	
11/19/2018	2400	
4/10/2019	2090	
5/14/2019	2240	
10/10/2019		2690
10/16/2019		3050
4/6/2020		1810
7/14/2020		1970

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	2390	
6/21/2016	2500	
10/12/2017	2300	
10/13/2017	2300	
10/14/2017	2300	
10/15/2017	2300	
10/16/2017	2300	
10/17/2017	2200	
11/16/2017	2200	
5/23/2018	2400	
11/20/2018	2500	
5/14/2019	2380	
10/10/2019		2460
4/7/2020		2050
7/14/2020		2080

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	2090	
6/21/2016	2000	
10/12/2017	2000	
10/13/2017	2000	
10/14/2017	1900	
10/15/2017	1900	
10/16/2017	1900	
10/17/2017	1900	
11/16/2017	1800	
5/23/2018	2000	
11/20/2018	2200	
5/15/2019	2110	
10/10/2019		2330
4/8/2020		1900
7/14/2020		1970

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	1050	
6/21/2016	1410	
10/12/2017	1400	
10/13/2017	1400	
10/14/2017	1300	
10/15/2017	1300	
10/16/2017	1300	
10/17/2017	1300	
11/16/2017	1300	
5/23/2018	1900 (O)	
11/20/2018	1100	
5/15/2019	1510	
10/8/2019		1570
4/8/2020		1270
7/14/2020		1330

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	1550	
6/21/2016	1470	
10/12/2017	1400	
10/13/2017	1600	
10/14/2017	1400	
10/15/2017	1400	
10/16/2017	1400	
10/17/2017	1400	
11/16/2017	1400	
5/23/2018	2100	
11/20/2018	1400	
5/15/2019	1640	
10/9/2019		1550
4/8/2020		1380
7/15/2020		1410

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-1	MW-1
4/26/2016	2080 (D)	
6/20/2016	2060 (D)	
8/8/2016	2070 (D)	
8/24/2016	2040	
10/3/2016	2110 (D)	
10/26/2016	2000	
11/21/2016	2070 (D)	
1/17/2017	1930 (D)	
3/22/2017	2060 (D)	
4/18/2017	2140	
5/30/2017	2240 (D)	
8/23/2017	2160 (D)	
5/22/2018	2380 (D)	
6/12/2018	2400	
10/17/2018	2220	
11/19/2018	2360	
4/10/2019	2630	
5/14/2019	2340 (D)	
10/8/2019		2330
10/16/2019		3650
4/6/2020		2240
7/13/2020		2240

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-2	MW-2
4/25/2016	1260 (D)	
6/20/2016	1620 (D)	
8/8/2016	1740 (D)	
8/24/2016	1720	
10/3/2016	1800 (D)	
10/26/2016	1800	
11/21/2016	1740 (D)	
1/17/2017	1960 (D)	
3/22/2017	1510 (D)	
4/18/2017	1580	
5/31/2017	1730 (D)	
8/23/2017	1550 (D)	
5/22/2018	1500 (D)	
6/12/2018	1550	
10/17/2018	1740	
11/19/2018	1990	
4/10/2019	1250	
5/14/2019	1480	
10/8/2019		1840
10/16/2019		1830
4/6/2020		1440
7/13/2020		1540

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-3	MW-3
4/25/2016	2720 (D)	
6/22/2016	3250 (D)	
8/9/2016	3050 (D)	
8/24/2016	3080	
10/4/2016	2900 (D)	
10/26/2016	2940	
11/21/2016	3090 (D)	
1/18/2017	4020 (D)	
3/22/2017	4180 (D)	
4/18/2017	4440	
5/31/2017	3970 (D)	
8/23/2017	4050 (D)	
5/24/2018	3680 (D)	
6/12/2018	3820	
10/17/2018	4730	
11/19/2018	4710	
4/10/2019	3680	
5/14/2019	3580 (D)	
10/8/2019		4720
10/16/2019		4210
4/6/2020		2630
7/13/2020		3650

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-4	MW-4
4/25/2016	3300 (D)	
6/20/2016	3870 (D)	
8/9/2016	4140 (D)	
8/24/2016	4190	
10/3/2016	4190 (D)	
10/26/2016	4400	
11/21/2016	4230 (D)	
1/18/2017	4120 (D)	
3/22/2017	3980 (D)	
4/18/2017	3880	
5/31/2017	4210 (D)	
8/23/2017	3990 (D)	
5/23/2018	3740 (D)	
6/12/2018	4080	
10/17/2018	4250	
11/19/2018	3920	
4/10/2019	3280	
5/14/2019	3130 (D)	
10/10/2019		4000
10/16/2019		4060
4/6/2020		2820
7/14/2020		3310

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-5	MW-5
4/25/2016	3660	
6/21/2016	3920	
10/12/2017	4000	
10/13/2017	3960	
10/14/2017	3910	
10/15/2017	3890	
10/16/2017	3980	
10/17/2017	3940	
11/16/2017	3930	
5/23/2018	3660	
11/20/2018	3780	
5/14/2019	3520	
10/10/2019		3830
4/7/2020		3270
7/14/2020		3710

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-6	MW-6
4/27/2016	3290	
6/21/2016	3250	
10/12/2017	3220	
10/13/2017	3250	
10/14/2017	3260	
10/15/2017	3260	
10/16/2017	3360	
10/17/2017	3420	
11/16/2017	3280	
5/23/2018	3340	
11/20/2018	3330	
5/15/2019	3130	
10/10/2019		3260
4/8/2020		2940
7/14/2020		3270

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-7	MW-7
4/27/2016	1640	
6/21/2016	2460	
10/12/2017	2460	
10/13/2017	2420	
10/14/2017	2320	
10/15/2017	1150	
10/16/2017	2320	
10/17/2017	2360	
11/16/2017	2460	
5/23/2018	2390	
11/20/2018	2090	
5/15/2019	2310	
10/8/2019		2340
4/8/2020		2230
7/14/2020		2210

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/12/2020 3:16 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

	MW-8	MW-8
4/27/2016	2480	
6/21/2016	2360	
10/12/2017	2530	
10/13/2017	2740	
10/14/2017	2630	
10/15/2017	2530	
10/16/2017	2740	
10/17/2017	2650	
11/16/2017	2650	
5/23/2018	2750	
11/20/2018	2520	
5/15/2019	2540	
10/9/2019		2590
4/8/2020		2450
7/15/2020		2460

FIGURE F.

Trend Tests Summary Table - Prediction Limit Exceedances - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:40 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH, Field (SU)	**MW-8**	**0.06**	**80**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests Summary Table - Prediction Limit Exceedances - All Results

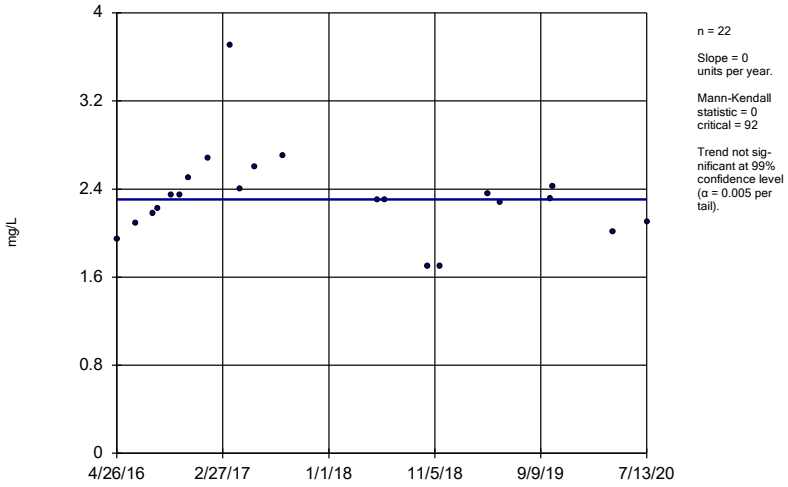
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/12/2020, 3:40 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride, Total (mg/L)	MW-1 (bg)	0	0	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-2 (bg)	0.1677	24	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-3 (bg)	0.02528	26	92	No	22	9.091	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-4 (bg)	-0.05046	-45	-92	No	22	4.545	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-5	-0.07458	-12	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-7	-5.329	-10	-53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	MW-8	-38.53	-35	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-1 (bg)	-0.01151	-57	-92	No	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-2 (bg)	0.03795	66	92	No	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-3 (bg)	-0.1298	-47	-98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-4 (bg)	0.01825	74	98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-5	0.01058	32	58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	MW-7	-0.01209	-24	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (SU)	**MW-8**	**0.06**	**80**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-1 (bg)



n = 22

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 92

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

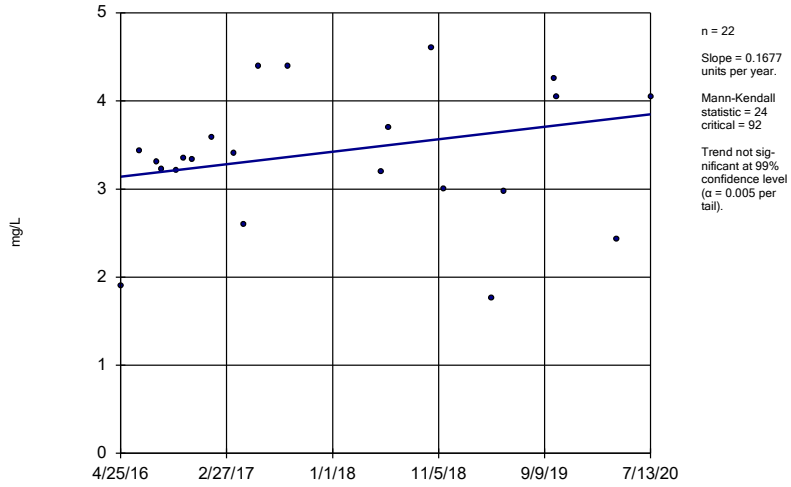
Constituent: Chloride, Total Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-2 (bg)



n = 22

Slope = 0.1677 units per year.

Mann-Kendall statistic = 24 critical = 92

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, Total Analysis Run 10/12/2020 3:37 PM View: Appendix III

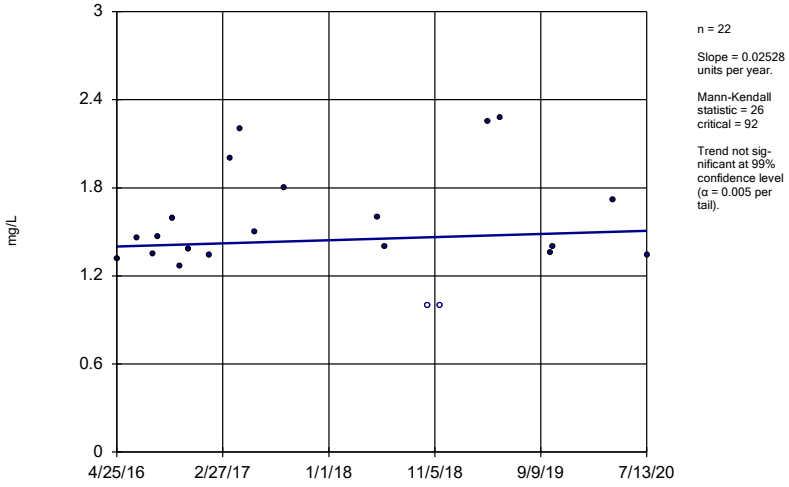
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 22

Slope = 0.02528 units per year.

Mann-Kendall statistic = 26 critical = 92

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, Total Analysis Run 10/12/2020 3:37 PM View: Appendix III

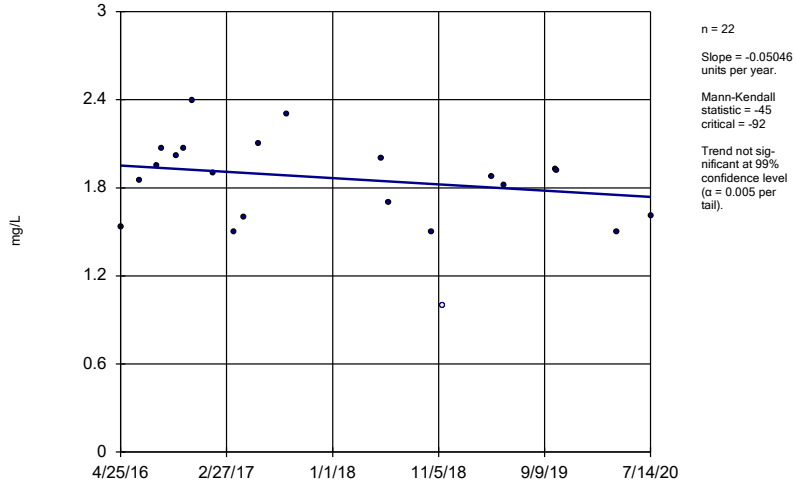
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)



n = 22

Slope = -0.05046 units per year.

Mann-Kendall statistic = -45 critical = -92

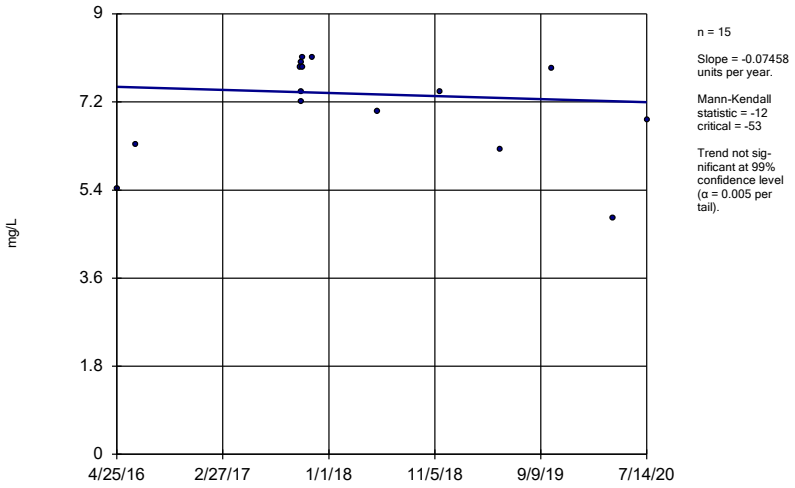
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, Total Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sen's Slope Estimator

MW-5



n = 15

Slope = -0.07458 units per year.

Mann-Kendall statistic = -12 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

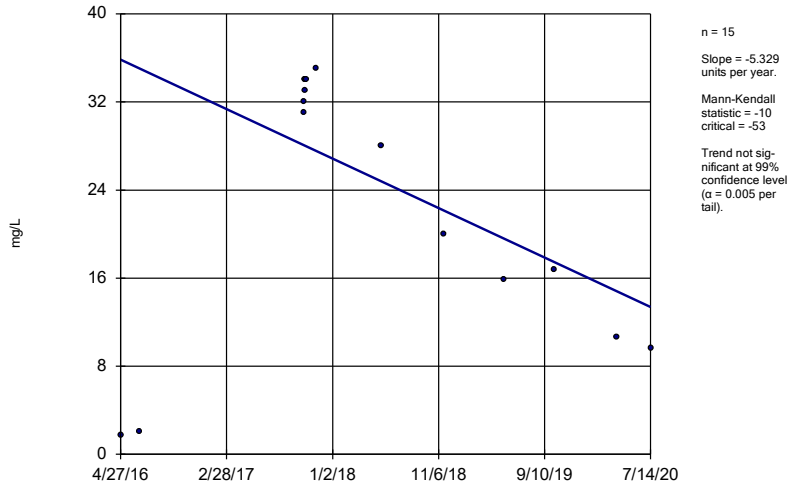
Constituent: Chloride, Total Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-7



n = 15

Slope = -5.329 units per year.

Mann-Kendall statistic = -10 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

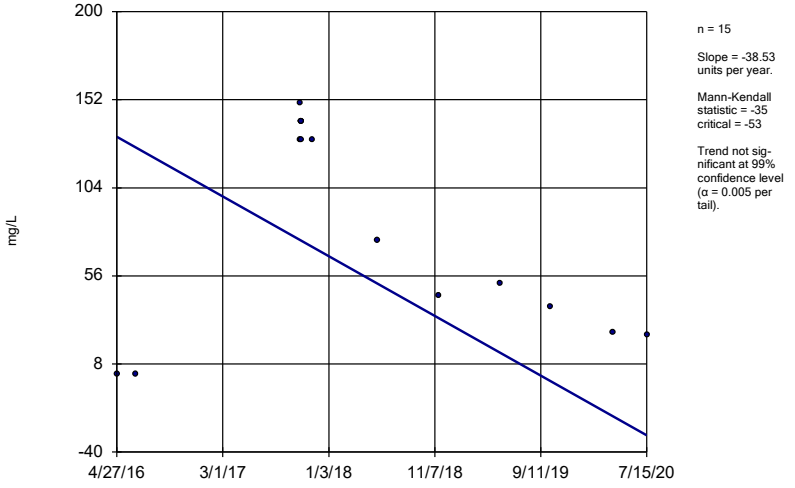
Constituent: Chloride, Total Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-8



n = 15

Slope = -38.53 units per year.

Mann-Kendall statistic = -35 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

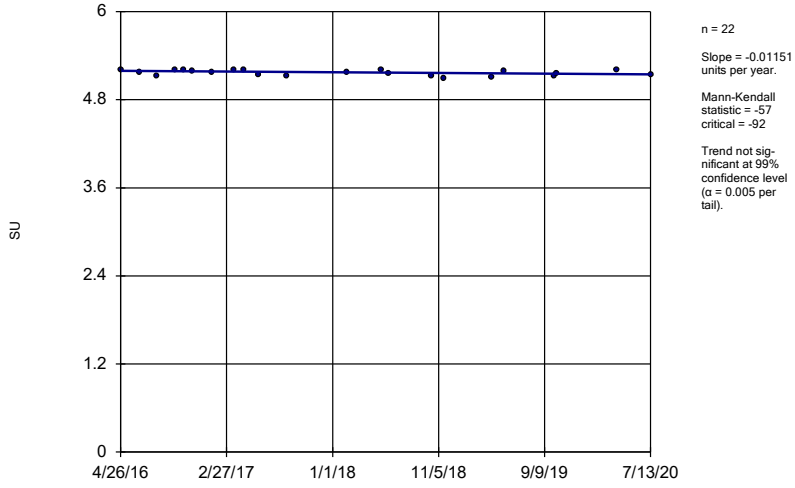
Constituent: Chloride, Total Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-1 (bg)



n = 22

Slope = -0.01151 units per year.

Mann-Kendall statistic = -57 critical = -92

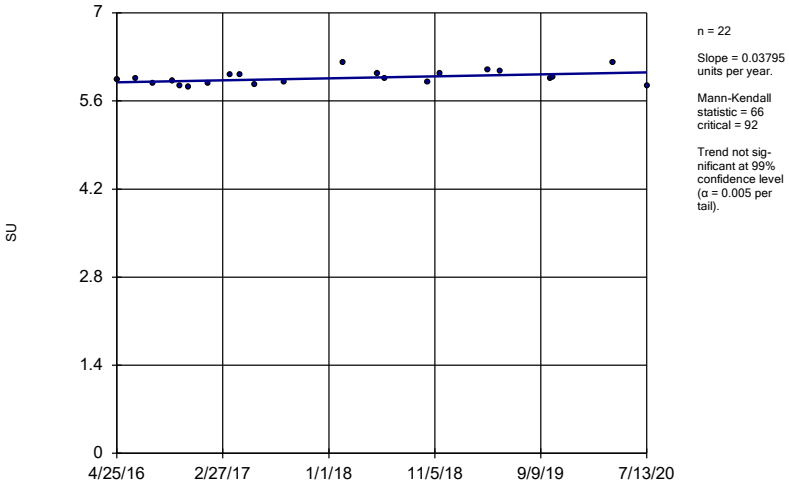
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sen's Slope Estimator

MW-2 (bg)



n = 22

Slope = 0.03795 units per year.

Mann-Kendall statistic = 66
critical = 92

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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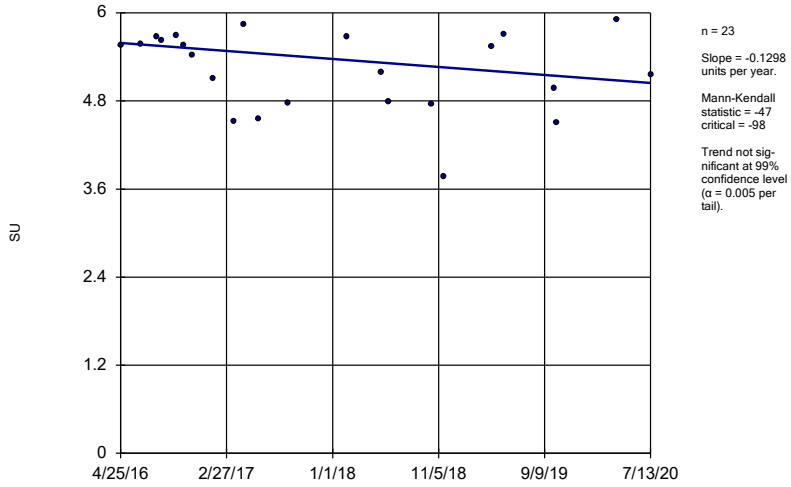
Sen's Slope Estimator

MW-3 (bg)



n = 23

Slope = -0.1298 units per year.

Mann-Kendall statistic = -47
critical = -98

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

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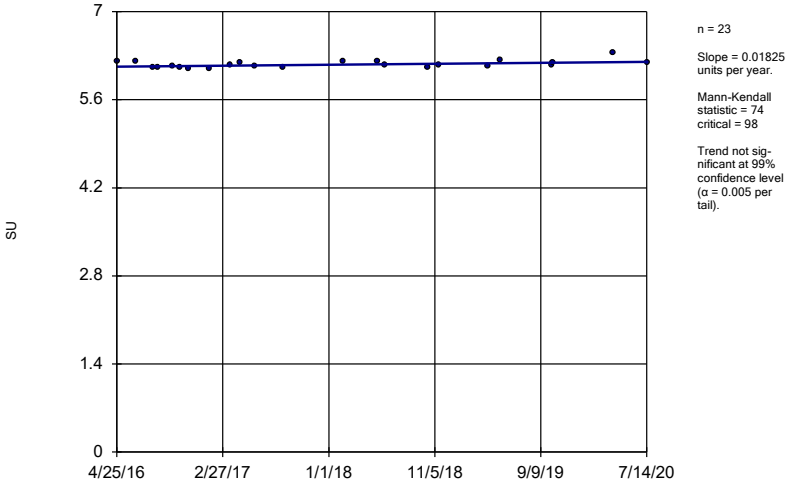
Sen's Slope Estimator

MW-4 (bg)



n = 23

Slope = 0.01825 units per year.

Mann-Kendall statistic = 74
critical = 98

Trend not significant at 99% confidence level (α = 0.005 per tail).

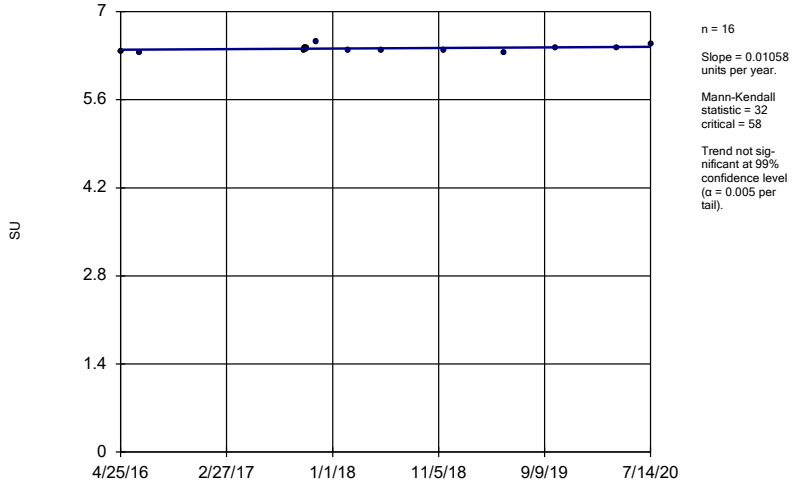
Constituent: pH, Field Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-5



n = 16

Slope = 0.01058 units per year.

Mann-Kendall statistic = 32
critical = 58

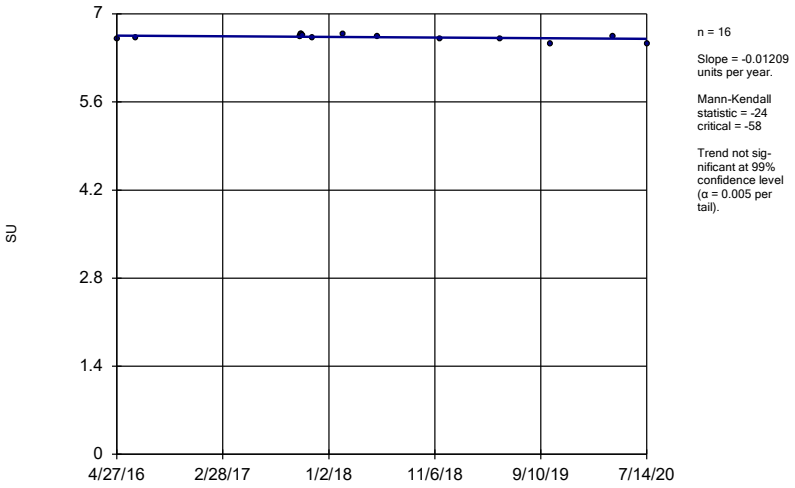
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sen's Slope Estimator

MW-7



n = 16

Slope = -0.01209 units per year.

Mann-Kendall statistic = -24
critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

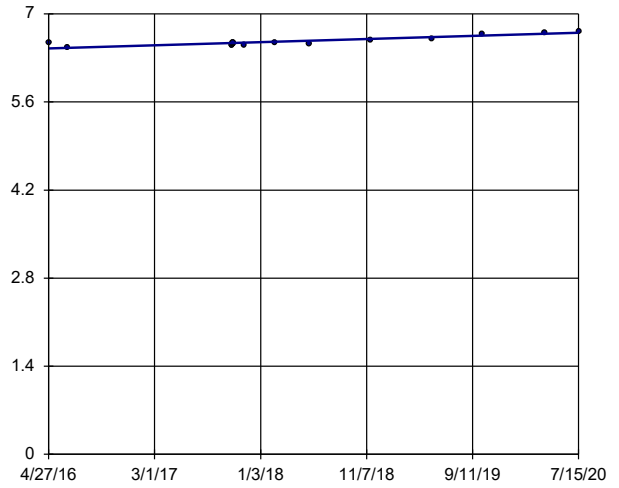
Constituent: pH, Field Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-8



n = 16

Slope = 0.06 units per year.

Mann-Kendall statistic = 80
critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 10/12/2020 3:37 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

FIGURE G.

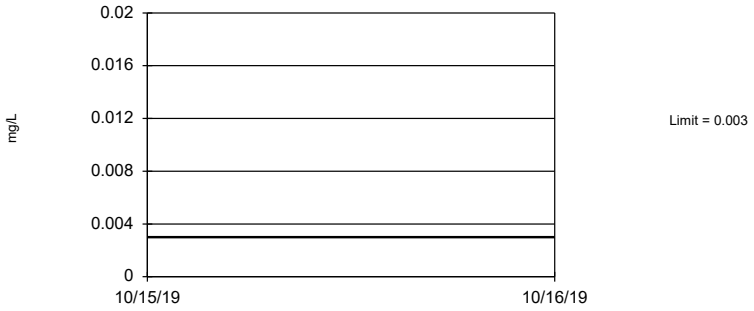
Upper Tolerance Limits - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 7/22/2020, 10:42 AM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	80	n/a	n/a	92.5	n/a	n/a	0.01652	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	80	n/a	n/a	91.25	n/a	n/a	0.01652	NP Inter(NDs)
Barium (mg/L)	0.01527	n/a	80	-4.517	0.1705	0	None	ln(x)	0.05	Inter
Beryllium (mg/L)	0.0121	n/a	78	n/a	n/a	82.05	n/a	n/a	0.0183	NP Inter(NDs)
Cadmium (mg/L)	0.00598	n/a	79	n/a	n/a	49.37	n/a	n/a	0.01738	NP Inter(normal...
Chromium (mg/L)	0.0105	n/a	80	n/a	n/a	95	n/a	n/a	0.01652	NP Inter(NDs)
Cobalt (mg/L)	1.07	n/a	80	n/a	n/a	25	n/a	n/a	0.01652	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	1.098	n/a	76	0.4542	0.3266	0	None	No	0.05	Inter
Fluoride (mg/L)	0.5302	n/a	84	0.4636	0.1353	0	None	sqrt(x)	0.05	Inter
Lead (mg/L)	0.00692	n/a	80	n/a	n/a	96.25	n/a	n/a	0.01652	NP Inter(NDs)
Lithium (mg/L)	0.419	n/a	80	n/a	n/a	0	n/a	n/a	0.01652	NP Inter(normal...
Mercury (mg/L)	0.0005	n/a	80	n/a	n/a	100	n/a	n/a	0.01652	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	80	n/a	n/a	100	n/a	n/a	0.01652	NP Inter(NDs)
Selenium (mg/L)	0.0158	n/a	79	n/a	n/a	67.09	n/a	n/a	0.01738	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	80	n/a	n/a	96.25	n/a	n/a	0.01652	NP Inter(NDs)

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 92.5% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Antimony Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

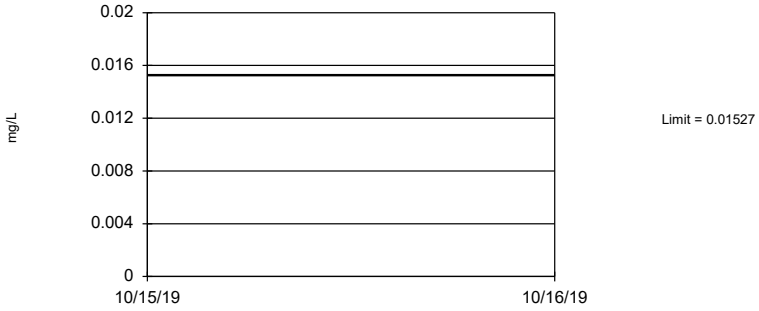
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 91.25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Arsenic Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Parametric



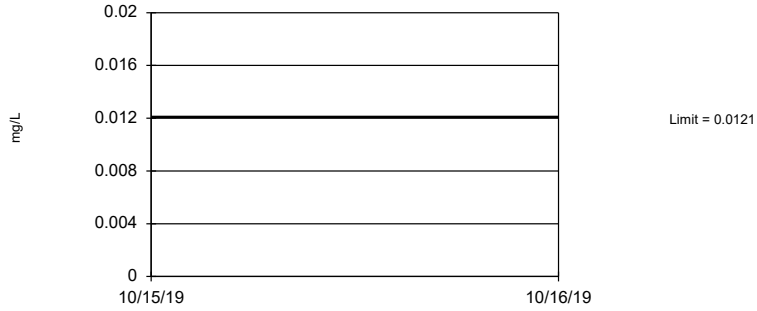
95% coverage. Background Data Summary (based on natural log transformation): Mean=-4.517, Std. Dev.=0.1705, n=80. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9594, critical = 0.957. Report alpha = 0.05.

Constituent: Barium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 78 background values. 82.05% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0183.

Constituent: Beryllium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 79 background values. 49.37% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01738.

Constituent: Cadmium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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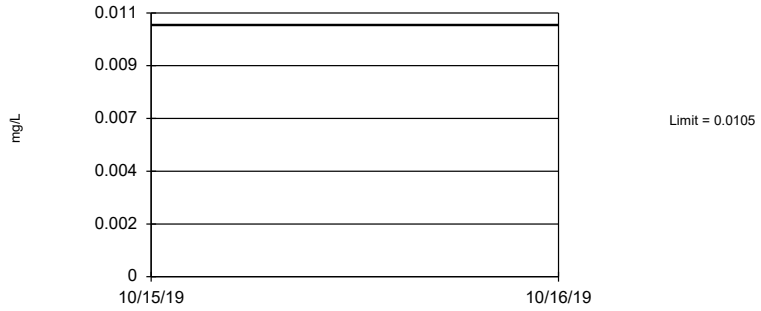
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 95% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Chromium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

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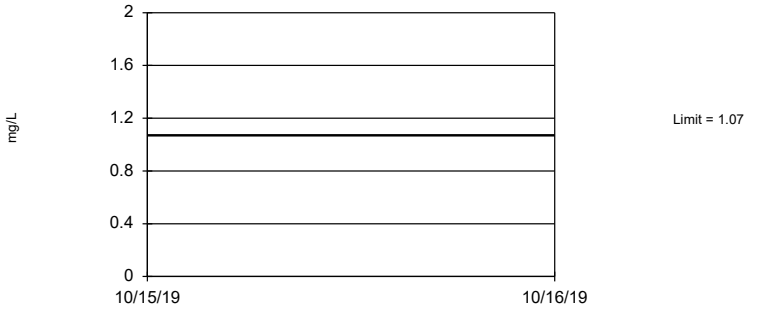
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

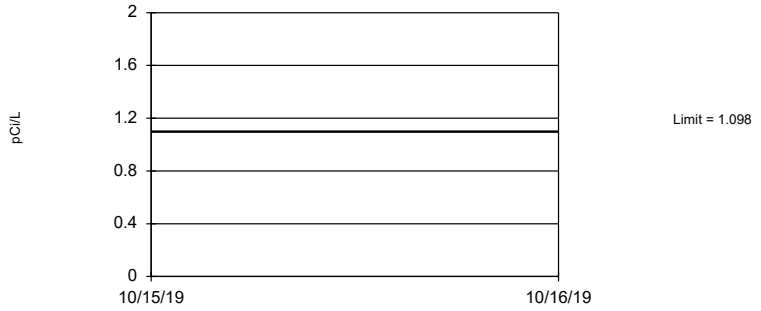
Constituent: Cobalt Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Parametric



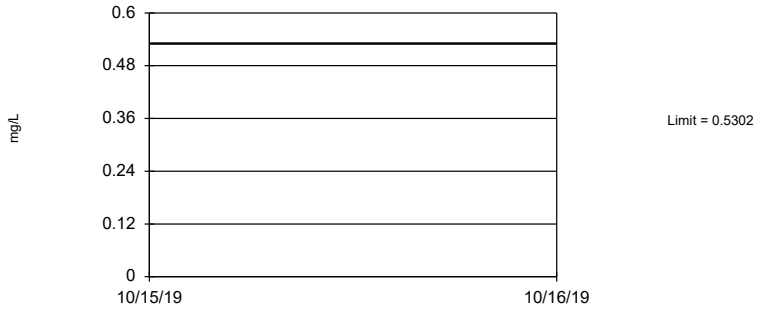
95% coverage. Background Data Summary: Mean=0.4542, Std. Dev.=0.3266, n=76. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9823, critical = 0.957. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Parametric



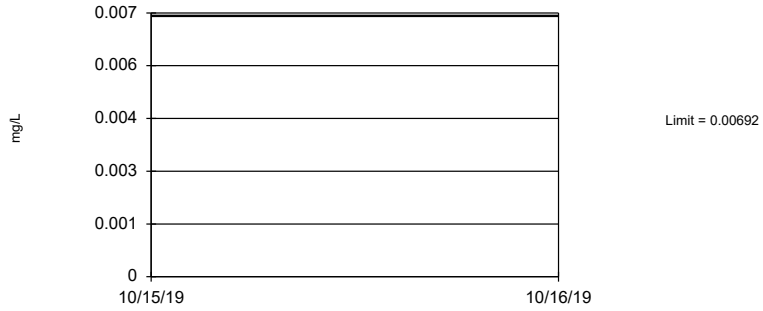
95% coverage. Background Data Summary (based on square root transformation): Mean=0.4636, Std. Dev.=0.1353, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9797, critical = 0.96. Report alpha = 0.05.

Constituent: Fluoride Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



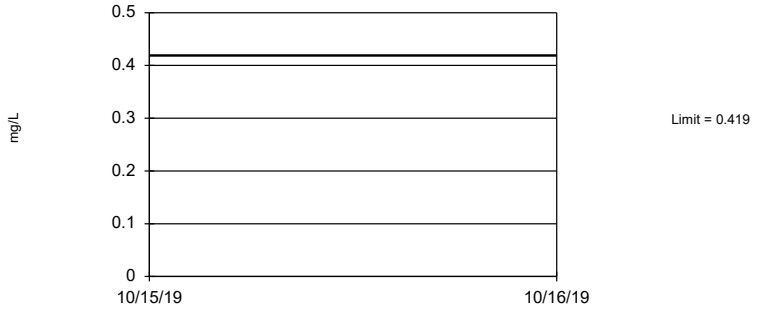
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 96.25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Lead Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



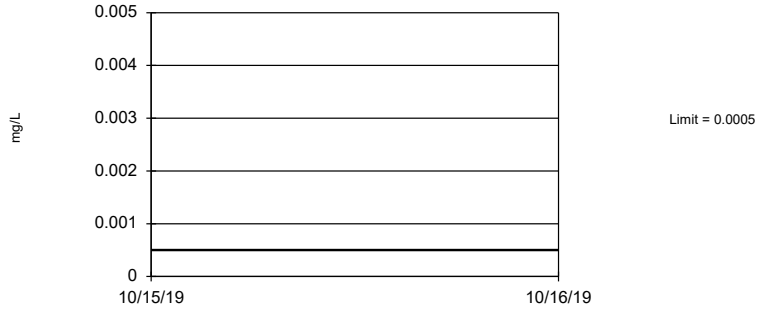
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Lithium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Mercury Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Molybdenum Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric

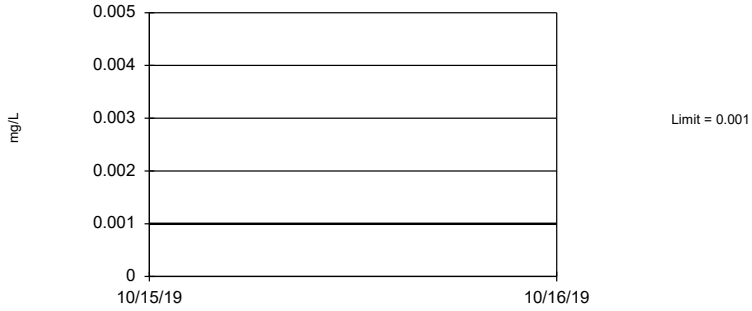
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 79 background values. 67.09% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01738.

Constituent: Selenium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 96.25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Thallium Analysis Run 7/22/2020 10:41 AM View: UTL's - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas CCR LF

FIGURE H.

GORGAS CCR LANDFILL GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.01527	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00598	0.005
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	1.07	1.07
Combined Radium-226/228	pCi/L	1.098	5
Fluoride	mg/L	0.5302	4
Lead	mg/L	0.00692	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.0158	0.05
Thallium	mg/L	0.001	0.002

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.

4. GWPS established during second semi-annual sampling event in 2019.

FIGURE I.

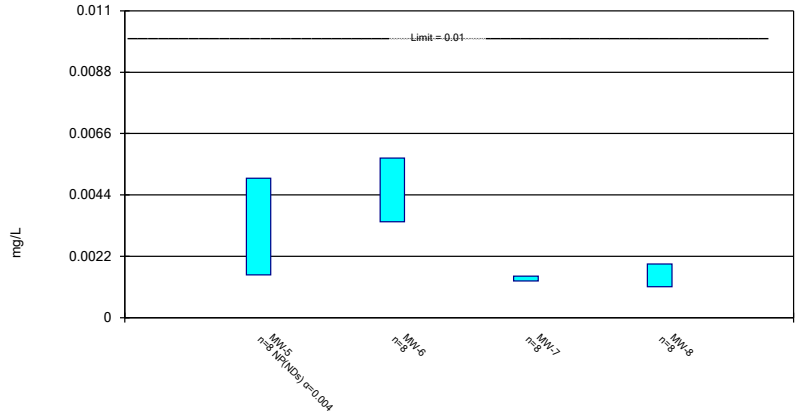
Confidence Intervals Summary Table - All Results (No Significant Results)

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF Printed 10/19/2020, 12:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MW-5	0.005	0.00153	0.01	No	8	0.004145	0.001583	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-6	0.005719	0.003438	0.01	No	8	0.004579	0.001076	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-7	0.001489	0.001319	0.01	No	8	0.001404	0.00008035	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001921	0.001104	0.01	No	8	0.001513	0.0003856	0	None	No	0.01	Param.
Barium (mg/L)	MW-5	0.01325	0.01002	2	No	8	0.01164	0.001525	0	None	No	0.01	Param.
Barium (mg/L)	MW-6	0.01505	0.01232	2	No	8	0.01369	0.001288	0	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.01421	0.01142	2	No	8	0.01281	0.001314	0	None	No	0.01	Param.
Barium (mg/L)	MW-8	0.01398	0.01229	2	No	8	0.01314	0.0007981	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-6	0.003	0.000677	0.004	No	8	0.002433	0.00105	75	None	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-6	0.00204	0.000858	0.005	No	8	0.001112	0.0003781	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-6	0.479	0.0274	1.07	No	8	0.1262	0.1634	0	None	No	0.004	NP (normality)
Cobalt (mg/L)	MW-7	0.005294	0.002523	1.07	No	8	0.004181	0.001311	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.00808	0.004448	1.07	No	8	0.006264	0.001713	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-5	0.853	0.3565	5	No	8	0.6048	0.2342	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-6	1.503	0.4207	5	No	8	0.9619	0.5105	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-7	0.6537	0.1836	5	No	8	0.4187	0.2218	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-8	0.9508	0.1058	5	No	8	0.5283	0.3986	0	None	No	0.01	Param.
Fluoride, total (mg/L)	MW-5	0.3524	0.2366	4	No	8	0.2945	0.05464	0	None	No	0.01	Param.
Fluoride, total (mg/L)	MW-6	0.1405	0.1063	4	No	8	0.1203	0.02954	12.5	None	x^4	0.01	Param.
Fluoride, total (mg/L)	MW-7	0.1918	0.1652	4	No	8	0.1785	0.01259	0	None	No	0.01	Param.
Fluoride, total (mg/L)	MW-8	0.2145	0.1902	4	No	8	0.2024	0.01146	0	None	No	0.01	Param.
Lithium (mg/L)	MW-5	0.1203	0.09371	0.419	No	8	0.107	0.01253	0	None	No	0.01	Param.
Lithium (mg/L)	MW-6	0.2651	0.1686	0.419	No	8	0.2096	0.07375	0	None	x^3	0.01	Param.
Lithium (mg/L)	MW-7	0.1325	0.1125	0.419	No	8	0.1225	0.009442	0	None	No	0.01	Param.
Lithium (mg/L)	MW-8	0.1885	0.153	0.419	No	8	0.1708	0.01678	0	None	No	0.01	Param.
Selenium (mg/L)	MW-5	0.01	0.00288	0.05	No	8	0.00911	0.002517	87.5	None	No	0.004	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

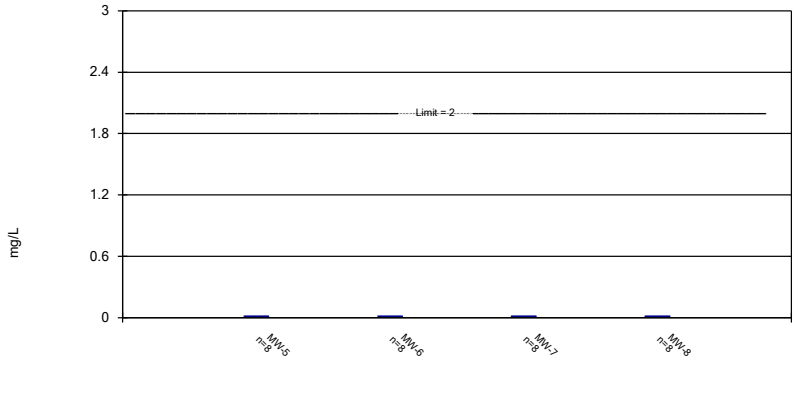


Constituent: Arsenic Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 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.

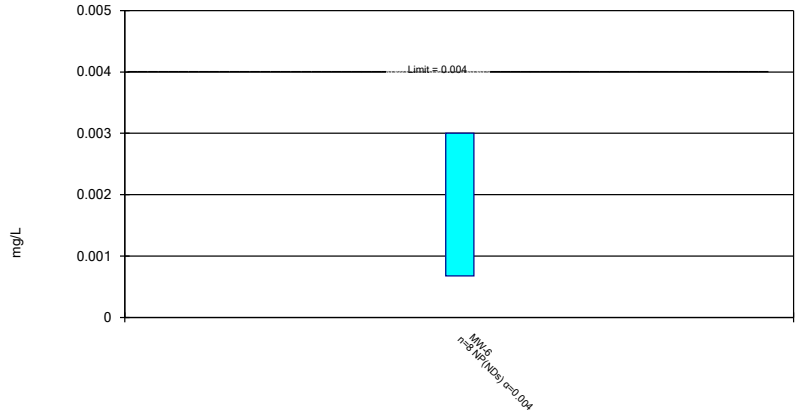


Constituent: Barium Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

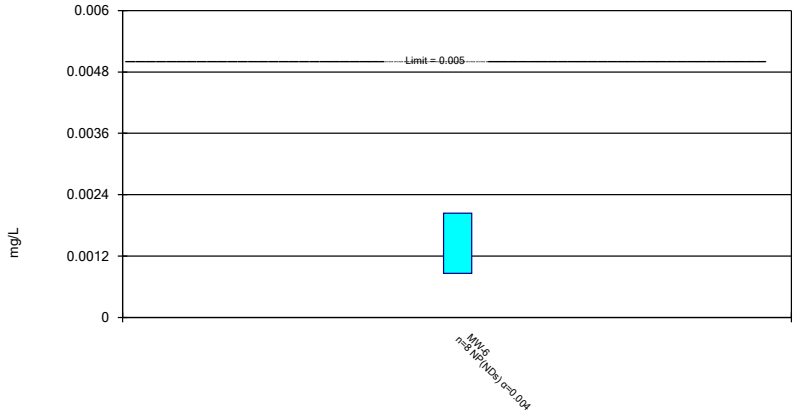


Constituent: Beryllium Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

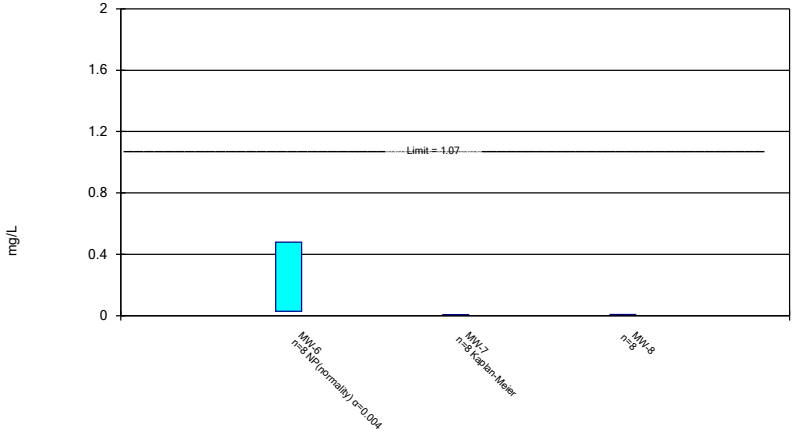
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Parametric and Non-Parametric (NP) Confidence Interval

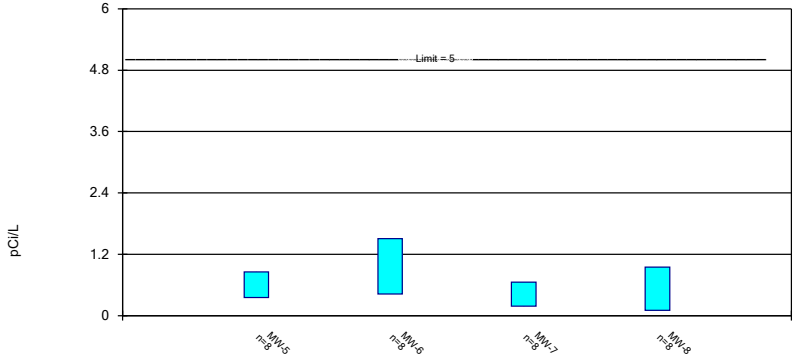
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Parametric Confidence Interval

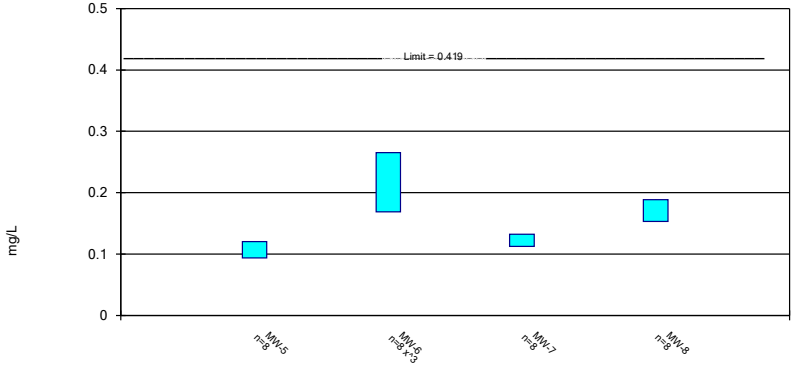
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Parametric Confidence Interval

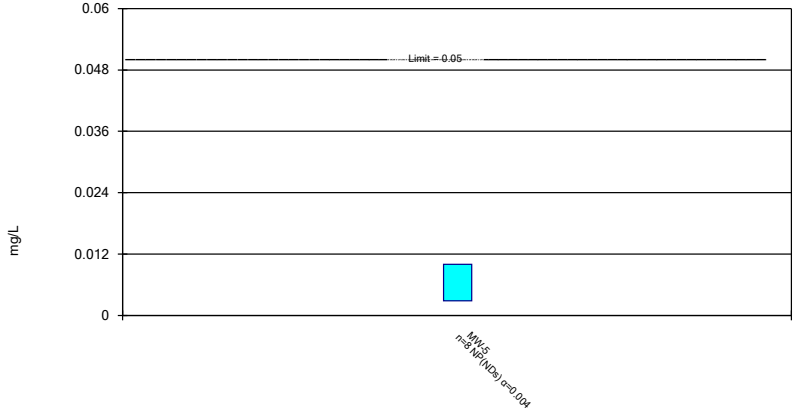
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Non-Parametric Confidence Interval

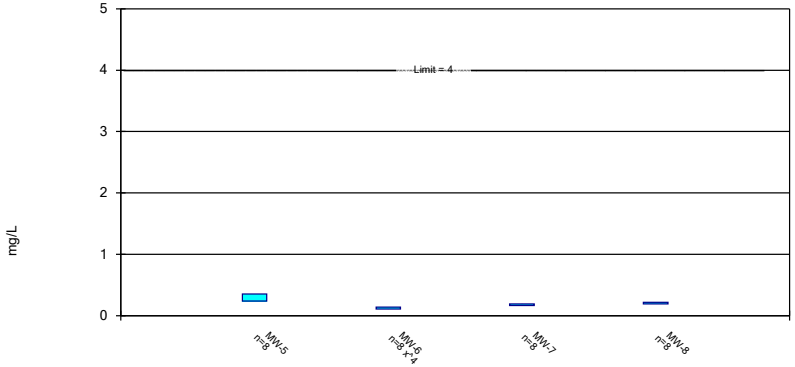
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 10/19/2020 12:06 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 10/19/2020 12:07 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas CCR LF

Appendix D

MNA Sampling Field Data

Well ID	pH	ORP (mV)	Conductivity (µS/cm)	DO (mg/L)	Temperature (°C)	Turbidity (NTU)	Depth to Water (feet)
MW-1	5.13	96	2541.6	0.86	18.97	0.22	91.4
MW-2	6.16	36.3	1694	0.26	18.52	0.47	81.8
MW-3	5.63	127.2	3809.1	6.14	17.14	1.81	104.45
MW-4	6.42	92.3	3170.5	4.9	20.42	0.64	115.18
MW-6	5.72	79.1	2670.6	1.23	20.22	0.82	83.45
MW-12	5.75	2.9	2847.3	0.52	22.13	3.43	153.65
MW-13	6.63	48.7	1668.3	3.49	19.86	0.34	93.55
MW-14	6.32	24.8	2444.6	0.19	18.7	0.95	88.95
MW-15	6.15	6.1	2045.4	0.16	18.91	3.26	67.55
MW-20	6.5	58	2869.8	0.14	17.59	0.97	22.09

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWGORLF_1261

Project/Site : Gorgas Landfill
Parrish, AL 35580

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Brooks, Dyer, Redwine, Mitchell, & Vlassopoulos

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

March 18, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between February 13, 2020 and February 14, 2020. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2020

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

Sincerely,

Quality Control: Laura Midkiff
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.03.18 13:20:33 -05'00'

Supervision: T. Durant Maske
Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.03.18 15:23:05 -05'00'

REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICP

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	666590	WMWGORLF_1261
BA03029	666590	WMWGORLF_1261
BA03030	666590	WMWGORLF_1261
BA03031	666590	WMWGORLF_1261
BA03032	666590	WMWGORLF_1261
BA03033	666590	WMWGORLF_1261
BA03034	666590	WMWGORLF_1261
BA03145	666590	WMWGORLF_1261
BA03146	666590	WMWGORLF_1261
BA03147	666590	WMWGORLF_1261
BA03148	666591	WMWGORLF_1261
BA03149	666591	WMWGORLF_1261
BA03150	666591	WMWGORLF_1261

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.

- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
    - BA03147 MS/MSD spike level is less than 30% of the sample nominal concentration for Calcium, Magnesium, and Sodium.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA03028	Calcium, Iron, Magnesium, Sodium	50.75
BA03029	Calcium, Magnesium	10.15
BA03030	Calcium, Magnesium	20.3
BA03031	Calcium, Iron, Magnesium	10.15
BA03032	Calcium, Magnesium	10.15
BA03033	Calcium, Iron, Magnesium	10.15
BA03034	Calcium, Magnesium	101.5
BA03145	Calcium, Magnesium, Sodium	20.3
BA03146	Calcium, Magnesium	10.15
BA03147	Calcium, Magnesium, Sodium	50.75
BA03148	Calcium, Iron, Magnesium, Sodium	50.75

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICP

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	666430	WMWGORLF_1261
BA03029	666430	WMWGORLF_1261
BA03030	666430	WMWGORLF_1261
BA03031	666430	WMWGORLF_1261
BA03032	666430	WMWGORLF_1261
BA03033	666430	WMWGORLF_1261
BA03034	666430	WMWGORLF_1261
BA03145	666430	WMWGORLF_1261
BA03146	666430	WMWGORLF_1261
BA03147	666430	WMWGORLF_1261
BA03148	666431	WMWGORLF_1261

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.

Revision 4

- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA03028	Iron	101.5
BA03031	Iron	10.15
BA03033	Iron	10.15
BA03148	Iron	10.15

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICPMS

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	666748	WMWGORLF_1261
BA03029	666748	WMWGORLF_1261
BA03030	666748	WMWGORLF_1261
BA03031	666748	WMWGORLF_1261
BA03032	666748	WMWGORLF_1261
BA03033	666748	WMWGORLF_1261
BA03034	666748	WMWGORLF_1261
BA03145	666748	WMWGORLF_1261
BA03146	666748	WMWGORLF_1261
BA03147	666748	WMWGORLF_1261
BA03148	666749	WMWGORLF_1261
BA03149	666749	WMWGORLF_1261
BA03150	666749	WMWGORLF_1261

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
    - BA03147 MS/MSD spike level for manganese was less than 30% of the sample nominal concentration.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA03028	Manganese	92.365
BA03029	Manganese	5.075
BA03030	Manganese	5.075
BA03031	Manganese	10.15
BA03032	Manganese	5.075
BA03033	Manganese	92.365
BA03145	Manganese	10.15
BA03146	Manganese	5.075
BA03147	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	666656	WMWGORLF_1261
BA03029	666656	WMWGORLF_1261
BA03030	666656	WMWGORLF_1261
BA03031	666656	WMWGORLF_1261
BA03032	666656	WMWGORLF_1261
BA03033	666656	WMWGORLF_1261
BA03034	666656	WMWGORLF_1261
BA03145	666656	WMWGORLF_1261
BA03146	666656	WMWGORLF_1261
BA03147	666656	WMWGORLF_1261
BA03148	666657	WMWGORLF_1261

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.

- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA03028	Manganese	92.365
BA03029	Manganese	5.075
BA03030	Manganese	5.075
BA03031	Manganese	10.15
BA03032	Manganese	5.075
BA03033	Manganese	92.365
BA03145	Manganese	10.15
BA03146	Manganese	5.075
BA03147	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Anions

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	666407, 666409, & 666713	WMWGORLF_1261
BA03029	666407, 666409, & 666713	WMWGORLF_1261
BA03030	666407, 666409, & 666713	WMWGORLF_1261
BA03031	666407, 666409, & 666713	WMWGORLF_1261
BA03032	666407, 666409, & 666713	WMWGORLF_1261
BA03033	666407, 666409, & 666713	WMWGORLF_1261
BA03034	666407, 666409, & 666713	WMWGORLF_1261
BA03145	666414, 666416, & 666717	WMWGORLF_1261
BA03146	666414, 666416, & 666717	WMWGORLF_1261
BA03147	666414, 666416, & 666717	WMWGORLF_1261
BA03148	666414, 666416, & 666717	WMWGORLF_1261
BA03149	666414, 666416, & 666717	WMWGORLF_1261
BA03150	666414, 666416, & 666717	WMWGORLF_1261

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA03028	Sulfate	100
BA03029	Sulfate	100
BA03030	Sulfate	100
BA03031	Sulfate	100
BA03032	Sulfate	100
BA03033	Sulfate	100
BA03034	Sulfate	100
BA03145	Sulfate	100
BA03146	Sulfate	100
BA03147	Sulfate	100
BA03148	Sulfate & Chloride	100 & 4

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Alkalinity

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	667321 & 667322	WMWGORLF_1261
BA03029	667321 & 667322	WMWGORLF_1261
BA03030	667321 & 667322	WMWGORLF_1261
BA03031	667321 & 667322	WMWGORLF_1261
BA03032	667321 & 667322	WMWGORLF_1261
BA03033	667321 & 667322	WMWGORLF_1261
BA03034	667321 & 667322	WMWGORLF_1261
BA03145	667321 & 667322	WMWGORLF_1261
BA03146	667321 & 667322	WMWGORLF_1261
BA03147	667321 & 667322	WMWGORLF_1261
BA03148	667321 & 667322	WMWGORLF_1261

4. All of the above samples were analyzed by Standard Method 2320B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Organic Carbon by High Temperature Combustion

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	667002	WMWGORLF_1261
BA03029	667002	WMWGORLF_1261
BA03030	667002	WMWGORLF_1261
BA03031	667002	WMWGORLF_1261
BA03032	667002	WMWGORLF_1261
BA03033	667002	WMWGORLF_1261
BA03034	667002	WMWGORLF_1261
BA03145	667002	WMWGORLF_1261
BA03146	667002	WMWGORLF_1261
BA03147	667002	WMWGORLF_1261
BA03148	667003	WMWGORLF_1261
BA03149	667003	WMWGORLF_1261
BA03150	667003	WMWGORLF_1261

4. All of the above samples were analyzed by Standard Method 5310B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria was met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were <1/2RL.
- All continued calibration verification (CCV) were within the acceptance range.
- All continued calibration blanks (CCB) were <1/2RL.
- Matrix Specific QC:
    - A sample duplicate was run and criteria for precision was met.
    - A matrix spike and matrix spike duplicate were run and criteria for accuracy was met, except for the following:
        - BA03147 MSD recovery was outside of the specification limit.

7. All samples were analyzed without a dilution factor.

Revision 4

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Nitrate/Nitrite, Nitrite, and ortho-Phosphate

Gorgas Landfill

WMWGORLF_1261

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA03028	666327, 666326, & 666325	WMWGORLF_1261
BA03029	666327, 666326, & 666325	WMWGORLF_1261
BA03030	666327, 666326, & 666325	WMWGORLF_1261
BA03031	666327, 666326, & 666325	WMWGORLF_1261
BA03032	666327, 666326, & 666325	WMWGORLF_1261
BA03033	666327, 666326, & 666325	WMWGORLF_1261
BA03034	666327, 666326, & 666325	WMWGORLF_1261
BA03145	666401, 666399, & 666403	WMWGORLF_1261
BA03146	666401, 666399, & 666403	WMWGORLF_1261
BA03147	666401, 666399, & 666403	WMWGORLF_1261
BA03148	666401, 666399, & 666403	WMWGORLF_1261
BA03149	666401, 666399, & 666403	WMWGORLF_1261
BA03150	666401, 666399, & 666403	WMWGORLF_1261

4. All of the above samples were analyzed by NO_x and NO_2 by EPA 353.2 and PO_4 by SM 4500P-F.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.

EPA 353.2 Specific QC:

- For NO_x: Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.
- Matrix Specific QC:
    - A sample duplicate was run and criteria for precision was met.
    - A matrix spike was run and criteria for accuracy was met.

SM 4500P-F Specific QC:

- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below half the limit of quantitation.
- All continued calibration blanks (CCB) were below half the limit of quantitation.
- Matrix Specific QC:
    - A matrix spike was run and criteria for accuracy was met.
    - A matrix spike duplicate was run and criteria for precision was met.

7. All samples were analyzed without a dilution factor.

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-12

Location Code: WMWGORLF
Collected: 2/12/20 15:00
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03028

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:38		1.015	0.317	mg/L	0.03	0.1	
* Calcium, Total	2/18/20 15:15	2/19/20 13:16		50.75	364	mg/L	5.075	25.375	
Silicon, Total	2/18/20 15:15	2/19/20 11:38		1.015	13.5	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 13:16		50.75	160	mg/L	1.015	2.5375	
* Lithium, Total	2/18/20 15:15	2/19/20 11:38		1.015	0.0852	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:16		50.75	356	mg/L	5.075	25.375	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:38		1	28.9	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 13:16		50.75	48.5	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 12:00		101.5	156	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:18		1.015	0.0442	mg/L	0.001	0.005	
* Aluminum, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/14/20 10:25	2/14/20 15:18		1.015	0.0116	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:18		1.015	0.0435	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:21		92.365	19.3	mg/L	0.092365	0.461825	
* Potassium, Total	2/14/20 10:25	2/14/20 15:18		1.015	19.9	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 15:18		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	0.0476	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-12

Location Code: WMWGORLF
Collected: 2/12/20 15:00
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03028

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	0.0444	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:01		92.365	19.7	mg/L	0.092365	0.461825	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/13/20 14:15	2/13/20 14:15		1	0.313	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/13/20 14:49	2/13/20 14:49		1	0.313	mg/L as N			
Nitrogen, Nitrite	2/13/20 14:49	2/13/20 14:49		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	260	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	260	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.03	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/13/20 15:30	2/13/20 15:30		1	0.010	mg/L as P	0.010	0.03	J
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 09:17	2/20/20 09:17		1	4.23	mg/L	1.00	2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 10:23	2/14/20 10:23		1	10.1	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 14:30	2/14/20 14:30		1	0.234	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 14:38	2/17/20 14:38		100	2270	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 15:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-12

Laboratory ID Number: BA03028

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03034	Ortho Phosphate	mg/L as P	0.001	0.015	0.250	0.243	0.244	0.245	0.225 to 0.275	97.2	80 to 120	0.411	10
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 15:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-12

Laboratory ID Number: BA03028

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/12/20 15:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-12

Laboratory ID Number: BA03028

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03034	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	2.60	0.678	2.00	1.8 to 2.2	97.4	90 to 110	3.91	15
BA03034	Chloride	mg/L	-0.0424	0.50	10.0	11.7	1.95	10.2	9 to 11	98.6	80 to 120	5.80	20
BA03034	Nitrogen, Nitrite	mg/L as N	0.001	0.20	0.50	0.533	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03034	Fluoride	mg/L	0.0196	0.05	2.50	2.93	0.369	2.55	2.25 to 2.75	102	80 to 120	1.61	20
BA03034	Sulfate	mg/L	-0.336	0.50	2000	4000	2050	19.4	18 to 22	96.5	80 to 120	0.971	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-13

Location Code: WMWGORLF
Collected: 2/12/20 13:00
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03029

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:41		1.015	0.0537	mg/L	0.03	0.1	J
* Calcium, Total	2/18/20 15:15	2/19/20 13:19		10.15	191	mg/L	1.015	5.075	
Silicon, Total	2/18/20 15:15	2/19/20 11:41		1.015	3.51	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 11:41		1.015	0.101	mg/L	0.02	0.05	
* Lithium, Total	2/18/20 15:15	2/19/20 11:41		1.015	0.0276	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:19		10.15	220	mg/L	1.015	5.075	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:41		1	7.51	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 11:41		1.015	26.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 10:34		1.015	0.0742	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/14/20 10:25	2/14/20 15:21		1.015	0.0100	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:21		1.015	0.00605	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:24		5.075	1.65	mg/L	0.005075	0.025375	
* Potassium, Total	2/14/20 10:25	2/14/20 15:21		1.015	6.74	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:21		1.015	0.00596	mg/L	0.002	0.01	J
* Thallium, Total	2/14/20 10:25	2/14/20 15:21		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-13

Location Code: WMWGORLF
Collected: 2/12/20 13:00
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03029

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	0.00598	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:04		5.075	1.63	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	0.00578	mg/L	0.002	0.01	J
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/13/20 14:17	2/13/20 14:17		1	0.978	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/13/20 14:50	2/13/20 14:50		1	0.978	mg/L as N			
Nitrogen, Nitrite	2/13/20 14:50	2/13/20 14:50		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	224	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	224	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.18	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/13/20 15:31	2/13/20 15:31		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 09:29	2/20/20 09:29		1	2.06	mg/L	1.00	2	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 10:24	2/14/20 10:24		1	1.33	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 14:31	2/14/20 14:31		1	0.254	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 14:40	2/17/20 14:40		100	1150	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-13

Laboratory ID Number: BA03029

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03034	Ortho Phosphate	mg/L as P	0.001	0.015	0.250	0.243	0.244	0.245	0.225 to 0.275	97.2	80 to 120	0.411	10
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-13

Laboratory ID Number: BA03029

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-13

Laboratory ID Number: BA03029

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03034	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	2.60	0.678	2.00	1.8 to 2.2	97.4	90 to 110	3.91	15
BA03034	Nitrogen, Nitrite	mg/L as N	0.001	0.20	0.50	0.533	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03034	Fluoride	mg/L	0.0196	0.05	2.50	2.93	0.369	2.55	2.25 to 2.75	102	80 to 120	1.61	20
BA03034	Sulfate	mg/L	-0.336	0.50	2000	4000	2050	19.4	18 to 22	96.5	80 to 120	0.971	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10
BA03034	Chloride	mg/L	-0.0424	0.50	10.0	11.7	1.95	10.2	9 to 11	98.6	80 to 120	5.80	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-14

Location Code: WMWGORLF
Collected: 2/12/20 09:12
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03030

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:44		1.015	0.0499	mg/L	0.03	0.1	J
* Calcium, Total	2/18/20 15:15	2/19/20 13:22		20.3	316	mg/L	2.03	10.15	
Silicon, Total	2/18/20 15:15	2/19/20 11:44		1.015	5.61	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 11:44		1.015	1.80	mg/L	0.02	0.05	
* Lithium, Total	2/18/20 15:15	2/19/20 11:44		1.015	0.0367	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:22		20.3	355	mg/L	2.03	10.15	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:44		1	12.0	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 11:44		1.015	31.9	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 10:37		1.015	1.69	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:23		1.015	0.00110	mg/L	0.001	0.005	J
* Aluminum, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/14/20 10:25	2/14/20 15:23		1.015	0.0120	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:23		1.015	0.00804	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:27		5.075	2.20	mg/L	0.005075	0.025375	
* Potassium, Total	2/14/20 10:25	2/14/20 15:23		1.015	8.11	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 15:23		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-14

Location Code: WMWGORLF
Collected: 2/12/20 09:12
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03030

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	0.00805	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:07		5.075	2.10	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:39		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/13/20 14:19	2/13/20 14:19		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/13/20 14:51	2/13/20 14:51		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/13/20 14:51	2/13/20 14:51		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	260	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	260	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.12	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/13/20 15:32	2/13/20 15:32		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 09:40	2/20/20 09:40		1	1.41	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 10:26	2/14/20 10:26		1	1.49	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 14:32	2/14/20 14:32		1	0.224	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 14:41	2/17/20 14:41		100	1900	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 09:12
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-14

Laboratory ID Number: BA03030

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03034	Ortho Phosphate	mg/L as P	0.001	0.015	0.250	0.243	0.244	0.245	0.225 to 0.275	97.2	80 to 120	0.411	10
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 09:12
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-14

Laboratory ID Number: BA03030

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/12/20 09:12
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-14

Laboratory ID Number: BA03030

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03034	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	2.60	0.678	2.00	1.8 to 2.2	97.4	90 to 110	3.91	15
BA03034	Chloride	mg/L	-0.0424	0.50	10.0	11.7	1.95	10.2	9 to 11	98.6	80 to 120	5.80	20
BA03034	Nitrogen, Nitrite	mg/L as N	0.001	0.20	0.50	0.533	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03034	Fluoride	mg/L	0.0196	0.05	2.50	2.93	0.369	2.55	2.25 to 2.75	102	80 to 120	1.61	20
BA03034	Sulfate	mg/L	-0.336	0.50	2000	4000	2050	19.4	18 to 22	96.5	80 to 120	0.971	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-15

Location Code: WMWGORLF
Collected: 2/12/20 10:50
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03031

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:47		1.015	0.0588	mg/L	0.03	0.1	J
* Calcium, Total	2/18/20 15:15	2/19/20 13:25		10.15	270	mg/L	1.015	5.075	
Silicon, Total	2/18/20 15:15	2/19/20 11:47		1.015	7.72	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 13:25		10.15	12.6	mg/L	0.203	0.5075	
* Lithium, Total	2/18/20 15:15	2/19/20 11:47		1.015	0.0565	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:25		10.15	270	mg/L	1.015	5.075	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:47		1	16.5	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 11:47		1.015	25.9	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 12:03		10.15	11.4	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/14/20 10:25	2/14/20 15:26		1.015	0.0101	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:26		1.015	0.0462	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:29		10.15	9.30	mg/L	0.01015	0.05075	
* Potassium, Total	2/14/20 10:25	2/14/20 15:26		1.015	5.20	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 15:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-15

Location Code: WMWGORLF
Collected: 2/12/20 10:50
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03031

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	0.0451	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:09		10.15	8.49	mg/L	0.01015	0.05075	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:41		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/13/20 14:21	2/13/20 14:21		1	0.618	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/13/20 14:52	2/13/20 14:52		1	0.618	mg/L as N			
Nitrogen, Nitrite	2/13/20 14:52	2/13/20 14:52		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	189	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	189	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.05	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/13/20 15:33	2/13/20 15:33		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 09:51	2/20/20 09:51		1	1.48	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 10:27	2/14/20 10:27		1	1.34	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 14:33	2/14/20 14:33		1	0.367	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 14:42	2/17/20 14:42		100	1530	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 10:50
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-15

Laboratory ID Number: BA03031

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03034	Ortho Phosphate	mg/L as P	0.001	0.015	0.250	0.243	0.244	0.245	0.225 to 0.275	97.2	80 to 120	0.411	10
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 10:50
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-15

Laboratory ID Number: BA03031

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/12/20 10:50
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-15

Laboratory ID Number: BA03031

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03034	Chloride	mg/L	-0.0424	0.50	10.0	11.7	1.95	10.2	9 to 11	98.6	80 to 120	5.80	20
BA03034	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	2.60	0.678	2.00	1.8 to 2.2	97.4	90 to 110	3.91	15
BA03034	Nitrogen, Nitrite	mg/L as N	0.001	0.20	0.50	0.533	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03034	Fluoride	mg/L	0.0196	0.05	2.50	2.93	0.369	2.55	2.25 to 2.75	102	80 to 120	1.61	20
BA03034	Sulfate	mg/L	-0.336	0.50	2000	4000	2050	19.4	18 to 22	96.5	80 to 120	0.971	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-13 DUP

Location Code: WMWGORLF
Collected: 2/12/20 13:00
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03032

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:50		1.015	0.0555	mg/L	0.03	0.1	J
* Calcium, Total	2/18/20 15:15	2/19/20 13:28		10.15	189	mg/L	1.015	5.075	
Silicon, Total	2/18/20 15:15	2/19/20 11:50		1.015	3.54	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 11:50		1.015	0.0863	mg/L	0.02	0.05	
* Lithium, Total	2/18/20 15:15	2/19/20 11:50		1.015	0.0279	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:28		10.15	221	mg/L	1.015	5.075	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:50		1	7.58	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 11:50		1.015	26.4	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 10:43		1.015	0.0737	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/14/20 10:25	2/14/20 15:28		1.015	0.00967	mg/L	0.002	0.01	J
* Beryllium, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:28		1.015	0.00607	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:32		5.075	1.66	mg/L	0.005075	0.025375	
* Potassium, Total	2/14/20 10:25	2/14/20 15:28		1.015	6.94	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:28		1.015	0.00593	mg/L	0.002	0.01	J
* Thallium, Total	2/14/20 10:25	2/14/20 15:28		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-13 DUP

Location Code: WMWGORLF
Collected: 2/12/20 13:00
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03032

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	0.00620	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:12		5.075	1.58	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	0.00583	mg/L	0.002	0.01	J
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:44		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/13/20 14:22	2/13/20 14:22		1	1.06	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/13/20 14:53	2/13/20 14:53		1	1.06	mg/L as N			
Nitrogen, Nitrite	2/13/20 14:53	2/13/20 14:53		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	226	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	226	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.15	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/13/20 15:33	2/13/20 15:33		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/20/20 10:03	2/20/20 10:03		1	1.97	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/14/20 10:28	2/14/20 10:28		1	1.33	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/14/20 14:34	2/14/20 14:34		1	0.253	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/17/20 14:43	2/17/20 14:43		100	1260	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-13 DUP

Laboratory ID Number: BA03032

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03034	Ortho Phosphate	mg/L as P	0.001	0.015	0.250	0.243	0.244	0.245	0.225 to 0.275	97.2	80 to 120	0.411	10
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-13 DUP

Laboratory ID Number: BA03032

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:00
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-13 DUP

Laboratory ID Number: BA03032

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03034	Chloride	mg/L	-0.0424	0.50	10.0	11.7	1.95	10.2	9 to 11	98.6	80 to 120	5.80	20
BA03034	Nitrogen, Nitrite	mg/L as N	0.001	0.20	0.50	0.533	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03034	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	2.60	0.678	2.00	1.8 to 2.2	97.4	90 to 110	3.91	15
BA03034	Fluoride	mg/L	0.0196	0.05	2.50	2.93	0.369	2.55	2.25 to 2.75	102	80 to 120	1.61	20
BA03034	Sulfate	mg/L	-0.336	0.50	2000	4000	2050	19.4	18 to 22	96.5	80 to 120	0.971	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-6

Location Code: WMWGORLF
Collected: 2/12/20 13:32
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03033

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:53		1.015	0.105	mg/L	0.03	0.1	
* Calcium, Total	2/18/20 15:15	2/19/20 13:31		10.15	257	mg/L	1.015	5.075	
Silicon, Total	2/18/20 15:15	2/19/20 11:53		1.015	9.85	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 13:31		10.15	33.6	mg/L	0.203	0.5075	
* Lithium, Total	2/18/20 15:15	2/19/20 11:53		1.015	0.0559	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:31		10.15	325	mg/L	1.015	5.075	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:53		1	21.1	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 11:53		1.015	37.7	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 12:06		10.15	29.9	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:31		1.015	0.00719	mg/L	0.001	0.005	
* Aluminum, Total	2/14/20 10:25	2/14/20 15:31		1.015	0.0368	mg/L	0.02	0.06	J
* Barium, Total	2/14/20 10:25	2/14/20 15:31		1.015	0.0108	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:31		1.015	0.199	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:35		92.365	26.2	mg/L	0.092365	0.461825	
* Potassium, Total	2/14/20 10:25	2/14/20 15:31		1.015	6.91	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 15:31		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	0.0365	mg/L	0.02	0.06	J
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	0.00718	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-6

Location Code: WMWGORLF
Collected: 2/12/20 13:32
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03033

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	0.202	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:15		92.365	26.5	mg/L	0.092365	0.461825	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:47		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/13/20 14:24	2/13/20 14:24		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/13/20 14:53	2/13/20 14:53		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/13/20 14:53	2/13/20 14:53		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	126	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	126	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.01	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/13/20 15:34	2/13/20 15:34		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 10:15	2/20/20 10:15		1	1.75	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 10:29	2/14/20 10:29		1	3.45	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 14:36	2/14/20 14:36		1	0.159	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 14:44	2/17/20 14:44		100	1760	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:32
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-6

Laboratory ID Number: BA03033

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03034	Ortho Phosphate	mg/L as P	0.001	0.015	0.250	0.243	0.244	0.245	0.225 to 0.275	97.2	80 to 120	0.411	10
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:32
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-6

Laboratory ID Number: BA03033

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/12/20 13:32
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-6

Laboratory ID Number: BA03033

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03034	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	2.60	0.678	2.00	1.8 to 2.2	97.4	90 to 110	3.91	15
BA03034	Chloride	mg/L	-0.0424	0.50	10.0	11.7	1.95	10.2	9 to 11	98.6	80 to 120	5.80	20
BA03034	Nitrogen, Nitrite	mg/L as N	0.001	0.20	0.50	0.533	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03034	Fluoride	mg/L	0.0196	0.05	2.50	2.93	0.369	2.55	2.25 to 2.75	102	80 to 120	1.61	20
BA03034	Sulfate	mg/L	-0.336	0.50	2000	4000	2050	19.4	18 to 22	96.5	80 to 120	0.971	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-4

Location Code: WMWGORLF
Collected: 2/12/20 15:55
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03034

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:56		1.015	0.0424	mg/L	0.03	0.1	J
* Calcium, Total	2/18/20 15:15	2/19/20 13:34		101.5	252	mg/L	10.15	50.75	
Silicon, Total	2/18/20 15:15	2/19/20 11:56		1.015	5.47	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 11:56		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	2/18/20 15:15	2/19/20 11:56		1.015	0.0482	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:34		101.5	406	mg/L	10.15	50.75	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:56		1	11.7	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 11:56		1.015	39.3	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 10:49		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/14/20 10:25	2/14/20 15:34		1.015	0.0116	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	2/14/20 10:25	2/14/20 15:34		1.015	7.65	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:34		1.015	0.00405	mg/L	0.002	0.01	J
* Thallium, Total	2/14/20 10:25	2/14/20 15:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-4

Location Code: WMWGORLF
Collected: 2/12/20 15:55
Customer ID:
Submittal Date: 2/13/20 10:44

Laboratory ID Number: BA03034

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.001	0.005	U
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	0.00422	mg/L	0.002	0.01	J
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:49		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/13/20 14:26	2/13/20 14:26		1	0.652	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/13/20 14:54	2/13/20 14:54		1	0.652	mg/L as N			
Nitrogen, Nitrite	2/13/20 14:54	2/13/20 14:54		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	194	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	194	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.07	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/13/20 15:34	2/13/20 15:34		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 10:26	2/20/20 10:26		1	1.50	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 10:30	2/14/20 10:30		1	1.84	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 14:37	2/14/20 14:37		1	0.375	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 14:46	2/17/20 14:46		100	2070	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 15:55
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-4

Laboratory ID Number: BA03034

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03034	Ortho Phosphate	mg/L as P	0.001	0.015	0.250	0.243	0.244	0.245	0.225 to 0.275	97.2	80 to 120	0.411	10
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/12/20 15:55
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-4

Laboratory ID Number: BA03034

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/12/20 15:55
Customer ID:
Delivery Date: 2/13/20 10:44

Description: Gorgas Landfill - GS-CCB-MW-4

Laboratory ID Number: BA03034

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03034	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	2.60	0.678	2.00	1.8 to 2.2	97.4	90 to 110	3.91	15
BA03034	Chloride	mg/L	-0.0424	0.50	10.0	11.7	1.95	10.2	9 to 11	98.6	80 to 120	5.80	20
BA03034	Nitrogen, Nitrite	mg/L as N	0.001	0.20	0.50	0.533	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03034	Fluoride	mg/L	0.0196	0.05	2.50	2.93	0.369	2.55	2.25 to 2.75	102	80 to 120	1.61	20
BA03034	Sulfate	mg/L	-0.336	0.50	2000	4000	2050	19.4	18 to 22	96.5	80 to 120	0.971	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-1

Location Code: WMWGORLF
Collected: 2/13/20 09:40
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03145

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 11:59		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/18/20 15:15	2/19/20 13:37		20.3	170	mg/L	2.03	10.15	
Silicon, Total	2/18/20 15:15	2/19/20 11:59		1.015	11.4	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 11:59		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	2/18/20 15:15	2/19/20 11:59		1.015	0.0307	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:37		20.3	314	mg/L	2.03	10.15	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 11:59		1	24.4	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 13:37		20.3	33.8	mg/L	2.03	10.15	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 10:51		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:36		1.015	0.120	mg/L	0.02	0.06	
* Barium, Total	2/14/20 10:25	2/14/20 15:36		1.015	0.0103	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:36		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:36		1.015	0.00189	mg/L	0.0003	0.001	
* Chromium, Total	2/14/20 10:25	2/14/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:36		1.015	0.0479	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:37		10.15	8.44	mg/L	0.01015	0.05075	
* Potassium, Total	2/14/20 10:25	2/14/20 15:36		1.015	7.26	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:36		1.015	0.00407	mg/L	0.002	0.01	J
* Thallium, Total	2/14/20 10:25	2/14/20 15:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	0.115	mg/L	0.02	0.06	
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-1

Location Code: WMWGORLF
Collected: 2/13/20 09:40
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03145

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	0.00199	mg/L	0.0003	0.001	
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	0.0494	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:17		10.15	8.18	mg/L	0.01015	0.05075	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	0.00438	mg/L	0.002	0.01	J
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:52		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/14/20 12:19	2/14/20 12:19		1	2.57	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/14/20 12:57	2/14/20 12:57		1	2.57	mg/L as N			
Nitrogen, Nitrite	2/14/20 12:57	2/14/20 12:57		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	22.2	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	22.2	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.00	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/14/20 13:30	2/14/20 13:30		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 10:38	2/20/20 10:38		1	1.36	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 11:28	2/14/20 11:28		1	2.13	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 15:34	2/14/20 15:34		1	0.0942	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 16:06	2/17/20 16:06		100	1520	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 09:40
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-1

Laboratory ID Number: BA03145

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 09:40
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-1

Laboratory ID Number: BA03145

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20
BA03150	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.235	0.242	0.241	0.225 to 0.275	94.0	80 to 120	2.94	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/13/20 09:40
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-1

Laboratory ID Number: BA03145

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Chloride	mg/L	-0.0526	0.50	10.0	10.5	0.158	10.1	9 to 11	105	80 to 120	0.00	20
BA03150	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.20	2.00	2.02	0.036	1.95	1.8 to 2.2	101	90 to 110	0.00	15
BA03150	Fluoride	mg/L	0.0206	0.05	2.50	2.56	0.0167	2.56	2.25 to 2.75	102	80 to 120	0.00	20
BA03150	Nitrogen, Nitrite	mg/L as N	0.004	0.20	0.50	0.536	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03150	Sulfate	mg/L	-0.577	0.50	20.0	18.5	-0.471	18.8	18 to 22	92.5	80 to 120	0.00	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-2

Location Code: WMWGORLF
Collected: 2/13/20 08:20
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03146

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 12:02		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/18/20 15:15	2/19/20 13:40		10.15	151	mg/L	1.015	5.075	
Silicon, Total	2/18/20 15:15	2/19/20 12:02		1.015	4.44	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 12:02		1.015	1.14	mg/L	0.02	0.05	
* Lithium, Total	2/18/20 15:15	2/19/20 12:02		1.015	0.0562	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:40		10.15	171	mg/L	1.015	5.075	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 12:02		1	9.50	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 12:02		1.015	18.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 10:54		1.015	1.14	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/14/20 10:25	2/14/20 15:39		1.015	0.0140	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:39		1.015	0.00997	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:40		5.075	2.28	mg/L	0.005075	0.025375	
* Potassium, Total	2/14/20 10:25	2/14/20 15:39		1.015	5.68	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 15:39		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-2

Location Code: WMWGORLF
Collected: 2/13/20 08:20
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03146

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	0.0102	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:20		5.075	2.28	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:55		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/14/20 12:21	2/14/20 12:21		1	1.14	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/14/20 12:58	2/14/20 12:58		1	1.14	mg/L as N			
Nitrogen, Nitrite	2/14/20 12:58	2/14/20 12:58		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	289	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	289	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.07	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/14/20 13:31	2/14/20 13:31		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 10:49	2/20/20 10:49		1	1.57	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 11:29	2/14/20 11:29		1	1.53	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 15:35	2/14/20 15:35		1	0.221	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 16:08	2/17/20 16:08		100	799	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 08:20
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-2

Laboratory ID Number: BA03146

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 08:20
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-2

Laboratory ID Number: BA03146

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20
BA03150	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.235	0.242	0.241	0.225 to 0.275	94.0	80 to 120	2.94	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/13/20 08:20
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-2

Laboratory ID Number: BA03146

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Chloride	mg/L	-0.0526	0.50	10.0	10.5	0.158	10.1	9 to 11	105	80 to 120	0.00	20
BA03150	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.20	2.00	2.02	0.036	1.95	1.8 to 2.2	101	90 to 110	0.00	15
BA03150	Fluoride	mg/L	0.0206	0.05	2.50	2.56	0.0167	2.56	2.25 to 2.75	102	80 to 120	0.00	20
BA03150	Nitrogen, Nitrite	mg/L as N	0.004	0.20	0.50	0.536	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10
BA03150	Sulfate	mg/L	-0.577	0.50	20.0	18.5	-0.471	18.8	18 to 22	92.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-3

Location Code: WMWGORLF
Collected: 2/13/20 08:47
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03147

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 12:05		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/18/20 15:15	2/19/20 13:43		50.75	262	mg/L	5.075	25.375	RA
Silicon, Total	2/18/20 15:15	2/19/20 12:05		1.015	14.6	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 12:05		1.015	0.119	mg/L	0.02	0.05	
* Lithium, Total	2/18/20 15:15	2/19/20 12:05		1.015	0.108	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:43		50.75	527	mg/L	5.075	25.375	RA
Silica, Total (calc.)	2/18/20 15:15	2/19/20 12:05		1	31.2	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 13:43		50.75	56.0	mg/L	5.075	25.375	RA
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 10:57		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:42		1.015	0.245	mg/L	0.02	0.06	
* Barium, Total	2/14/20 10:25	2/14/20 15:42		1.015	0.0102	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:42		1.015	0.00494	mg/L	0.0003	0.001	
* Chromium, Total	2/14/20 10:25	2/14/20 15:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:42		1.015	0.0540	mg/L	0.002	0.005	
* Lead, Total	2/14/20 10:25	2/14/20 15:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:42		5.075	3.63	mg/L	0.005075	0.025375	RA
* Potassium, Total	2/14/20 10:25	2/14/20 15:42		1.015	7.37	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:42		1.015	0.0162	mg/L	0.002	0.01	
* Thallium, Total	2/14/20 10:25	2/14/20 15:42		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	0.232	mg/L	0.02	0.06	
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike duplicate recovery is outside of specification limit for TOC. LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-3

Location Code: WMWGORLF
Collected: 2/13/20 08:47
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03147

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	0.00475	mg/L	0.0003	0.001	
* Chromium, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	0.0547	mg/L	0.002	0.005	
* Lead, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 13:23		5.075	3.61	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	0.0156	mg/L	0.002	0.01	
* Thallium, Dissolved	2/14/20 11:05	2/14/20 11:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/14/20 12:23	2/14/20 12:23		1	5.00	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/14/20 12:59	2/14/20 12:59		1	5.00	mg/L as N			
Nitrogen, Nitrite	2/14/20 12:59	2/14/20 12:59		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	51.9	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	51.9	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.00	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/14/20 13:32	2/14/20 13:32		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 11:00	2/20/20 11:00		1	1.43	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 11:30	2/14/20 11:30		1	2.54	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 15:36	2/14/20 15:36		1	0.266	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 16:09	2/17/20 16:09		100	2500	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike duplicate recovery is outside of specification limit for TOC. LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 08:47
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-3

Laboratory ID Number: BA03147

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0973	0.0972	0.0952	0.085 to 0.115	92.6	70 to 130	0.103	20
BA03147	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0992	0.101	0.0967	0.085 to 0.115	94.3	70 to 130	1.80	20
BA03147	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0856	0.0856	0.0952	0.085 to 0.115	85.6	70 to 130	0.00	20
BA03147	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.102	0.103	0.0985	0.085 to 0.115	85.8	70 to 130	0.976	20
BA03147	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0931	0.0965	0.0947	0.085 to 0.115	93.1	70 to 130	3.59	20
BA03147	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	3.64	3.66	0.0995	0.085 to 0.115	10.0	70 to 130	0.548	20
BA03147	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0978	0.0975	0.0917	0.085 to 0.115	97.8	70 to 130	0.307	20
BA03147	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0966	0.0956	0.0964	0.085 to 0.115	96.6	70 to 130	1.04	20
BA03147	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.11	1.09	1.02	0.85 to 1.15	111	70 to 130	1.82	20
BA03147	Calcium, Total	mg/L	-0.00728	0.1518	5.00	279	274	5.14	4.25 to 5.75	340	70 to 130	1.81	20
BA03147	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	0.197	0.201	0.205	0.17 to 0.23	98.5	70 to 130	2.01	20
BA03147	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.92	20
BA03147	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.350	0.348	0.198	0.17 to 0.23	121	70 to 130	0.573	20
BA03147	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0919	0.0947	0.0885	0.085 to 0.115	91.9	70 to 130	3.00	20
BA03147	Total Organic Carbon	mg/L	0.620	1.00	10.0	9.50	9.42	9.15	9 to 11	80.7	80 to 120	0.846	20
BA03147	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.342	0.341	0.0991	0.085 to 0.115	97.0	70 to 130	0.293	20
BA03147	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.148	0.147	0.0976	0.085 to 0.115	94.0	70 to 130	0.678	20
BA03147	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.101	0.0997	0.100	0.085 to 0.115	101	70 to 130	1.30	20
BA03147	Iron, Total	mg/L	0.00170	0.0176	0.2	0.321	0.321	0.206	0.17 to 0.23	101	70 to 130	0.00	20
BA03147	Potassium, Total	mg/L	-0.00662	0.3674	10.0	17.3	17.0	10.0	8.5 to 11.5	99.3	70 to 130	1.75	20
BA03147	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	3.68	3.74	0.0979	0.085 to 0.115	70.0	70 to 130	1.62	20
BA03147	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.327	0.330	0.0997	0.085 to 0.115	95.0	70 to 130	0.913	20
BA03147	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.103	0.101	0.105	0.085 to 0.115	103	70 to 130	1.96	20
BA03147	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.111	0.113	0.0980	0.085 to 0.115	101	70 to 130	1.79	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
Matrix spike duplicate recovery is outside of specification limit for TOC. LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 08:47
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-3

Laboratory ID Number: BA03147

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03147	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0858	0.0877	0.0913	0.085 to 0.115	85.8	70 to 130	2.19	20
BA03147	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0912	0.0911	0.0946	0.085 to 0.115	91.2	70 to 130	0.110	20
BA03147	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.149	0.150	0.0972	0.085 to 0.115	94.3	70 to 130	0.669	20
BA03147	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0862	0.0854	0.0977	0.085 to 0.115	86.2	70 to 130	0.932	20
BA03147	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.0866	0.0886	0.0999	0.085 to 0.115	86.6	70 to 130	2.28	20
BA03147	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	556	544	5.14	4.25 to 5.75	580	70 to 130	2.18	20
BA03147	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0848	0.0860	0.0974	0.085 to 0.115	84.8	70 to 130	1.41	20
BA03147	Sodium, Total	mg/L	-0.000736	0.044	5.00	63.6	62.3	5.21	4.25 to 5.75	152	70 to 130	2.07	20
BA03147	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0969	0.101	0.0993	0.085 to 0.115	96.9	70 to 130	4.14	20
BA03147	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.103	0.103	0.106	0.085 to 0.115	87.4	70 to 130	0.00	20
BA03147	Silicon, Total	mg/L	-0.00216	0.044	1.00	15.7	15.7	1.02	0.850 to 1.15	110	70 to 130	0.00	20
BA03150	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.235	0.242	0.241	0.225 to 0.275	94.0	80 to 120	2.94	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike duplicate recovery is outside of specification limit for TOC. LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/13/20 08:47
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-3

Laboratory ID Number: BA03147

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.20	2.00	2.02	0.036	1.95	1.8 to 2.2	101	90 to 110	0.00	15
BA03150	Chloride	mg/L	-0.0526	0.50	10.0	10.5	0.158	10.1	9 to 11	105	80 to 120	0.00	20
BA03150	Fluoride	mg/L	0.0206	0.05	2.50	2.56	0.0167	2.56	2.25 to 2.75	102	80 to 120	0.00	20
BA03150	Sulfate	mg/L	-0.577	0.50	20.0	18.5	-0.471	18.8	18 to 22	92.5	80 to 120	0.00	20
BA03150	Nitrogen, Nitrite	mg/L as N	0.004	0.20	0.50	0.536	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike duplicate recovery is outside of specification limit for TOC. LBM 03/04/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-20

Location Code: WMWGORLF
Collected: 2/13/20 12:30
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03148

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 12:20		1.015	0.117	mg/L	0.03	0.1	
* Calcium, Total	2/18/20 15:15	2/19/20 13:57		50.75	364	mg/L	5.075	25.375	
Silicon, Total	2/18/20 15:15	2/19/20 12:20		1.015	9.81	mg/L	0.03	0.3	
* Iron, Total	2/18/20 15:15	2/19/20 13:57		50.75	7.82	mg/L	1.015	2.5375	
* Lithium, Total	2/18/20 15:15	2/19/20 12:20		1.015	0.227	mg/L	0.01	0.02	
* Magnesium, Total	2/18/20 15:15	2/19/20 13:57		50.75	188	mg/L	5.075	25.375	
Silica, Total (calc.)	2/18/20 15:15	2/19/20 12:20		1	21.0	mg/L			
* Sodium, Total	2/18/20 15:15	2/19/20 13:57		50.75	137	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/17/20 08:30	2/17/20 12:09		10.15	7.71	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/14/20 10:25	2/14/20 15:57		1.015	0.0305	mg/L	0.02	0.06	J
* Barium, Total	2/14/20 10:25	2/14/20 15:57		1.015	0.0164	mg/L	0.002	0.01	
* Beryllium, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 15:57		1.015	1.18	mg/L	0.001	0.005	
* Potassium, Total	2/14/20 10:25	2/14/20 15:57		1.015	5.98	mg/L	0.3	2.5	
* Selenium, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 15:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill - GS-CCB-MW-20

Location Code: WMWGORLF
Collected: 2/13/20 12:30
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03148

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	1.17	mg/L	0.001	0.005	
* Selenium, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/14/20 11:05	2/14/20 12:13		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/14/20 12:24	2/14/20 12:24		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/14/20 12:59	2/14/20 12:59		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/14/20 12:59	2/14/20 12:59		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	2/24/20 12:45	2/24/20 13:30		1	258	mg/L		0.1	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	258	mg/L			
Carbonate Alkalinity, (calc.)	2/24/20 12:45	2/24/20 13:30		1	0.20	mg/L			
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/14/20 13:33	2/14/20 13:33		1	0.027	mg/L as P	0.010	0.03	J
Analytical Method: SM 5310 B	***Analyst: HRG***								
* Total Organic Carbon	2/20/20 12:05	2/20/20 12:05		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	2/14/20 11:38	2/14/20 11:38		4	68.0	mg/L	2.00	4	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	2/14/20 15:37	2/14/20 15:37		1	0.120	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	2/17/20 16:10	2/17/20 16:10		100	1430	mg/L	50.00	100	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 12:30
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-20

Laboratory ID Number: BA03148

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03148	Cadmium, Dissolved	mg/L	-0.00000751	0.0001474	0.10	0.0954	0.0927	0.0952	0.085 to 0.115	95.4	70 to 130	2.87	20
BA03150	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.0967	0.0974	0.0976	0.085 to 0.115	96.7	70 to 130	0.721	20
BA03150	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.0989	0.0999	0.0980	0.085 to 0.115	98.9	70 to 130	1.01	20
BA03150	Sodium, Total	mg/L	-0.000736	0.044	5.00	4.95	4.98	5.21	4.25 to 5.75	99.0	70 to 130	0.604	20
BA03150	Silicon, Total	mg/L	-0.00216	0.044	1.00	1.00	1.01	1.02	0.850 to 1.15	100	70 to 130	0.995	20
BA03148	Arsenic, Dissolved	mg/L	-0.00000276	0.0001474	0.10	0.106	0.105	0.105	0.085 to 0.115	106	70 to 130	0.948	20
BA03150	Potassium, Total	mg/L	-0.00662	0.3674	10.0	9.89	10.1	10.0	8.5 to 11.5	98.9	70 to 130	2.10	20
BA03150	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	4.91	5.02	5.14	4.25 to 5.75	98.2	70 to 130	2.22	20
BA03148	Aluminum, Dissolved	mg/L	-0.000156	0.0088	0.10	0.0992	0.0966	0.0997	0.085 to 0.115	99.2	70 to 130	2.66	20
BA03148	Iron, Dissolved	mg/L	0.000181	0.0176	0.2	7.94	7.94	0.205	0.17 to 0.23	115	70 to 130	0.00	20
BA03148	Molybdenum, Dissolved	mg/L	0.0000202	0.0001474	0.10	0.0997	0.0948	0.0952	0.085 to 0.115	99.7	70 to 130	5.04	20
BA03148	Thallium, Dissolved	mg/L	-0.00000169	0.0001474	0.10	0.0935	0.0914	0.0964	0.085 to 0.115	93.5	70 to 130	2.27	20
BA03150	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.01	0.993	1.02	0.85 to 1.15	101	70 to 130	1.70	20
BA03150	Calcium, Total	mg/L	-0.00728	0.1518	5.00	4.99	4.98	5.14	4.25 to 5.75	99.8	70 to 130	0.201	20
BA03150	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	0.0988	0.100	0.0995	0.085 to 0.115	98.8	70 to 130	1.21	20
BA03148	Beryllium, Dissolved	mg/L	0.0000145	0.00088	0.10	0.0913	0.0934	0.0913	0.085 to 0.115	91.3	70 to 130	2.27	20
BA03148	Manganese, Dissolved	mg/L	-0.00000248	0.0001474	0.10	1.24	1.26	0.0979	0.085 to 0.115	70.0	70 to 130	1.60	20
BA03150	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.1000	0.100	0.0999	0.085 to 0.115	100	70 to 130	0.00	20
BA03150	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0953	0.0953	0.0947	0.085 to 0.115	95.3	70 to 130	0.00	20
BA03148	Cobalt, Dissolved	mg/L	-0.00000399	0.0001474	0.10	0.0961	0.0944	0.0972	0.085 to 0.115	96.1	70 to 130	1.78	20
BA03150	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.00	20
BA03150	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0958	0.0925	0.0946	0.085 to 0.115	95.8	70 to 130	3.51	20
BA03150	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0927	0.0942	0.0917	0.085 to 0.115	92.7	70 to 130	1.61	20
BA03148	Chromium, Dissolved	mg/L	-0.0000119	0.00044	0.10	0.0981	0.0957	0.0977	0.085 to 0.115	98.1	70 to 130	2.48	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLF
Sample Date: 2/13/20 12:30
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-20

Laboratory ID Number: BA03148

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0972	0.0962	0.0967	0.085 to 0.115	97.2	70 to 130	1.03	20
BA03150	Iron, Total	mg/L	0.00170	0.0176	0.2	0.200	0.200	0.206	0.17 to 0.23	100	70 to 130	0.00	20
BA03150	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0975	0.0969	0.0974	0.085 to 0.115	97.5	70 to 130	0.617	20
BA03150	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0992	0.100	0.0993	0.085 to 0.115	99.2	70 to 130	0.803	20
BA03148	Lead, Dissolved	mg/L	-0.00000016	0.0001474	0.10	0.0976	0.0961	0.100	0.085 to 0.115	97.6	70 to 130	1.55	20
BA03148	Antimony, Dissolved	mg/L	0.000244	0.00066	0.10	0.0868	0.0873	0.0885	0.085 to 0.115	86.8	70 to 130	0.574	20
BA03148	Selenium, Dissolved	mg/L	0.0000909	0.00066	0.10	0.101	0.0983	0.106	0.085 to 0.115	101	70 to 130	2.71	20
BA03150	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.235	0.242	0.241	0.225 to 0.275	94.0	80 to 120	2.94	10
BA03150	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.0995	0.0986	0.0991	0.085 to 0.115	99.5	70 to 130	0.909	20
BA03150	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.189	0.191	0.198	0.17 to 0.23	94.5	70 to 130	1.05	20
BA03150	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.0984	0.100	0.0985	0.085 to 0.115	98.4	70 to 130	1.61	20
BA03150	Total Organic Carbon	mg/L	0.50	1.00	10.0	8.86	8.73	9.32	9 to 11	88.6	80 to 120	1.48	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/13/20 12:30
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill - GS-CCB-MW-20

Laboratory ID Number: BA03148

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.20	2.00	2.02	0.036	1.95	1.8 to 2.2	101	90 to 110	0.00	15
BA03150	Nitrogen, Nitrite	mg/L as N	0.004	0.20	0.50	0.536	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03150	Fluoride	mg/L	0.0206	0.05	2.50	2.56	0.0167	2.56	2.25 to 2.75	102	80 to 120	0.00	20
BA03150	Sulfate	mg/L	-0.577	0.50	20.0	18.5	-0.471	18.8	18 to 22	92.5	80 to 120	0.00	20
BA03148	Alkalinity, Total as CaCO3	mg/L					258	49.8	45.0 to 55.0			0.00	10
BA03150	Chloride	mg/L	-0.0526	0.50	10.0	10.5	0.158	10.1	9 to 11	105	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 03/04/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Field Blank

Location Code: WMWGORLFFB
Collected: 2/13/20 11:47
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03149

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 12:23		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/18/20 15:15	2/19/20 12:23		1.015	Not Detected	mg/L	0.1	0.5	U
Silicon, Total	2/18/20 15:15	2/19/20 12:23		1.015	Not Detected	mg/L	0.03	0.3	U
* Iron, Total	2/18/20 15:15	2/19/20 12:23		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	2/18/20 15:15	2/19/20 12:23		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/18/20 15:15	2/19/20 12:23		1.015	Not Detected	mg/L	0.1	0.5	U
Silica, Total (calc.)	2/18/20 15:15	2/19/20 12:23		1	Not Detected	mg/L			U
* Sodium, Total	2/18/20 15:15	2/19/20 12:23		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 16:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/14/20 12:26	2/14/20 12:26		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/14/20 13:00	2/14/20 13:00		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/14/20 13:00	2/14/20 13:00		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/14/20 13:34	2/14/20 13:34		1	Not Detected	mg/L as P	0.010	0.03	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Field Blank

Location Code: WMWGORLFFB
Collected: 2/13/20 11:47
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03149

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/20/20 12:16	2/20/20 12:16		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/14/20 11:33	2/14/20 11:33		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/14/20 15:38	2/14/20 15:38		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/17/20 16:11	2/17/20 16:11		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFFB
Sample Date: 2/13/20 11:47
Customer ID:
Delivery Date: 2/14/20 09:17

Description:Gorgas Landfill Field Blank

Laboratory ID Number: BA03149

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.0989	0.0999	0.0980	0.085 to 0.115	98.9	70 to 130	1.01	20
BA03150	Sodium, Total	mg/L	-0.000736	0.044	5.00	4.95	4.98	5.21	4.25 to 5.75	99.0	70 to 130	0.604	20
BA03150	Silicon, Total	mg/L	-0.00216	0.044	1.00	1.00	1.01	1.02	0.850 to 1.15	100	70 to 130	0.995	20
BA03150	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.1000	0.100	0.0999	0.085 to 0.115	100	70 to 130	0.00	20
BA03150	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0953	0.0953	0.0947	0.085 to 0.115	95.3	70 to 130	0.00	20
BA03150	Potassium, Total	mg/L	-0.00662	0.3674	10.0	9.89	10.1	10.0	8.5 to 11.5	98.9	70 to 130	2.10	20
BA03150	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	4.91	5.02	5.14	4.25 to 5.75	98.2	70 to 130	2.22	20
BA03150	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.00	20
BA03150	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0958	0.0925	0.0946	0.085 to 0.115	95.8	70 to 130	3.51	20
BA03150	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0927	0.0942	0.0917	0.085 to 0.115	92.7	70 to 130	1.61	20
BA03150	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0972	0.0962	0.0967	0.085 to 0.115	97.2	70 to 130	1.03	20
BA03150	Iron, Total	mg/L	0.00170	0.0176	0.2	0.200	0.200	0.206	0.17 to 0.23	100	70 to 130	0.00	20
BA03150	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0975	0.0969	0.0974	0.085 to 0.115	97.5	70 to 130	0.617	20
BA03150	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0992	0.100	0.0993	0.085 to 0.115	99.2	70 to 130	0.803	20
BA03150	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.01	0.993	1.02	0.85 to 1.15	101	70 to 130	1.70	20
BA03150	Calcium, Total	mg/L	-0.00728	0.1518	5.00	4.99	4.98	5.14	4.25 to 5.75	99.8	70 to 130	0.201	20
BA03150	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	0.0988	0.100	0.0995	0.085 to 0.115	98.8	70 to 130	1.21	20
BA03150	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.0967	0.0974	0.0976	0.085 to 0.115	96.7	70 to 130	0.721	20
BA03150	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.235	0.242	0.241	0.225 to 0.275	94.0	80 to 120	2.94	10
BA03150	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.0995	0.0986	0.0991	0.085 to 0.115	99.5	70 to 130	0.909	20
BA03150	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.189	0.191	0.198	0.17 to 0.23	94.5	70 to 130	1.05	20
BA03150	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.0984	0.100	0.0985	0.085 to 0.115	98.4	70 to 130	1.61	20
BA03150	Total Organic Carbon	mg/L	0.50	1.00	10.0	8.86	8.73	9.32	9 to 11	88.6	80 to 120	1.48	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFFB
Sample Date: 2/13/20 11:47
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill Field Blank

Laboratory ID Number: BA03149

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Nitrogen, Nitrite	mg/L as N	0.004	0.20	0.50	0.536	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03150	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.20	2.00	2.02	0.036	1.95	1.8 to 2.2	101	90 to 110	0.00	15
BA03150	Fluoride	mg/L	0.0206	0.05	2.50	2.56	0.0167	2.56	2.25 to 2.75	102	80 to 120	0.00	20
BA03150	Sulfate	mg/L	-0.577	0.50	20.0	18.5	-0.471	18.8	18 to 22	92.5	80 to 120	0.00	20
BA03150	Chloride	mg/L	-0.0526	0.50	10.0	10.5	0.158	10.1	9 to 11	105	80 to 120	0.00	20

Comments:

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Equipment Blank

Location Code: WMWGORLFEB
Collected: 2/13/20 11:36
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03150

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/18/20 15:15	2/19/20 12:25		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/18/20 15:15	2/19/20 12:25		1.015	Not Detected	mg/L	0.1	0.5	U
Silicon, Total	2/18/20 15:15	2/19/20 12:25		1.015	Not Detected	mg/L	0.03	0.3	U
* Iron, Total	2/18/20 15:15	2/19/20 12:25		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	2/18/20 15:15	2/19/20 12:25		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/18/20 15:15	2/19/20 12:25		1.015	Not Detected	mg/L	0.1	0.5	U
Silica, Total (calc.)	2/18/20 15:15	2/19/20 12:25		1	Not Detected	mg/L			U
* Sodium, Total	2/18/20 15:15	2/19/20 12:25		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/14/20 10:25	2/14/20 16:03		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/14/20 12:28	2/14/20 12:28		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/14/20 13:01	2/14/20 13:01		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/14/20 13:01	2/14/20 13:01		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/14/20 13:35	2/14/20 13:35		1	Not Detected	mg/L as P	0.010	0.03	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Gorgas Landfill Equipment Blank

Location Code: WMWGORLFEB
Collected: 2/13/20 11:36
Customer ID:
Submittal Date: 2/14/20 09:17

Laboratory ID Number: BA03150

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/20/20 12:27	2/20/20 12:27		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/14/20 11:34	2/14/20 11:34		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/14/20 15:40	2/14/20 15:40		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/17/20 16:12	2/17/20 16:12		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWGORLFEB
Sample Date: 2/13/20 11:36
Customer ID:
Delivery Date: 2/14/20 09:17

Description:Gorgas Landfill Equipment Blank

Laboratory ID Number: BA03150

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Cobalt, Total	mg/L	-0.00000337	0.0001474	0.10	0.0967	0.0974	0.0976	0.085 to 0.115	96.7	70 to 130	0.721	20
BA03150	Potassium, Total	mg/L	-0.00662	0.3674	10.0	9.89	10.1	10.0	8.5 to 11.5	98.9	70 to 130	2.10	20
BA03150	Magnesium, Total	mg/L	-0.000588	0.0462	5.00	4.91	5.02	5.14	4.25 to 5.75	98.2	70 to 130	2.22	20
BA03150	Cadmium, Total	mg/L	0.00000346	0.0001474	0.10	0.0972	0.0962	0.0967	0.085 to 0.115	97.2	70 to 130	1.03	20
BA03150	Iron, Total	mg/L	0.00170	0.0176	0.2	0.200	0.200	0.206	0.17 to 0.23	100	70 to 130	0.00	20
BA03150	Molybdenum, Total	mg/L	0.0000132	0.0001474	0.10	0.0975	0.0969	0.0974	0.085 to 0.115	97.5	70 to 130	0.617	20
BA03150	Lead, Total	mg/L	0.00000257	0.0001474	0.10	0.0992	0.100	0.0993	0.085 to 0.115	99.2	70 to 130	0.803	20
BA03150	Barium, Total	mg/L	-0.00000645	0.0002	0.10	0.0989	0.0999	0.0980	0.085 to 0.115	98.9	70 to 130	1.01	20
BA03150	Sodium, Total	mg/L	-0.000736	0.044	5.00	4.95	4.98	5.21	4.25 to 5.75	99.0	70 to 130	0.604	20
BA03150	Silicon, Total	mg/L	-0.00216	0.044	1.00	1.00	1.01	1.02	0.850 to 1.15	100	70 to 130	0.995	20
BA03150	Chromium, Total	mg/L	0.00000831	0.00044	0.10	0.1000	0.100	0.0999	0.085 to 0.115	100	70 to 130	0.00	20
BA03150	Thallium, Total	mg/L	0.00000136	0.0001474	0.10	0.0953	0.0953	0.0947	0.085 to 0.115	95.3	70 to 130	0.00	20
BA03150	Boron, Total	mg/L	-0.000389	0.0650254	1.00	1.01	0.993	1.02	0.85 to 1.15	101	70 to 130	1.70	20
BA03150	Calcium, Total	mg/L	-0.00728	0.1518	5.00	4.99	4.98	5.14	4.25 to 5.75	99.8	70 to 130	0.201	20
BA03150	Manganese, Total	mg/L	0.0000143	0.0001474	0.10	0.0988	0.100	0.0995	0.085 to 0.115	98.8	70 to 130	1.21	20
BA03150	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.235	0.242	0.241	0.225 to 0.275	94.0	80 to 120	2.94	10
BA03150	Aluminum, Total	mg/L	0.000705	0.0088	0.10	0.0995	0.0986	0.0991	0.085 to 0.115	99.5	70 to 130	0.909	20
BA03150	Lithium, Total	mg/L	0.0000139	0.0154	0.20	0.189	0.191	0.198	0.17 to 0.23	94.5	70 to 130	1.05	20
BA03150	Selenium, Total	mg/L	0.0000743	0.00066	0.10	0.0984	0.100	0.0985	0.085 to 0.115	98.4	70 to 130	1.61	20
BA03150	Total Organic Carbon	mg/L	0.50	1.00	10.0	8.86	8.73	9.32	9 to 11	88.6	80 to 120	1.48	20
BA03150	Arsenic, Total	mg/L	-0.0000141	0.0001474	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.00	20
BA03150	Beryllium, Total	mg/L	0.00000482	0.00088	0.10	0.0958	0.0925	0.0946	0.085 to 0.115	95.8	70 to 130	3.51	20
BA03150	Antimony, Total	mg/L	0.000211	0.00066	0.10	0.0927	0.0942	0.0917	0.085 to 0.115	92.7	70 to 130	1.61	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Customer Account: WMWGORLFEB
Sample Date: 2/13/20 11:36
Customer ID:
Delivery Date: 2/14/20 09:17

Description: Gorgas Landfill Equipment Blank

Laboratory ID Number: BA03150

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA03150	Nitrogen, Nitrite	mg/L as N	0.004	0.20	0.50	0.536	0.00	0.769	0.675 to 0.825	107	90 to 110	0.00	15
BA03150	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.20	2.00	2.02	0.036	1.95	1.8 to 2.2	101	90 to 110	0.00	15
BA03150	Fluoride	mg/L	0.0206	0.05	2.50	2.56	0.0167	2.56	2.25 to 2.75	102	80 to 120	0.00	20
BA03150	Chloride	mg/L	-0.0526	0.50	10.0	10.5	0.158	10.1	9 to 11	105	80 to 120	0.00	20
BA03150	Sulfate	mg/L	-0.577	0.50	20.0	18.5	-0.471	18.8	18 to 22	92.5	80 to 120	0.00	20

Comments:

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Alabama Power

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
J	Reported value is an estimate because concentration is less than reporting limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.

WMWGORLF_1261

Chain of Custody
Groundwater
APC General Testing Laboratory

☐ Field Complete ☐ Lab Complete ☐ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Brooks,Redwine,Vlassopoulos,Mitchell
Site Representative	Rick Hagendorfer,	Requested By	Greg Dyer
Collector	Rick Hagendorfer/Colton Evans	Location	Gorgas Landfill

Bottles												
1	Metals	500 mL	3	Anions/Alk.	250 mL	5	TOC	250 mL	7	N/A	N/A
2	Diss. Metals	500 mL	4	NO3/Ortho-P	250 mL	6	N/A	N/A	8	N/A	N/A

Comments: send copy of Results To Jim Redwine/Kristi Mitchell Dimitre Vlassopoulos

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-12	2/12/20	1500	5	Ground Water		BA 03028
MW-13	2/12/20	1300	5			29
MW-14	2/12/20	0912	5			30
MW-15	2/12/20	1050	5			31
MW-13 Dup	2/12/20	1300	5			32
MW-6	2/12/20	1332	5			33
MW-4	2/12/20	1555	5	↓ MM		↓ 34

Relinquished By	Received By	Date/Time
Chris Barnett	Chris Barnett	2/12/20 1634
	Laura Mauff	2/13/20 1016

SmarTroll ID
Turbidity ID
Sample Event

TO C, All metals and radiological bottles have pH < 2 ☑

Cooler Temp: 0.0°C
Thermometer ID: 5408-27568-2-2
pH Strip ID: 7901-43572-2-1

7.1

WMWGORLF-1261

Chain of Custody
Groundwater
APC General Testing Laboratory

☐ Field Complete ☐ Lab Complete ☐ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Rick Hagendorfer	Requested By	Greg Dyer
Collector	Rick Hagendorfer/Colton Evans	Location	Gorgas - Bottom Ash L/F

Bottles

1	Metals	500 mL	3	Anions/Alk.	250 mL	5	TOC	500 mL	7	N/A	N/A
2	Diss. Metals	500 mL	4	NO3/Ortho-P	250 mL	6	N/A	N/A	8	N/A	N/A

Comments: Send copy of Results to Jim Redwine, Kristi Mitchell, Dimitri Vlassopoulos (All with Anchor)

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	2-13-20	0940	5	Ground water		BA03145
MW-2	2-13-20	0820	5	"		46
MW-3	"	0847	5	"		47
MW-20	"	1230	5	"		48
Field Blank	"	1147	4	DI water		49
Equipment Blank	"	1136	4	"		50

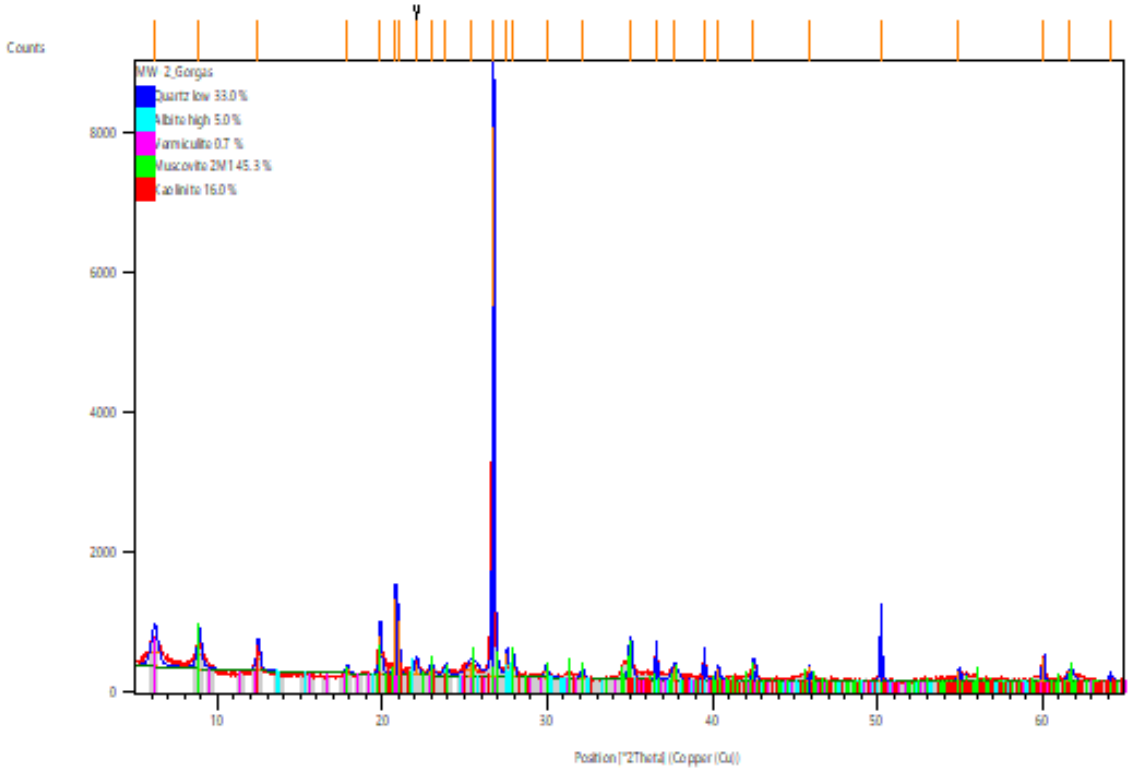
Relinquished By	Received By	Date/Time
Chris Barnes	Chris Barnes	4:25 pm 2/13/2020
	Laura McDuff	2/14/2020 0854

SmarTroll ID
Turbidity ID
Sample Event: 1261

TOC, All metals and radiological bottles have pH < 2 ☑

Cooler Temp: 0.1°C & 0.7°C
Thermometer ID: 5408-27568-2-2
pH Strip ID: 7901-43572-2-1

Graphics

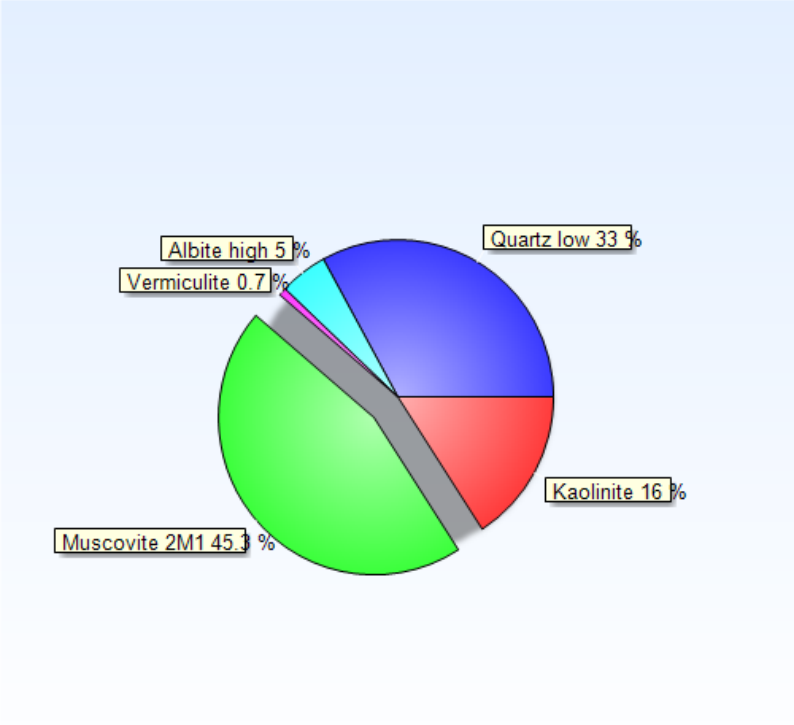


Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
6.2087	14.23591	5.17	98-016-6064
8.9124	9.92241	5.01	98-009-0144;98..
12.4855	7.08965	4.00	98-016-6064;96..
17.8576	4.96715	1.06	98-016-6064;98..
19.8860	4.46485	7.07	98-009-0144;98..
20.8099	4.26865	13.81	98-002-9210;98..
20.9724	4.23596	10.06	98-002-9210;98..
22.0728	4.02719	2.31	
22.9619	3.87324	1.48	98-010-0505;98..
23.8425	3.73214	1.42	98-010-0505;98..
25.4332	3.50220	2.16	98-016-6064;98..
26.7364	3.33439	100.00	98-002-9210;98..
27.5733	3.23506	4.38	98-010-0505;98..
27.9589	3.19131	3.11	98-010-0505;98..
29.9251	2.98596	1.92	98-010-0505;98..
32.1102	2.78758	1.30	98-009-0144;98..
35.0080	2.56319	5.92	98-016-6064;98..
36.5938	2.45568	4.75	98-002-9210;98..
37.7031	2.38593	2.16	98-016-6064;98..
39.4957	2.28168	3.75	98-002-9210;98..
40.3269	2.23655	2.08	98-002-9210;98..

42.5067	2.12676	3.33	98-002-9210;98..
45.8715	1.97829	2.91	98-002-9210;98..
50.1881	1.81780	9.16	98-002-9210;98..
54.9213	1.67181	1.93	98-002-9210;98..
59.9964	1.54068	4.46	98-002-9210;98..
61.6809	1.50383	1.90	98-010-0505;98..
64.0796	1.45321	0.86	98-002-9210;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	33.0
Phase Albite high:	Weight fraction/ %:	5
Phase Vermiculite:	Weight fraction/ %:	0.75
Phase Muscovite 2M1:	Weight fraction/ %:	45
Phase Kaolinite:	Weight fraction/ %:	16

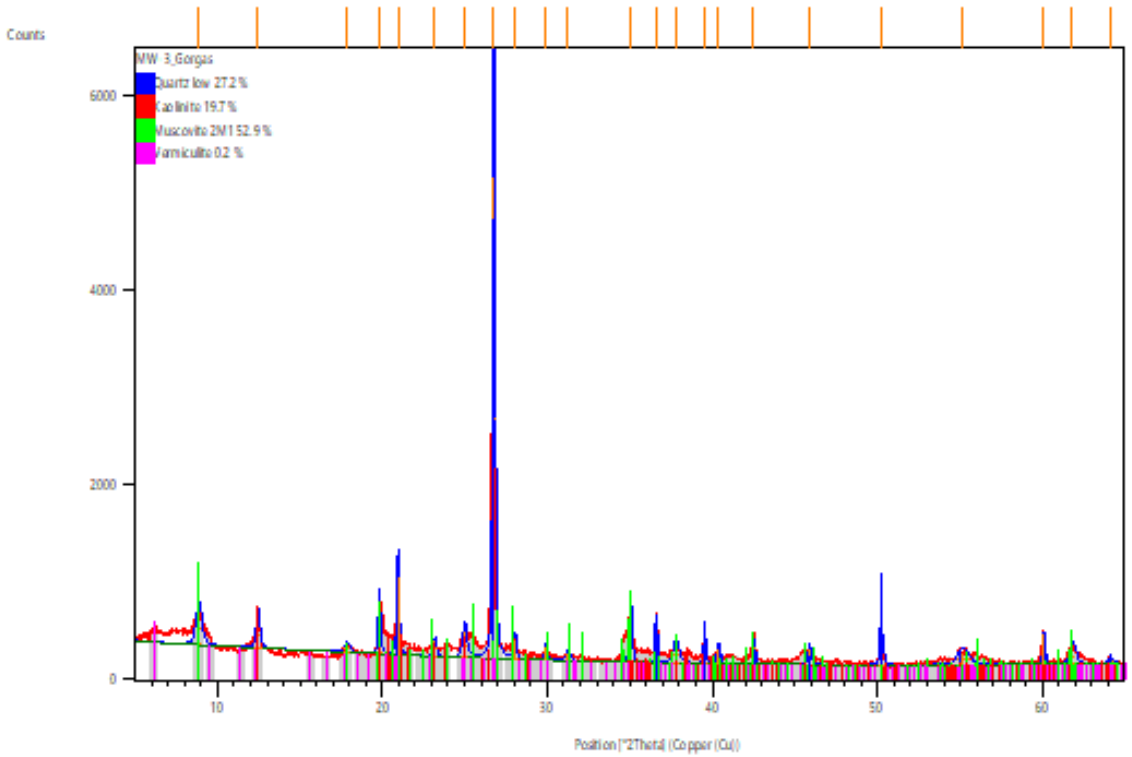
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-002-9210	67	Quartz low	O2 Si1
98-010-0505	16	Albite high	Al1 Na1 O8 Si3
98-016-6064	26	Vermiculite	H10.8 Al2.94 Ca0.0..
98-018-0082	46	Muscovite/Illite	H1.834 Al2.724 F0...
96-900-9235	21	Kaolinite	Al2.00 Si2.00 O9.0..

Anchor Scan Parameters

Dataset Name:	MW-2_Gorgas
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\MW-2_Gorgas.rd
Sample Identification:	MW-2 Gorgas
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/17/2020 3:29:00 PM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0125
End Position [°2Th.]:	64.9875
Step Size [°2Th.]:	0.0250
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

Graphics

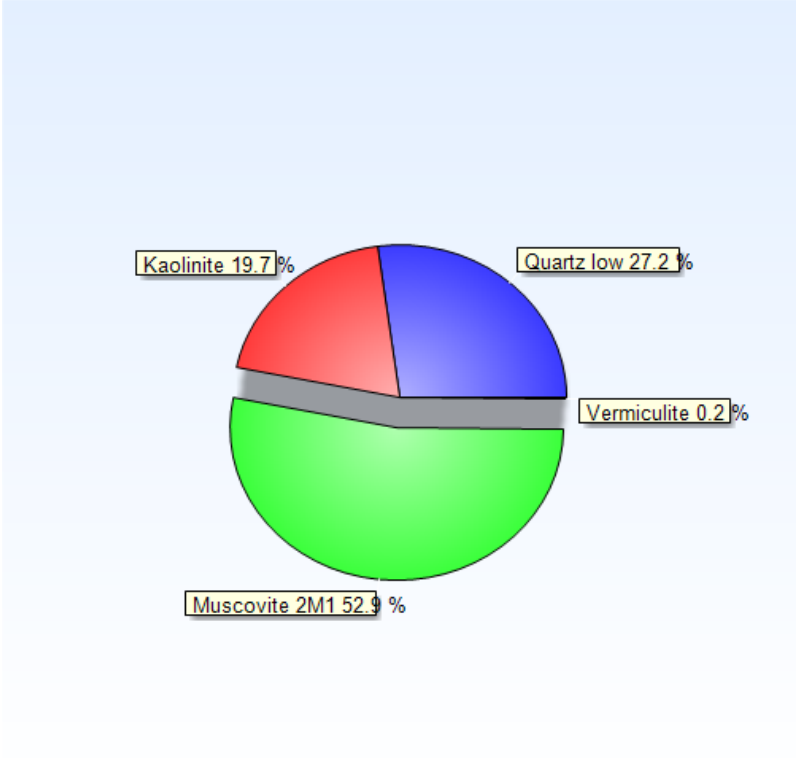


Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
8.9032	9.93258	6.23	98-009-0144;98..
12.4723	7.09712	5.94	96-900-9235;98..
17.8535	4.96827	1.57	98-009-0144;98..
19.8164	4.48036	9.95	98-009-0144;98..
20.9404	4.24234	16.32	98-002-9210;98..
23.2053	3.83316	3.18	96-900-9235
24.9942	3.56272	5.29	98-009-0144;98..
26.7591	3.33161	100.00	98-002-9210;98..
28.0064	3.18601	4.01	98-018-0082;96..
29.9215	2.98631	3.02	98-009-0144;98..
31.2470	2.86259	1.62	98-009-0144;98..
35.0295	2.56167	9.94	98-009-0144;98..
36.5876	2.45607	9.42	98-002-9210;98..
37.7760	2.38150	3.51	98-009-0144;98..
39.5123	2.28076	8.40	98-002-9210;98..
40.3520	2.23522	3.42	98-002-9210;98..
42.4917	2.12748	6.74	98-002-9210;98..
45.8617	1.97869	3.65	98-002-9210;98..
50.2087	1.81710	9.16	98-002-9210;98..
55.1596	1.66515	2.53	98-002-9210;98..
60.0303	1.54117	6.69	98-002-9210;98..

61.7968	1.50129	3.49	98-009-0144;98..
64.1123	1.45254	0.95	98-002-9210;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	27.2(4)
Phase Kaolinite:	Weight fraction/ %:	20(1)
Phase Muscovite 2M1:	Weight fraction/ %:	53(1)
Phase Vermiculite:	Weight fraction/ %:	0.24(4)

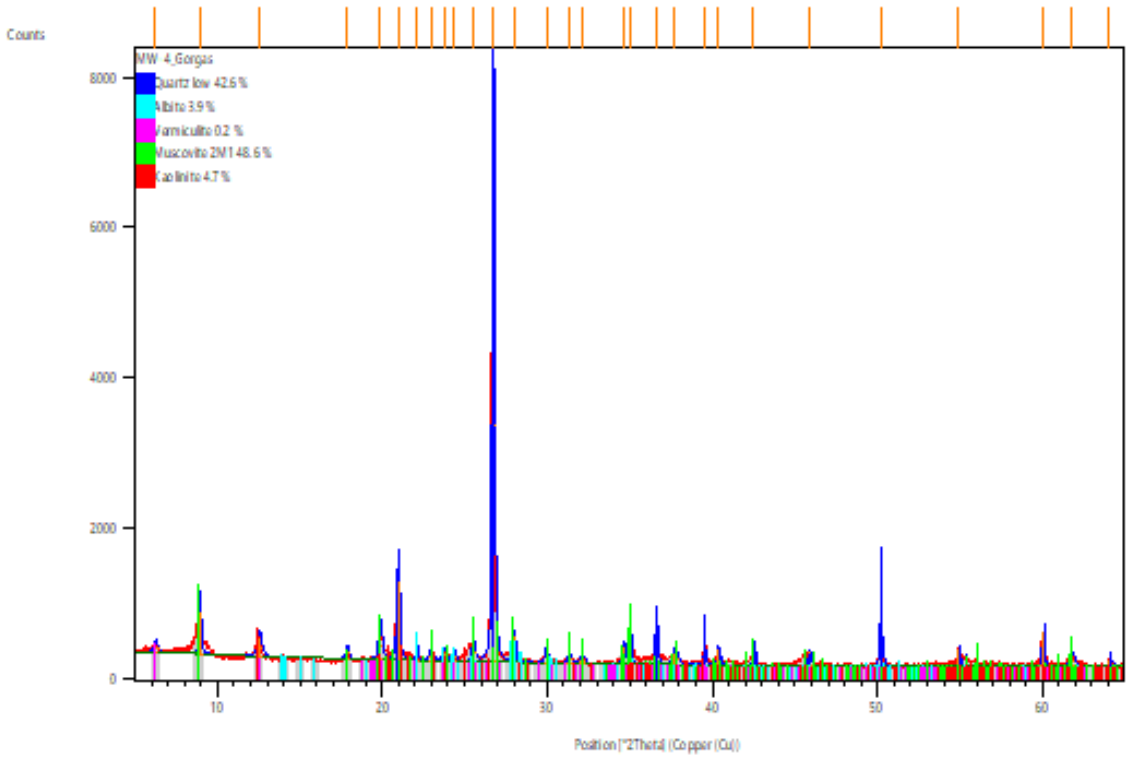
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-002-9210	65	Quartz low	O2 Si1
98-018-0082	36	Muscovite/Illite	H1.834 Al2.724 F0...
96-900-9235	28	Kaolinite	Al2.00 Si2.00 O9.0..
98-016-6064	9	Vermiculite	H10.8 Al2.94 Ca0.0..

Anchor Scan Parameters

Dataset Name:	MW-3_Gorgas
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\MW-3_Gorgas.rd
Sample Identification:	MW-3 Gorgas
Comment:	Exported by X'Pert SW Generated by hugo in project Maynard.
Measurement Date / Time:	3/16/2020 10:16:00 AM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0125
End Position [°2Th.]:	64.9875
Step Size [°2Th.]:	0.0250
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

Graphics

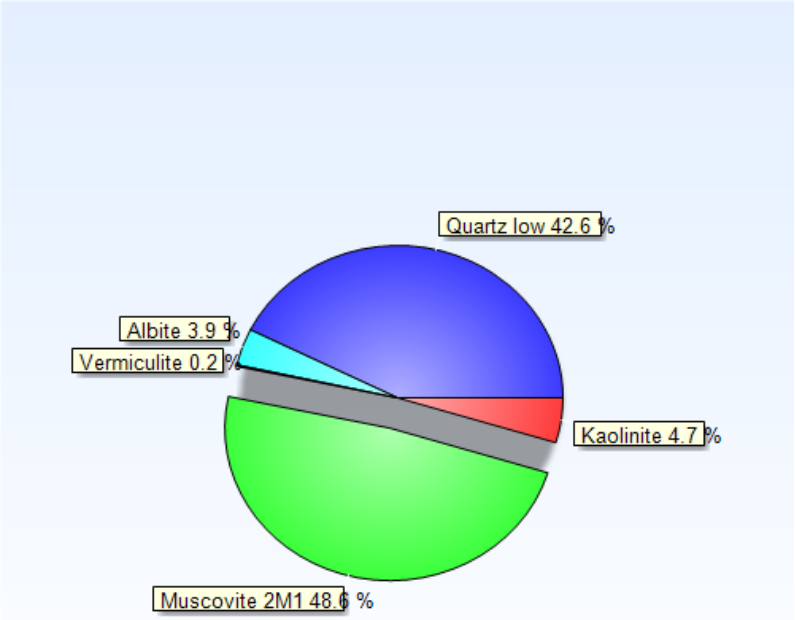


Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
6.2677	14.10196	1.81	98-015-9384
8.9622	9.86732	9.06	98-018-0082;98..
12.5702	7.04209	3.57	98-015-9384;96..
17.8777	4.96163	2.10	98-018-0082;98..
19.8796	4.46626	6.00	98-015-9384;98..
20.9678	4.23686	16.39	98-002-9210;98..
22.0894	4.02421	3.10	96-900-1633;98..
22.9551	3.87437	1.61	96-900-1633;98..
23.7768	3.74231	1.75	96-900-1633;98..
24.3525	3.65512	1.81	96-900-1633;98..
25.5251	3.48981	3.55	96-900-1633;98..
26.7264	3.33561	100.00	98-002-9210;96..
27.9935	3.18745	5.47	96-900-1633;98..
29.9527	2.98327	2.83	98-018-0082;98..
31.3181	2.85625	1.83	96-900-1633;98..
32.1201	2.78674	1.32	96-900-1633;98..
34.6084	2.59186	3.81	98-015-9384;98..
35.0071	2.56325	7.64	96-900-1633;98..
36.6121	2.45449	8.21	98-002-9210;96..
37.7210	2.38485	2.44	96-900-1633;98..
39.5181	2.28044	5.08	98-002-9210;96..

40.3703	2.23425	3.69	98-002-9210;96..
42.5045	2.12687	5.27	98-002-9210;96..
45.8779	1.97803	3.23	98-002-9210;96..
50.1916	1.81768	9.05	98-002-9210;96..
54.9243	1.67173	3.88	98-002-9210;96..
60.0006	1.54186	7.18	98-002-9210;98..
61.7628	1.50203	2.46	96-900-1633;98..
64.0676	1.45345	1.25	98-002-9210;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	42.6
Phase Albite:	Weight fraction/ %:	3.9
Phase Vermiculite:	Weight fraction/ %:	0.18
Phase Muscovite 2M1:	Weight fraction/ %:	49
Phase Kaolinite:	Weight fraction/ %:	4.7

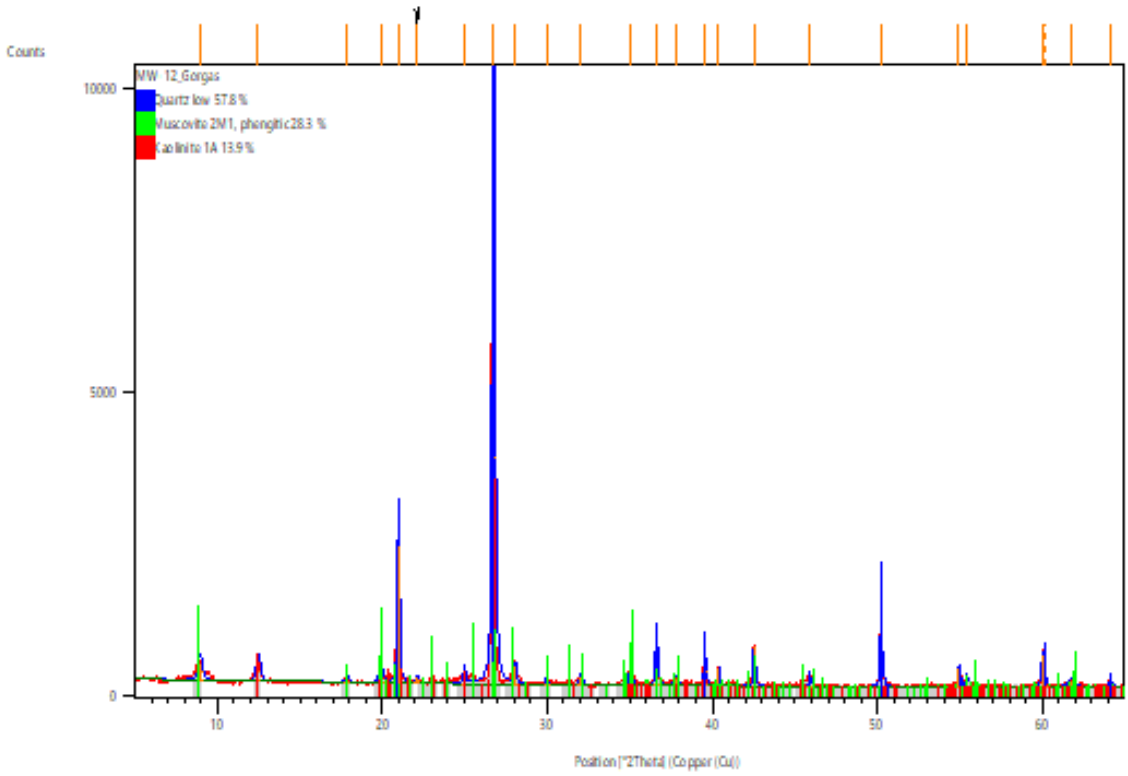
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-002-9210	66	Quartz low	O2 Si1
96-900-1633	22	Albite	Na2.00 Al2.00 Si6...
98-015-9384	29	Vermiculite	H3 Al1 Mg3 O12 Si3
98-018-0082	46	Muscovite/Illite	H1.834 Al2.724 F0...
96-900-9235	15	Kaolinite	Al2.00 Si2.00 O9.0..

Anchor Scan Parameters

Dataset Name:	MW-4_Gorgas
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\MW-4_Gorgas.rd
Sample Identification:	MW-4 Gorgas
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/16/2020 1:37:00 PM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0125
End Position [°2Th.]:	64.9875
Step Size [°2Th.]:	0.0250
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

Graphics

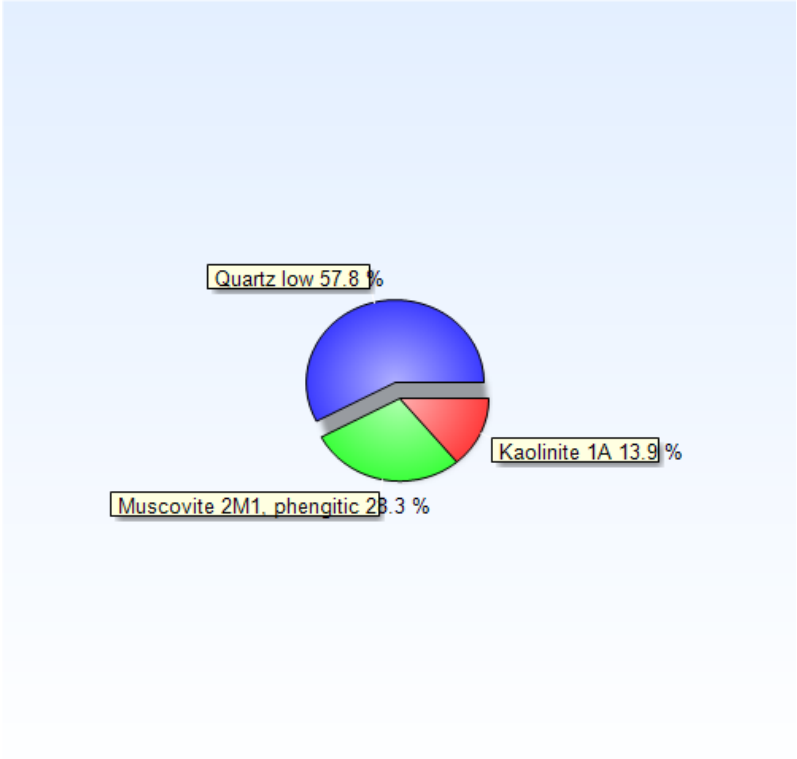


Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
8.9751	9.85322	3.90	98-009-0144;98..
12.4841	7.09043	4.26	98-008-0082
17.8559	4.96762	1.29	98-009-0144;98..
19.9025	4.46117	3.29	98-009-0144;98..
20.9645	4.23752	30.09	98-002-9210;98..
22.1002	4.02226	1.26	
24.9579	3.56781	2.76	98-007-7488;98..
26.7356	3.33449	100.00	98-002-9210;98..
28.0580	3.18027	4.16	98-007-7488
29.9447	2.98405	1.51	98-009-0144;98..
32.0130	2.79582	1.84	98-009-0144;98..
35.0341	2.56134	6.30	98-009-0144;98..
36.6074	2.45480	7.98	98-002-9210;98..
37.7803	2.38124	1.60	98-009-0144;98..
39.5434	2.27904	6.07	98-002-9210;98..
40.3451	2.23558	3.79	98-002-9210;98..
42.5198	2.12614	9.03	98-002-9210;98..
45.8797	1.97795	3.10	98-002-9210;98..
50.2001	1.81739	12.48	98-002-9210;98..
54.9120	1.67207	4.03	98-002-9210;98..
55.4175	1.65801	2.07	98-002-9210;98..

59.9988	1.54063	7.20	98-002-9210;98..
61.7375	1.50134	1.39	98-009-0144;98..
64.1052	1.45148	2.07	98-002-9210;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	57.8(5)
Phase Muscovite 2M1, phengitic:	Weight fraction/ %:	28(1)
Phase Kaolinite 1A:	Weight fraction/ %:	14(1)

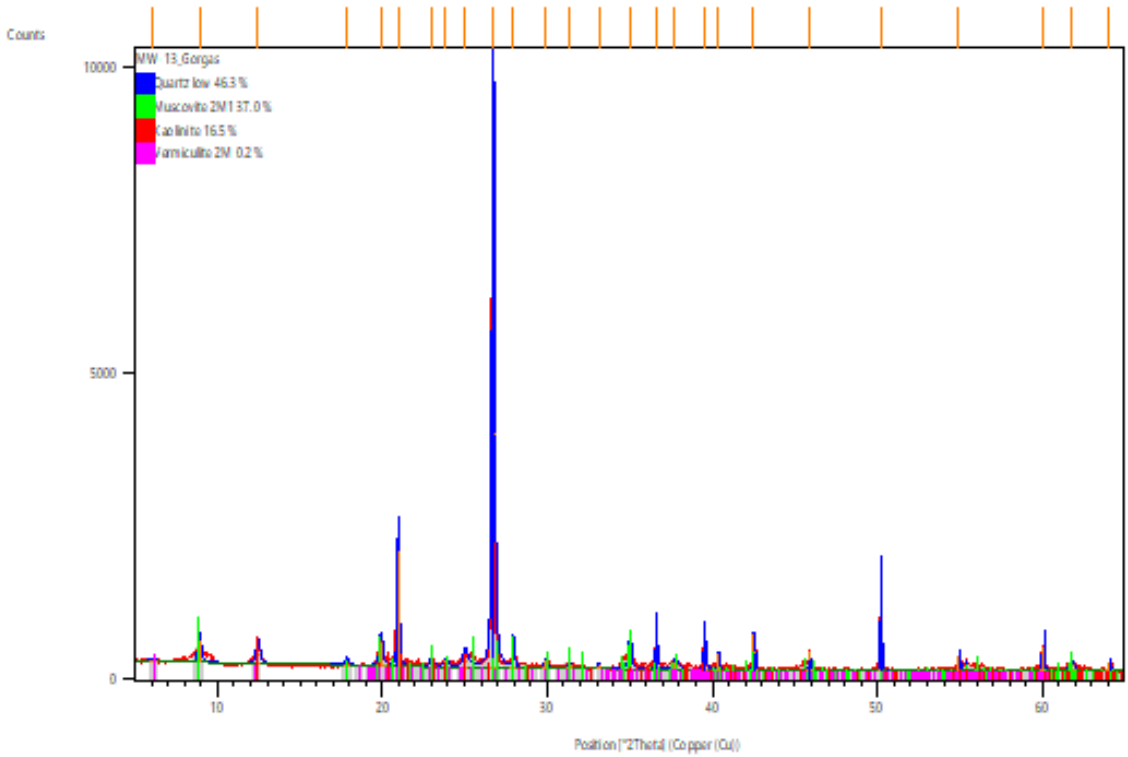
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-002-9210	68	Quartz low	O2 Si1
98-007-7488	27	Muscovite/Illite	H1.85 Al2.6 F0.07 ..
98-008-0082	19	Kaolinite 1A	H4 Al2 O9 Si2

Anchor Scan Parameters

Dataset Name:	MW-12_Gorgas
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\MW-12_Gorgas.rd
Sample Identification:	MW-12 Gorgas
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/17/2020 5:12:00 PM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0125
End Position [°2Th.]:	64.9875
Step Size [°2Th.]:	0.0250
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

Graphics

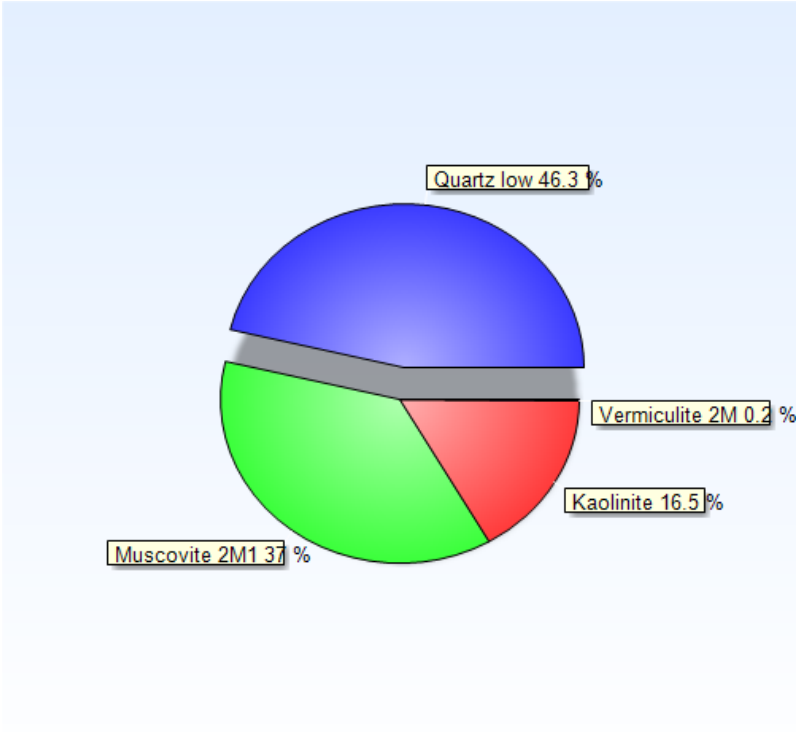


Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
6.0855	14.52386	0.48	98-003-4812
8.9229	9.91073	4.48	98-009-0144;98..
12.4650	7.10125	3.64	96-900-9235;98..
17.8418	4.97152	1.25	98-009-0144;98..
19.9135	4.45874	4.98	98-009-0144;98..
20.9497	4.24048	24.77	98-002-9210;98..
22.9832	3.86969	1.40	98-009-0144;98..
23.8483	3.73125	1.34	98-009-0144;98..
25.0186	3.55930	2.58	98-018-0082;96..
26.7152	3.33698	100.00	98-002-9210;98..
27.9328	3.19423	6.12	98-018-0082
29.9011	2.98830	1.82	98-009-0144;98..
31.3315	2.85506	1.40	98-018-0082;98..
33.1028	2.70623	0.95	98-003-4812
34.9901	2.56446	5.21	98-009-0144;98..
36.6102	2.45461	5.90	98-002-9210;98..
37.7318	2.38419	1.70	98-009-0144;98..
39.5210	2.28027	7.73	98-002-9210;98..
40.3382	2.23595	3.52	98-002-9210;98..
42.5068	2.12676	7.68	98-002-9210;98..
45.8693	1.97838	4.36	98-002-9210;98..

50.1885	1.81778	12.90	98-002-9210;98..
54.9135	1.67203	3.08	98-002-9210;98..
59.9884	1.54214	5.25	98-002-9210;98..
61.7310	1.50273	2.09	98-009-0144;98..
64.0603	1.45239	1.79	98-002-9210;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	46.3
Phase Muscovite 2M1:	Weight fraction/ %:	37
Phase Kaolinite:	Weight fraction/ %:	17
Phase Vermiculite 2M:	Weight fraction/ %:	0.17

Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-002-9210	64	Quartz low	O2 Si1
98-018-0082	37	Muscovite/ Illite	H1.834 Al2.724 F0...
96-900-9235	21	Kaolinite	Al2.00 Si2.00 O9.0..
98-003-4812	7	Vermiculite 2M	H9.44 Al1.14 Mg3.4..

Anchor Scan Parameters

Dataset Name:	MW-13_Gorgas
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\MW-13_Gorgas.rd
Sample Identification:	MW-13 Gorgas
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/17/2020 1:43:00 PM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0125
End Position [°2Th.]:	64.9875
Step Size [°2Th.]:	0.0250
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

Site ID	SAMPLE ID	Units	Al	Al Error	As	As Error	Bal	Bal Error	Ca	Ca Error	Ce	Ce Error	Cl	Cl Error	Co	Co Error	Fe	Fe Error	K	K Error	La	La Error	Mg	Mg Error	Mn
Gorgas	GS-AP-MW-12	ppm	5223	1537	10	4	658379	1443	214200	1300	< LOD	34	313	125	< LOD	61	3887	219	1992	128	< LOD	35	12895	7124	< LOD
Gorgas	GS-AP-MW-18	ppm	26116	1729	27	5	667313	1550	65201	759	67	30	361	103	< LOD	135	41967	438	19366	326	< LOD	44	10101	5099	< LOD
Gorgas	GS-AP-MW-6D	ppm	5959	709	4	3	751161	1003	1942	75	43	21	2414	98	< LOD	62	5582	232	3863	102	< LOD	32	< LOD	3237	< LOD
Gorgas	GS-AP-MW-6D DUP	ppm	22028	1326	23	4	686439	1307	1748	136	< LOD	33	< LOD	130	< LOD	116	37766	351	17226	291	< LOD	33	< LOD	6009	< LOD
Gorgas	GS-AP-MW-7	ppm	4571	615	11	3	745782	1004	8632	145	< LOD	30	< LOD	99	< LOD	54	2645	212	2381	79	< LOD	45	< LOD	3180	< LOD
Gorgas	GS-AP-MW-8	ppm	3032	1261	133	14	478263	3742	1187	165	< LOD	107	507	78	< LOD	421	480856	3690	< LOD	393	< LOD	94	< LOD	12481	< LOD
Gorgas	GS-GSA-MW-3	ppm	34409	1577	30	5	734608	1196	3943	202	< LOD	36	< LOD	134	< LOD	130	47819	417	25023	388	< LOD	36	< LOD	4931	< LOD
Gorgas	GS-GSA-MW-4	ppm	28215	1363	31	5	745155	1104	1808	152	< LOD	35	< LOD	121	< LOD	118	40853	362	23068	347	< LOD	35	< LOD	5397	< LOD
Gorgas	MW-1	ppm	12520	868	15	3	747370	1031	954	92	45	24	222	68	< LOD	100	26024	298	9787	194	< LOD	35	< LOD	3433	3643
Gorgas	MW-12	ppm	17301	1079	69	5	719563	1143	1461	115	< LOD	37	429	78	< LOD	113	38254	347	11331	231	< LOD	35	< LOD	7068	< LOD
Gorgas	MW-13	ppm	20751	1146	19	4	737746	1080	1152	110	62	25	< LOD	148	< LOD	104	30554	317	15234	249	56	24	< LOD	7040	< LOD
Gorgas	MW-14	ppm	20633	1084	19	4	755561	1011	1261	108	< LOD	31	214	73	< LOD	97	27298	292	13929	240	< LOD	31	< LOD	5145	< LOD
Gorgas	MW-2	ppm	12807	880	7	3	737770	1115	1341	80	78	23	324	74	< LOD	76	9873	263	8720	161	48	22	< LOD	3772	< LOD
Gorgas	MW-3	ppm	19643	1015	15	4	761934	988	1067	90	< LOD	32	< LOD	98	< LOD	80	16104	255	13226	208	< LOD	30	< LOD	5280	< LOD
Gorgas	MW-3 DUP	ppm	19841	1007	9	4	757881	1002	997	91	< LOD	31	< LOD	98	< LOD	81	16150	255	13365	210	< LOD	31	< LOD	3559	< LOD
Gorgas	MW-4	ppm	27215	1364	16	4	723095	1218	1418	150	82	28	< LOD	114	< LOD	132	50502	425	22569	354	92	28	5435	3482	< LOD
Gorgas	MW-6	ppm	22071	1308	27	4	686916	1323	1692	137	< LOD	33	< LOD	192	< LOD	118	38009	353	17233	297	< LOD	33	< LOD	4928	< LOD

Site ID	SAMPLE ID	Units	Mn Error	Mo	Mo Error	Nb	Nb Error	Nd	Nd Error	P	P Error	Pr	Pr Error	S	S Error	Se	Se Error	Si	Si Error	Ti	Ti Error	Zn	Zn Error	Zr	Zr Error
Gorgas	GS-AP-MW-12	ppm	921	10	2	3	2	< LOD	59	1862	429	< LOD	44	584	167	< LOD	3	95472	1835	< LOD	1407	< LOD	11	< LOD	7
Gorgas	GS-AP-MW-18	ppm	1615	25	3	9	2	< LOD	93	3434	403	< LOD	62	4005	200	< LOD	3	150128	1964	5121	1649	94	11	104	7
Gorgas	GS-AP-MW-6D	ppm	1000	< LOD	2	3	1	< LOD	52	3452	342	< LOD	55	1609	117	< LOD	2	221937	1915	1795	529	< LOD	8	102	2
Gorgas	GS-AP-MW-6D DUP	ppm	966	15	2	16	2	< LOD	55	4457	407	< LOD	42	2575	158	< LOD	2	221008	2118	5794	1310	137	11	277	4
Gorgas	GS-AP-MW-7	ppm	935	2	1	< LOD	2	< LOD	50	3080	312	< LOD	38	996	95	< LOD	2	230804	1810	898	420	< LOD	7	65	2
Gorgas	GS-AP-MW-8	ppm	1321	< LOD	5	< LOD	4	< LOD	183	8420	335	< LOD	132	295	99	< LOD	7	26696	829	< LOD	2804	< LOD	27	6	3
Gorgas	GS-GSA-MW-3	ppm	1445	6	2	16	2	< LOD	61	3621	350	< LOD	46	3752	175	< LOD	2	139238	1810	6057	1623	275	15	153	3
Gorgas	GS-GSA-MW-4	ppm	1005	12	2	16	2	< LOD	58	3271	328	< LOD	44	2205	140	< LOD	3	148230	1759	5841	1462	126	11	186	4
Gorgas	MW-1	ppm	654	25	2	6	1	< LOD	59	3124	310	< LOD	45	611	95	< LOD	2	191704	1768	3135	913	85	9	138	3
Gorgas	MW-12	ppm	1148	60	2	11	2	< LOD	59	3277	337	< LOD	45	2035	128	< LOD	2	201106	1899	3629	1094	126	10	208	4
Gorgas	MW-13	ppm	1012	13	2	11	1	< LOD	60	3137	326	< LOD	58	5616	177	< LOD	2	180414	1796	4212	1103	107	10	166	3
Gorgas	MW-14	ppm	937	17	2	11	1	< LOD	52	2991	310	< LOD	39	7554	195	< LOD	2	165795	1704	3755	1105	131	10	136	3
Gorgas	MW-2	ppm	1079	10	2	21	2	< LOD	72	6786	3506	< LOD	45	880	248	< LOD	2	216116	2100	3800	761	16	7	1063	9
Gorgas	MW-3	ppm	946	11	2	8	1	< LOD	50	3360	307	< LOD	38	4168	150	< LOD	2	176073	1711	3683	913	51	8	144	3
Gorgas	MW-3 DUP	ppm	942	11	2	8	1	< LOD	51	3184	308	< LOD	39	4321	152	< LOD	2	179816	1729	3759	918	45	8	145	3
Gorgas	MW-4	ppm	1378	11	2	15	2	144	47	3228	330	106	35	445	107	< LOD	2	158726	1831	5738	1480	136	11	208	4
Gorgas	MW-6	ppm	952	17	2	15	2	< LOD	56	3960	399	< LOD	42	2426	155	< LOD	2	221116	2126	5532	1343	137	12	275	4

July 20, 2020 Service Request No:K2004421

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004421.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

1317 South 13th Ave, Kelso, WA 98626 | 1-360-577-7222 | www.alsglobal.com

ALS Environmental

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004421
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

One water sample was received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The sample was stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 06/19/2020: Samples in this delivery group required dilution to non-target matrix components. Attempts to analyze the undiluted samples resulted in failed instrument QC check samples. The detection limits were elevated accordingly. No further corrective action was appropriate.

Approved by _____ Date 06/22/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K2004421

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* (*Courier*) *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number (NA)	Filed
✓	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO3	0.5mL	RE1-54-C	CG	1100 6/6/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum	Iron	Comments/Preservation
16	GS-AP-MW-8_F4_016			Water	1	x	x		x	x	nitric acid
17	MR-AP-MW-3D_F4_017			Water	1	x	x	x		x	nitric acid
18	MR-AP-MW-4_F4_018			Water	1	x	x	x		x	nitric acid
19	MR-AP-MW-5_F4_019			Water	1	x	x	x		x	nitric acid
20	MW-1_F4_020			Water	1	x	x		x	x	nitric acid
21	MW-12_F4_021			Water	1	x	x		x	x	nitric acid
22	Blank_F4_022			Water	1	x	x	x	x	x	nitric acid
23	OLD-MW-2D-F4_012_DUP			Water	1	x	x		x	x	nitric acid

Notes: **CAUTION! F4 samples are concentrated (16N) nitric acid.**

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
SWOF	A25
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Metals

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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20 10:45
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	Blank_F4_022	**Basis:**	NA
Lab Code:	K2004421-011		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/19/20 17:56	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/19/20 17:56	06/09/20	
Iron	6010C	**21 J**	ug/L	42	8	1	06/19/20 17:56	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/19/20 17:56	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/19/20 17:56	06/09/20	

QC Summary Forms

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Metals

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007746-02		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/19/20 16:24	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/19/20 16:24	06/09/20	
Iron	6010C	ND U	ug/L	42	8	1	06/19/20 16:24	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/19/20 16:24	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/19/20 16:24	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	OLD-MW-2D_F4_012	**Units:**	ug/L
Lab Code:	K2004421-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007746-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	ND U	960	1000	96	75-125
Cobalt	74	513	500	88	75-125
Iron	1050000	1020000	1000	-2168 #	75-125
Lithium	ND U	9900	10000	99	75-125
Molybdenum	ND U	952	1000	95	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project	APC SSE	**Date Collected:**	05/28/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20

Replicate Sample Summary
Total Metals

Sample Name:	OLD-MW-2D_F4_012	**Units:**	ug/L
Lab Code:	K2004421-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007746-03 Result	Average	RPD	RPD Limit
Arsenic	6010C	210	50	ND U	ND U	ND	-	20
Cobalt	6010C	11	4	74	76	75	3	20
Iron	6010C	110	40	1050000	1050000	1050000	<1	20
Lithium	6010C	110	30	ND U	ND U	ND	-	20
Molybdenum	6010C	84	21	ND U	ND U	ND	-	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004421
Date Analyzed: 06/19/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007746-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	2540	2500	102	80-120
Cobalt	6010C	1190	1250	95	80-120
Iron	6010C	2340	2500	93	80-120
Lithium	6010C	9940	10000	99	80-120
Molybdenum	6010C	1010	1000	101	80-120

July 20, 2020 Service Request No:K2004415

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004415.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

Narrative Documents

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1317 South 13th Ave, Kelso, WA 98626 | 1-360-577-7222 | www.alsglobal.com

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004415
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by Noe D. Oan Date 06/15/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters																Comments/Preservation
		Date	Time			Arsenic	Lithium	Cobalt		Molybdenum												
1	BY-AP-MW-11_F1_001	5/26/2020	9:00	Water	1	x		x														nitric acid
2	BY-AP-MW-12_F1_002	5/26/2020	9:05	Water	1	x		x														nitric acid
3	BY-AP-MW-13_F1_003	5/26/2020	9:10	Water	1	x		x														nitric acid
4	BY-AP-MW-2_F1_004	5/26/2020	9:15	Water	1	x		x														nitric acid
5	BY-AP-MW-7_F1_005	5/26/2020	9:20	Water	1	x		x														nitric acid
6	BY-AP-MW-9_F1_006	5/26/2020	9:25	Water	1	x		x														nitric acid
7	GC-AP-MW-1_F1_007	5/26/2020	9:30	Water	1	x	x	x														nitric acid
8	GC-AP-MW-11_F1_008	5/26/2020	9:35	Water	1	x	x	x														nitric acid
9	GC-AP-MW-16_F1_009	5/26/2020	9:40	Water	1	x	x	x														nitric acid
10	OLD-MW-11S_F1_010	5/26/2020	9:45	Water	1	x	x			x												nitric acid
11	OLD-MW-11_F1_011	5/26/2020	9:50	Water	1	x	x			x												nitric acid
12	OLD-MW-2D_F1_012	5/26/2020	9:55	Water	1	x	x			x												nitric acid
13	GC-AP-MW-17_F1_013	5/26/2020	10:00	Water	1	x	x	x														nitric acid
14	GN-AP-MW-5_F1_014	5/26/2020	10:05	Water	1	x	x			x												nitric acid
15	GS-AP-MW-6D_F1_015	5/26/2020	10:10	Water	1	x	x			x												nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
BNDZF	AZS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum												Comments/Preservation
16	GS-AP-MW-8_F1_016	5/26/2020	10:15	Water	1	x	x		x												nitric acid
17	MR-AP-MW-3D_F1_017	5/26/2020	10:20	Water	1	x	x	x													nitric acid
18	MR-AP-MW-4_F1_018	5/26/2020	10:25	Water	1	x	x	x													nitric acid
19	MR-AP-MW-5_F1_019	5/26/2020	10:30	Water	1	x	x	x													nitric acid
20	MW-1_F1_020	5/26/2020	10:35	Water	1	x	x		x												nitric acid
21	MW-12_F1_021	5/26/2020	10:40	Water	1	x	x		x												nitric acid
22	Blank_F1_022	5/26/2020	10:45	Water	1	x	x	x	x												nitric acid
23	OLD-MW-2D-F1_012_DUP	5/26/2020	10:50	Water	1	x	x		x												nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
[signature]	AZS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K20 04415

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number (NA)	Filed
✓	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO3	0.5mL	RE1-54-C	CG	1100 6/1/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 10:10
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	GS-AP-MW-6D_F1_015	**Basis:**	NA
Lab Code:	K2004415-015		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 15:21	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/11/20 15:21	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/11/20 15:21	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 10:15
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	GS-AP-MW-8_F1_016	**Basis:**	NA
Lab Code:	K2004415-016		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 15:36	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/11/20 15:36	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/11/20 15:36	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 10:35
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	MW-1_F1_020	**Basis:**	NA
Lab Code:	K2004415-020		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 15:46	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/11/20 15:46	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/11/20 15:46	06/09/20	

QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Metals

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1317 South 13th Avenue, Kelso, WA 98626
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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007740-02		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 14:18	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/11/20 14:18	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/11/20 14:18	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/11/20 14:18	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	BY-AP-MW-11_F1_001	**Units:**	ug/L
Lab Code:	K2004415-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007740-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	13 J	861	1000	85	75-125
Cobalt	0.9 J	440	500	88	75-125
Lithium	ND U	9360	10000	94	75-125
Molybdenum	10.8	1010	1000	100	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20

Replicate Sample Summary
Total Metals

Sample Name:	BY-AP-MW-11_F1_001	**Units:**	ug/L
Lab Code:	K2004415-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007740-03 Result	Average	RPD	RPD Limit
Arsenic	6010C	21	5	13 J	ND U	NC	NC	20
Cobalt	6010C	2.1	0.7	0.9 J	1.1 J	1.0	20	20
Lithium	6010C	21	6	ND U	ND U	ND	-	20
Molybdenum	6010C	8.4	2.1	10.8	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004415
Date Analyzed: 06/11/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007740-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	2440	2500	98	80-120
Cobalt	6010C	1200	1250	96	80-120
Lithium	6010C	9280	10000	93	80-120
Molybdenum	6010C	1010	1000	101	80-120

July 20, 2020 Service Request No:K2004416

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004416.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com

1317 South 13th Ave, Kelso, WA 98626 | 1-360-577-7222 | www.alsglobal.com

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004416
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by Noe D. Oan Date 06/17/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum	Comments/Preservation
16	GS-AP-MW-8_F1_016	5/26/2020	10:15	Water	1	x	x		x	nitric acid
17	MR-AP-MW-3D_F1_017	5/26/2020	10:20	Water	1	x	x	x		nitric acid
18	MR-AP-MW-4_F1_018	5/26/2020	10:25	Water	1	x	x	x		nitric acid
19	MR-AP-MW-5_F1_019	5/26/2020	10:30	Water	1	x	x	x		nitric acid
20	MW-1_F1_020	5/26/2020	10:35	Water	1	x	x		x	nitric acid
21	MW-12_F1_021	5/26/2020	10:40	Water	1	x	x		x	nitric acid
22	Blank_F1_022	5/26/2020	10:45	Water	1	x	x	x	x	nitric acid
23	OLD-MW-2D-F1_012_DUP	5/26/2020	10:50	Water	1	x	x		x	nitric acid

Notes:

Relinquished by:	Company:	Received by:	Company:
Anthony Dalton-Atha	Anchor QEA	[signature]	ALS
Signature/Print Name:	Date/Time:	Signature/Print Name:	Date/Time:
	5/29/2020 10:00		5/29/20 1145

Relinquished by:	Company:	Received by:	Company:
Signature/Print Name:	Date/Time:	Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Page_____of_____

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters																Comments/Preservation
		Date	Time			Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Calcium										
1	BY-AP-MW-11_F2_001	5/27/2020	9:00	Water	1	x		x		x	x	x										nitric acid
2	BY-AP-MW-12_F2_002	5/27/2020	9:05	Water	1	x		x		x	x	x										nitric acid
3	BY-AP-MW-13_F2_003	5/27/2020	9:10	Water	1	x		x		x	x	x										nitric acid
4	BY-AP-MW-2_F2_004	5/27/2020	9:15	Water	1	x		x		x	x	x										nitric acid
5	BY-AP-MW-7_F2_005	5/27/2020	9:20	Water	1	x		x		x	x	x										nitric acid
6	BY-AP-MW-9_F2_006	5/27/2020	9:25	Water	1	x		x		x	x	x										nitric acid
7	GC-AP-MW-1_F2_007	5/27/2020	9:30	Water	1	x	x	x		x	x	x										nitric acid
8	GC-AP-MW-11_F2_008	5/27/2020	9:35	Water	1	x	x	x		x	x	x										nitric acid
9	GC-AP-MW-16_F2_009	5/27/2020	9:40	Water	1	x	x	x		x	x	x										nitric acid
10	OLD-MW-11S_F2_010	5/27/2020	9:45	Water	1	x	x		x	x	x	x										nitric acid
11	OLD-MW-11_F2_011	5/27/2020	9:50	Water	1	x	x		x	x	x	x										nitric acid
12	OLD-MW-2D_F2_012	5/27/2020	9:55	Water	1	x	x		x	x	x	x										nitric acid
13	GC-AP-MW-17_F2_013	5/27/2020	10:00	Water	1	x	x	x		x	x	x										nitric acid
14	GN-AP-MW-5_F2_014	5/27/2020	10:05	Water	1	x	x		x	x	x	x										nitric acid
15	GS-AP-MW-6D_F2_015	5/27/2020	10:10	Water	1	x	x		x	x	x	x										nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
Swarf	ALS
Signature/Print Name:	Date/Time:
A	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Calcium										Comments/Preservation
16	GS-AP-MW-8_F2_016	5/27/2020	10:15	Water	1	x	x		x	x	x	x										nitric acid
17	MR-AP-MW-3D_F2_017	5/27/2020	10:20	Water	1	x	x	x		x	x	x										nitric acid
18	MR-AP-MW-4_F2_018	5/27/2020	10:25	Water	1	x	x	x		x	x	x										nitric acid
19	MR-AP-MW-5_F2_019	5/27/2020	10:30	Water	1	x	x	x		x	x	x										nitric acid
20	MW-1_F2_020	5/27/2020	10:35	Water	1	x	x		x	x	x	x										nitric acid
21	MW-12_F2_021	5/27/2020	10:40	Water	1	x	x		x	x	x	x										nitric acid
22	Blank_F2_022	5/27/2020	10:45	Water	1	x	x	x	x	x	x	x										nitric acid
23	OLD-MW-2D-F2_012_DUP	5/27/2020	10:50	Water	1	x	x		x	x	x	x										nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K2044416

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* (*Courier*) *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number (NA)	Filed
—	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO_3	0.5mL	RE1-54-C	CG	1100 6/1/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
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www.alsglobal.com

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com

Metals

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/26/20 10:40
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	MW-12_F1_021	**Basis:**	NA
Lab Code:	K2004416-001		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 15:09	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/11/20 15:09	06/09/20	
Molybdenum	6010C	**52.0**	ug/L	8.4	2.1	1	06/11/20 15:09	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 10:10
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	GS-AP-MW-6D_F2_015	**Basis:**	NA
Lab Code:	K2004416-018		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**9 J**	ug/L	21	5	1	06/15/20 12:33	06/09/20	
Calcium	6010C	**1140**	ug/L	21	3	1	06/15/20 12:33	06/09/20	
Iron	6010C	**430**	ug/L	42	8	1	06/15/20 12:33	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/15/20 12:33	06/09/20	
Manganese	6010C	**31.8**	ug/L	1.1	0.2	1	06/15/20 12:33	06/09/20	
Molybdenum	6010C	**13.1**	ug/L	8.4	2.1	1	06/15/20 12:33	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 10:15
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	GS-AP-MW-8_F2_016	**Basis:**	NA
Lab Code:	K2004416-019		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**86**	ug/L	21	5	1	06/15/20 12:36	06/09/20	
Calcium	6010C	**265**	ug/L	21	3	1	06/15/20 12:36	06/09/20	
Iron	6010C	**1160**	ug/L	42	8	1	06/15/20 12:36	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/15/20 12:36	06/09/20	
Manganese	6010C	**41.4**	ug/L	1.1	0.2	1	06/15/20 12:36	06/09/20	
Molybdenum	6010C	**7.2 J**	ug/L	8.4	2.1	1	06/15/20 12:36	06/09/20	

QC Summary Forms

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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007741-02		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 15:02	06/09/20	
Calcium	6010C	**3 J**	ug/L	21	3	1	06/11/20 15:02	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/11/20 15:02	06/09/20	
Iron	6010C	ND U	ug/L	21	8	1	06/11/20 15:02	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/11/20 15:02	06/09/20	
Manganese	6010C	**0.4 J**	ug/L	1.1	0.2	1	06/11/20 15:02	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/11/20 15:02	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	MW-12_F1_021	**Units:**	ug/L
Lab Code:	K2004416-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007741-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	ND U	916	1000	92	75-125
Calcium	4060	13300	10000	93	75-125
Cobalt	16.9	427	500	82	75-125
Iron	62	975	1000	91	75-125
Lithium	ND U	10000	10000	100	75-125
Manganese	287	774	500	97	75-125
Molybdenum	52.0	999	1000	95	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20

Replicate Sample Summary
Total Metals

Sample Name:	MW-12_F1_021	**Units:**	ug/L
Lab Code:	K2004416-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007741-03 Result	Average	RPD	RPD Limit
Arsenic	6010C	21	5	ND U	ND U	ND	-	20
Calcium	6010C	21	3	4060	4050	4060	<1	20
Cobalt	6010C	2.1	0.7	16.9	17.9	17.4	6	20
Iron	6010C	21	8	62	62	62	<1	20
Lithium	6010C	21	6	ND U	ND U	ND	-	20
Manganese	6010C	1.1	0.2	287	290	289	1	20
Molybdenum	6010C	8.4	2.1	52.0	52.3	52.2	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004416
Date Analyzed: 06/11/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007741-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	2790	2500	111	80-120
Calcium	6010C	12600	12500	101	80-120
Cobalt	6010C	1230	1250	98	80-120
Iron	6010C	2490	2500	99	80-120
Lithium	6010C	9750	10000	98	80-120
Manganese	6010C	1250	1250	100	80-120
Molybdenum	6010C	1040	1000	104	80-120

July 20, 2020 Service Request No:K2004418

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004418.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Kelso Laboratory
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www.alsglobal.com

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ALS Environmental

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004418
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Five water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 06/19/2020: Samples in this delivery group required dilution to non-target matrix components. Attempts to analyze the undiluted samples resulted in failed instrument QC check samples. The detection limits were elevated accordingly. No further corrective action was appropriate.

Approved by _____ Date 06/22/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters																Comments/Preservation
		Date	Time			Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Calcium										
16	GS-AP-MW-8_F2_016	5/27/2020	10:15	Water	1	x	x		x	x	x	x										nitric acid
17	MR-AP-MW-3D_F2_017	5/27/2020	10:20	Water	1	x	x	x		x	x	x										nitric acid
18	MR-AP-MW-4_F2_018	5/27/2020	10:25	Water	1	x	x	x		x	x	x										nitric acid
19	MR-AP-MW-5_F2_019	5/27/2020	10:30	Water	1	x	x	x		x	x	x										nitric acid
20	MW-1_F2_020	5/27/2020	10:35	Water	1	x	x		x	x	x	x										nitric acid
21	MW-12_F2_021	5/27/2020	10:40	Water	1	x	x		x	x	x	x										nitric acid
22	Blank_F2_022	5/27/2020	10:45	Water	1	x	x	x	x	x	x	x										nitric acid
23	OLD-MW-2D-F2_012_DUP	5/27/2020	10:50	Water	1	x	x		x	x	x	x										nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Aluminum	Comments/Preservation
1	BY-AP-MW-11_F3_001			Water	1	x		x		x	x	x	nitric acid
2	BY-AP-MW-12_F3_002			Water	1	x		x		x	x	x	nitric acid
3	BY-AP-MW-13_F3_003			Water	1	x		x		x	x	x	nitric acid
4	BY-AP-MW-2_F3_004			Water	1	x		x		x	x	x	nitric acid
5	BY-AP-MW-7_F3_005			Water	1	x		x		x	x	x	nitric acid
6	BY-AP-MW-9_F3_006			Water	1	x		x		x	x	x	nitric acid
7	GC-AP-MW-1_F3_007			Water	1	x	x	x		x	x	x	nitric acid
8	GC-AP-MW-11_F3_008			Water	1	x	x	x		x	x	x	nitric acid
9	GC-AP-MW-16_F3_009			Water	1	x	x	x		x	x	x	nitric acid
10	OLD-MW-11S_F3_010			Water	1	x	x		x	x	x	x	nitric acid
11	OLD-MW-11_F3_011			Water	1	x	x		x	x	x	x	nitric acid
12	OLD-MW-2D_F3_012			Water	1	x	x		x	x	x	x	nitric acid
13	GC-AP-MW-17_F3_013			Water	1	x	x	x		x	x	x	nitric acid
14	GN-AP-MW-5_F3_014			Water	1	x	x		x	x	x	x	nitric acid
15	GS-AP-MW-6D_F3_015			Water	1	x	x		x	x	x	x	nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
[signature]	ALS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K2004418

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* (*Courier*) *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number (NA)	Filed
—	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO_3	0.5mL	RE1-54-C	CG	1100 6/4/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Miscellaneous Forms

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Phone (360) 577-7222 Fax (360) 425-9096
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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/27/20 10:50
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	OLD-MW-2D-F2_012_DUP	**Basis:**	NA
Lab Code:	K2004418-006		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**30 J**	ug/L	110	30	5	06/19/20 12:17	06/09/20	
Calcium	6010C	**25600**	ug/L	110	20	5	06/19/20 12:17	06/09/20	
Iron	6010C	**440**	ug/L	210	40	5	06/19/20 12:17	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:17	06/09/20	
Manganese	6010C	**667**	ug/L	5.3	1.1	5	06/19/20 12:17	06/09/20	
Molybdenum	6010C	ND U	ug/L	42	11	5	06/19/20 12:17	06/09/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:45
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	OLD-MW-11S_F3_010	**Basis:**	NA
Lab Code:	K2004418-016		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**600**	ug/L	110	30	5	06/19/20 12:50	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:50	06/09/20	
Iron	6010C	**3720**	ug/L	210	40	5	06/19/20 12:50	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:50	06/09/20	
Manganese	6010C	**607**	ug/L	5.3	1.1	5	06/19/20 12:50	06/09/20	
Molybdenum	6010C	ND U	ug/L	42	11	5	06/19/20 12:50	06/09/20	

ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:50
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	OLD-MW-11_F3_011	**Basis:**	NA
Lab Code:	K2004418-017		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**770**	ug/L	110	30	5	06/19/20 12:53	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:53	06/09/20	
Iron	6010C	**2280**	ug/L	210	40	5	06/19/20 12:53	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:53	06/09/20	
Manganese	6010C	**961**	ug/L	5.3	1.1	5	06/19/20 12:53	06/09/20	
Molybdenum	6010C	ND U	ug/L	42	11	5	06/19/20 12:53	06/09/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:55
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	OLD-MW-2D_F3_012	**Basis:**	NA
Lab Code:	K2004418-018		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**50 J**	ug/L	110	30	5	06/19/20 12:55	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:55	06/09/20	
Iron	6010C	**2370**	ug/L	210	40	5	06/19/20 12:55	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:55	06/09/20	
Manganese	6010C	**410**	ug/L	5.3	1.1	5	06/19/20 12:55	06/09/20	
Molybdenum	6010C	ND U	ug/L	42	11	5	06/19/20 12:55	06/09/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 10:05
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	GN-AP-MW-5_F3_014	**Basis:**	NA
Lab Code:	K2004418-020		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**180**	ug/L	110	30	5	06/19/20 13:00	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 13:00	06/09/20	
Iron	6010C	**1040**	ug/L	210	40	5	06/19/20 13:00	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 13:00	06/09/20	
Manganese	6010C	**102**	ug/L	5.3	1.1	5	06/19/20 13:00	06/09/20	
Molybdenum	6010C	ND U	ug/L	42	11	5	06/19/20 13:00	06/09/20	

QC Summary Forms

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Metals

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007742-02		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	ND U	ug/L	21	5	1	06/19/20 11:09	06/09/20	
Arsenic	6010C	ND U	ug/L	21	5	1	06/19/20 11:09	06/09/20	
Calcium	6010C	**8 J**	ug/L	21	3	1	06/19/20 11:09	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/19/20 11:09	06/09/20	
Iron	6010C	ND U	ug/L	21	8	1	06/19/20 11:09	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/19/20 11:09	06/09/20	
Manganese	6010C	ND U	ug/L	1.1	0.2	1	06/19/20 11:09	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/19/20 11:09	06/09/20	

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/27/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	MR-AP-MW-4_F2_018	**Units:**	ug/L
Lab Code:	K2004418-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007742-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Aluminum	790	2470	2000	84	75-125
Arsenic	ND U	980	1000	98	75-125
Calcium	9980	19600	10000	97	75-125
Cobalt	14	481	500	93	75-125
Iron	300	1270	1000	97	75-125
Lithium	ND U	10300	10000	103	75-125
Manganese	1960	2350	500	78	75-125
Molybdenum	24 J	1050	1000	102	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project	APC SSE	**Date Collected:**	05/27/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20

Replicate Sample Summary
Total Metals

Sample Name:	MR-AP-MW-4_F2_018	**Units:**	ug/L
Lab Code:	K2004418-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007742-03 Result	Average	RPD	RPD Limit
Aluminum	6010C	110	30	790	760	780	4	20
Arsenic	6010C	110	30	ND U	ND U	ND	-	20
Calcium	6010C	110	20	9980	9390	9690	6	20
Cobalt	6010C	11	4	14	11	13	24 #	20
Iron	6010C	110	40	300	310	310	3	20
Lithium	6010C	110	30	ND U	ND U	ND	-	20
Manganese	6010C	5.3	1.1	1960	1850	1910	6	20
Molybdenum	6010C	42	11	24 J	18 J	21	29 #	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004418
Date Analyzed: 06/19/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007742-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum	6010C	5240	5000	105	80-120
Arsenic	6010C	2610	2500	105	80-120
Calcium	6010C	12800	12500	102	80-120
Cobalt	6010C	1210	1250	97	80-120
Iron	6010C	2580	2500	103	80-120
Lithium	6010C	10600	10000	106	80-120
Manganese	6010C	1220	1250	97	80-120
Molybdenum	6010C	1030	1000	103	80-120

July 20, 2020 Service Request No:K2004418

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004418.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

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Narrative Documents

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ALS Environmental

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004418
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Two water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 06/19/2020: Samples in this delivery group required dilution to non-target matrix components. Attempts to analyze the undiluted samples resulted in failed instrument QC check samples. The detection limits were elevated accordingly. No further corrective action was appropriate.

Approved by _____ Date 06/22/2020

Sample Receipt Information

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www.alsglobal.com

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters																Comments/Preservation
		Date	Time			Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Calcium										
16	GS-AP-MW-8_F2_016	5/27/2020	10:15	Water	1	x	x		x	x	x	x										nitric acid
17	MR-AP-MW-3D_F2_017	5/27/2020	10:20	Water	1	x	x	x		x	x	x										nitric acid
18	MR-AP-MW-4_F2_018	5/27/2020	10:25	Water	1	x	x	x		x	x	x										nitric acid
19	MR-AP-MW-5_F2_019	5/27/2020	10:30	Water	1	x	x	x		x	x	x										nitric acid
20	MW-1_F2_020	5/27/2020	10:35	Water	1	x	x		x	x	x	x										nitric acid
21	MW-12_F2_021	5/27/2020	10:40	Water	1	x	x		x	x	x	x										nitric acid
22	Blank_F2_022	5/27/2020	10:45	Water	1	x	x	x	x	x	x	x										nitric acid
23	OLD-MW-2D-F2_012_DUP	5/27/2020	10:50	Water	1	x	x		x	x	x	x										nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K2004418

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* (*Courier*) *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number (NA)	Filed
—	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO_3	0.5mL	RE1-54-C	CG	1100 6/4/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Miscellaneous Forms

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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/27/20 10:35
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	MW-1_F2_020	**Basis:**	NA
Lab Code:	K2004418-003		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:10	06/09/20	
Calcium	6010C	**590**	ug/L	110	20	5	06/19/20 12:10	06/09/20	
Iron	6010C	**940**	ug/L	210	40	5	06/19/20 12:10	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:10	06/09/20	
Manganese	6010C	**663**	ug/L	5.3	1.1	5	06/19/20 12:10	06/09/20	
Molybdenum	6010C	**18 J**	ug/L	42	11	5	06/19/20 12:10	06/09/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/27/20 10:40
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	MW-12_F2_021	**Basis:**	NA
Lab Code:	K2004418-004		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**70 J**	ug/L	110	30	5	06/19/20 12:12	06/09/20	
Calcium	6010C	**500**	ug/L	110	20	5	06/19/20 12:12	06/09/20	
Iron	6010C	**1850**	ug/L	210	40	5	06/19/20 12:12	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:12	06/09/20	
Manganese	6010C	**174**	ug/L	5.3	1.1	5	06/19/20 12:12	06/09/20	
Molybdenum	6010C	**70**	ug/L	42	11	5	06/19/20 12:12	06/09/20	

QC Summary Forms

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Metals

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ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007742-02		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	ND U	ug/L	21	5	1	06/19/20 11:09	06/09/20	
Arsenic	6010C	ND U	ug/L	21	5	1	06/19/20 11:09	06/09/20	
Calcium	6010C	**8 J**	ug/L	21	3	1	06/19/20 11:09	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/19/20 11:09	06/09/20	
Iron	6010C	ND U	ug/L	21	8	1	06/19/20 11:09	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/19/20 11:09	06/09/20	
Manganese	6010C	ND U	ug/L	1.1	0.2	1	06/19/20 11:09	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/19/20 11:09	06/09/20	

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/27/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	MR-AP-MW-4_F2_018	**Units:**	ug/L
Lab Code:	K2004418-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007742-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Aluminum	790	2470	2000	84	75-125
Arsenic	ND U	980	1000	98	75-125
Calcium	9980	19600	10000	97	75-125
Cobalt	14	481	500	93	75-125
Iron	300	1270	1000	97	75-125
Lithium	ND U	10300	10000	103	75-125
Manganese	1960	2350	500	78	75-125
Molybdenum	24 J	1050	1000	102	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project	APC SSE	**Date Collected:**	05/27/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20

Replicate Sample Summary
Total Metals

Sample Name:	MR-AP-MW-4_F2_018	**Units:**	ug/L
Lab Code:	K2004418-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007742-03 Result	Average	RPD	RPD Limit
Aluminum	6010C	110	30	790	760	780	4	20
Arsenic	6010C	110	30	ND U	ND U	ND	-	20
Calcium	6010C	110	20	9980	9390	9690	6	20
Cobalt	6010C	11	4	14	11	13	24 #	20
Iron	6010C	110	40	300	310	310	3	20
Lithium	6010C	110	30	ND U	ND U	ND	-	20
Manganese	6010C	5.3	1.1	1960	1850	1910	6	20
Molybdenum	6010C	42	11	24 J	18 J	21	29 #	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004418
Date Analyzed: 06/19/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007742-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum	6010C	5240	5000	105	80-120
Arsenic	6010C	2610	2500	105	80-120
Calcium	6010C	12800	12500	102	80-120
Cobalt	6010C	1210	1250	97	80-120
Iron	6010C	2580	2500	103	80-120
Lithium	6010C	10600	10000	106	80-120
Manganese	6010C	1220	1250	97	80-120
Molybdenum	6010C	1030	1000	103	80-120

July 20, 2020 Service Request No:K2004421

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004421.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

Narrative Documents

ALS Environmental—Kelso Laboratory
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ALS Environmental

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004421
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Four water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 06/19/2020: Samples in this delivery group required dilution to non-target matrix components. Attempts to analyze the undiluted samples resulted in failed instrument QC check samples. The detection limits were elevated accordingly. No further corrective action was appropriate.

Approved by _____ Date 06/22/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
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www.alsglobal.com

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum	Iron											Comments/Preservation
1	BY-AP-MW-11_F4_001			Water	1	x		x		x											nitric acid
2	BY-AP-MW-12_F4_002			Water	1	x		x		x											nitric acid
3	BY-AP-MW-13_F4_003			Water	1	x		x		x											nitric acid
4	BY-AP-MW-2_F4_004			Water	1	x		x		x											nitric acid
5	BY-AP-MW-7_F4_005			Water	1	x		x		x											nitric acid
6	BY-AP-MW-9_F4_006			Water	1	x		x		x											nitric acid
7	GC-AP-MW-1_F4_007			Water	1	x	x	x		x											nitric acid
8	GC-AP-MW-11_F4_008			Water	1	x	x	x		x											nitric acid
9	GC-AP-MW-16_F4_009			Water	1	x	x	x		x											nitric acid
10	OLD-MW-11S_F4_010			Water	1	x	x		x	x											nitric acid
11	OLD-MW-11_F4_011			Water	1	x	x		x	x											nitric acid
12	OLD-MW-2D_F4_012			Water	1	x	x		x	x											nitric acid
13	GC-AP-MW-17_F4_013			Water	1	x	x	x		x											nitric acid
14	GN-AP-MW-5_F4_014			Water	1	x	x		x	x											nitric acid
15	GS-AP-MW-6D_F4_015			Water	1	x	x		x	x											nitric acid

Notes: **CAUTION! F4 samples are concentrated (16N) nitric acid.**

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
[signature]	ALS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum	Iron	Comments/Preservation
16	GS-AP-MW-8_F4_016			Water	1	x	x		x	x	nitric acid
17	MR-AP-MW-3D_F4_017			Water	1	x	x	x		x	nitric acid
18	MR-AP-MW-4_F4_018			Water	1	x	x	x		x	nitric acid
19	MR-AP-MW-5_F4_019			Water	1	x	x	x		x	nitric acid
20	MW-1_F4_020			Water	1	x	x		x	x	nitric acid
21	MW-12_F4_021			Water	1	x	x		x	x	nitric acid
22	Blank_F4_022			Water	1	x	x	x	x	x	nitric acid
23	OLD-MW-2D-F4_012_DUP			Water	1	x	x		x	x	nitric acid

Notes: **CAUTION! F4 samples are concentrated (16N) nitric acid.**

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
SWOF	A25
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K2004421

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* (*Courier*) *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number (NA)	Filed
✓	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO3	0.5mL	RE1-54-C	CG	1100 6/6/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Miscellaneous Forms

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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20 10:10
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	GS-AP-MW-6D_F4_015	**Basis:**	NA
Lab Code:	K2004421-004		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 16:58	06/09/20	
Iron	6010C	**3530**	ug/L	110	40	5	06/19/20 11:37	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 11:37	06/09/20	
Molybdenum	6010C	ND U	ug/L	42	11	5	06/19/20 16:58	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20 10:15
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	GS-AP-MW-8_F4_016	**Basis:**	NA
Lab Code:	K2004421-005		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**380**	ug/L	210	50	10	06/19/20 17:12	06/09/20	
Iron	6010C	**2180000**	ug/L	420	80	10	06/19/20 17:12	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 11:41	06/09/20	
Molybdenum	6010C	ND U	ug/L	84	21	10	06/19/20 17:12	06/09/20	

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dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20 10:35
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	MW-1_F4_020	**Basis:**	NA
Lab Code:	K2004421-009		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 17:26	06/09/20	
Iron	6010C	**37100**	ug/L	110	40	5	06/19/20 12:38	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:38	06/09/20	
Molybdenum	6010C	**55**	ug/L	42	11	5	06/19/20 17:26	06/09/20	

ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20 10:40
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	MW-12_F4_021	**Basis:**	NA
Lab Code:	K2004421-010		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**300**	ug/L	110	30	5	06/19/20 17:30	06/09/20	
Iron	6010C	**135000**	ug/L	110	40	5	06/19/20 12:41	06/09/20	
Lithium	6010C	ND U	ug/L	110	30	5	06/19/20 12:41	06/09/20	
Molybdenum	6010C	**144**	ug/L	42	11	5	06/19/20 17:30	06/09/20	

QC Summary Forms

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Metals

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007746-02		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/19/20 16:24	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/19/20 16:24	06/09/20	
Iron	6010C	ND U	ug/L	42	8	1	06/19/20 16:24	06/09/20	
Lithium	6010C	ND U	ug/L	21	6	1	06/19/20 16:24	06/09/20	
Molybdenum	6010C	ND U	ug/L	8.4	2.1	1	06/19/20 16:24	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	OLD-MW-2D_F4_012	**Units:**	ug/L
Lab Code:	K2004421-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007746-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	ND U	960	1000	96	75-125
Cobalt	74	513	500	88	75-125
Iron	1050000	1020000	1000	-2168 #	75-125
Lithium	ND U	9900	10000	99	75-125
Molybdenum	ND U	952	1000	95	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project	APC SSE	**Date Collected:**	05/28/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20

Replicate Sample Summary
Total Metals

Sample Name:	OLD-MW-2D_F4_012	**Units:**	ug/L
Lab Code:	K2004421-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007746-03 Result	Average	RPD	RPD Limit
Arsenic	6010C	210	50	ND U	ND U	ND	-	20
Cobalt	6010C	11	4	74	76	75	3	20
Iron	6010C	110	40	1050000	1050000	1050000	<1	20
Lithium	6010C	110	30	ND U	ND U	ND	-	20
Molybdenum	6010C	84	21	ND U	ND U	ND	-	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004421
Date Analyzed: 06/19/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007746-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	2540	2500	102	80-120
Cobalt	6010C	1190	1250	95	80-120
Iron	6010C	2340	2500	93	80-120
Lithium	6010C	9940	10000	99	80-120
Molybdenum	6010C	1010	1000	101	80-120

July 21, 2020 Service Request No:K2004639

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory June 04, 2020
For your reference, these analyses have been assigned our service request number **K2004639.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

Narrative Documents

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ALS Environmental

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Soil

Service Request: K2004639
Date Received: 06/04/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty three soil samples were received for analysis at ALS Environmental on 06/04/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by Noel D. Davis

Date 07/21/2020

Sample Receipt Information

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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

4 200439

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum											Comments/Preservation
1	BY-AP-MW-11_F5_001			SED	1															
2	BY-AP-MW-12_F5_002			SED	1															
3	BY-AP-MW-13_F5_003			SED	1															
4	BY-AP-MW-2_F5_004			SED	1															
5	BY-AP-MW-7_F5_005			SED	1															
6	BY-AP-MW-9_F5_006			SED	1															
7	GC-AP-MW-1_F5_007			SED	1															
8	GC-AP-MW-11_F5_008			SED	1															
9	GC-AP-MW-16_F5_009			SED	1															
10	OLD-MW-11S_F5_010			SED	1															
11	OLD-MW-11_F5_011			SED	1															
12	OLD-MW-2D_F5_012			SED	1															
13	GC-AP-MW-17_F5_013			SED	1															
14	GN-AP-MW-5_F5_014			SED	1															
15	GS-AP-MW-6D_F5_015			SED	1															nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time: 6/4/2020 ~~5/29/2020~~ 10:00

Received by:	Company:
	HLS 6/4/20 1420
Signature/Print Name:	Date/Time:

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

K2004639

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum											Comments/Preservation
16	GS-AP-MW-8_F5_016			SED	1															
17	MR-AP-MW-3D_F5_017			SED	1															
18	MR-AP-MW-4_F5_018			SED	1															
19	MR-AP-MW-5_F5_019			SED	1															
20	MW-1_F5_020			SED	1															
21	MW-12_F5_021			SED	1															
22	Blank_F5_022			SED	1															
23	OLD-MW-2D-F5_012_DUP			SED	1															

Notes:

Relinquished by:	Company:	Received by:	Company:
Anthony Dalton-Atha	Anchor QEA	[signature]	AQS 6/4/20 1420
Signature/Print Name:	Date/Time: 6/4/2020 MW 5/29/2020 10:00	Signature/Print Name:	Date/Time:
[signature]			
Relinquished by:	Company:	Received by:	Company:
Signature/Print Name:	Date/Time:	Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client Anchor QEA Service Request *K20* 04639

Received: 6/4/20 Opened: 6/4/20 By: KN Unloaded: 6/4/20 By: KN

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number (NA)	Filed
N/A	15.5	17.9	13.2	17.0	TR02			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* Blue ice
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Miscellaneous Forms

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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	GS-AP-MW-6D_F5_015	**Basis:**	As Received
Lab Code:	K2004639-015		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	mg/Kg	8.3	2.1	2	06/18/20 16:45	06/15/20	
Cobalt	6010C	**0.23 J**	mg/Kg	0.83	0.10	2	06/18/20 16:45	06/15/20	
Lithium	6010C	ND U	mg/Kg	4.1	0.6	2	06/18/20 16:45	06/15/20	
Molybdenum	6010C	ND U	mg/Kg	0.83	0.21	2	06/18/20 16:45	06/15/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	GS-AP-MW-8_F5_016	**Basis:**	As Received
Lab Code:	K2004639-016		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	mg/Kg	16	4	2	06/18/20 16:55	06/15/20	
Cobalt	6010C	**0.9 J**	mg/Kg	1.6	0.2	2	06/18/20 16:55	06/15/20	
Lithium	6010C	ND U	mg/Kg	8.0	1.2	2	06/18/20 16:55	06/15/20	
Molybdenum	6010C	**8.1**	mg/Kg	1.6	0.4	2	06/18/20 16:55	06/15/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	MW-1_F5_020	**Basis:**	As Received
Lab Code:	K2004639-020		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**2.9 J**	mg/Kg	8.8	2.2	2	06/18/20 17:05	06/15/20	
Cobalt	6010C	**1.63**	mg/Kg	0.88	0.11	2	06/18/20 17:05	06/15/20	
Lithium	6010C	**3.7 J**	mg/Kg	4.4	0.7	2	06/18/20 17:05	06/15/20	
Molybdenum	6010C	**6.51**	mg/Kg	0.88	0.22	2	06/18/20 17:05	06/15/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	MW-12_F5_021	**Basis:**	As Received
Lab Code:	K2004639-021		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**14.5**	mg/Kg	8.2	2.0	2	06/18/20 17:15	06/15/20	
Cobalt	6010C	**9.24**	mg/Kg	0.82	0.10	2	06/18/20 17:15	06/15/20	
Lithium	6010C	**7.1**	mg/Kg	4.1	0.6	2	06/18/20 17:15	06/15/20	
Molybdenum	6010C	**50.8**	mg/Kg	0.82	0.20	2	06/18/20 17:15	06/15/20	

QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Metals

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	As Received
Lab Code:	KQ2007817-01		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	mg/Kg	8.0	2.0	2	06/18/20 15:50	06/15/20	
Cobalt	6010C	ND U	mg/Kg	0.80	0.10	2	06/18/20 15:50	06/15/20	
Lithium	6010C	ND U	mg/Kg	4.0	0.6	2	06/18/20 15:50	06/15/20	
Molybdenum	6010C	ND U	mg/Kg	0.80	0.20	2	06/18/20 15:50	06/15/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	As Received
Lab Code:	KQ2007818-01		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	mg/Kg	8.0	2.0	2	06/18/20 17:08	06/15/20	
Cobalt	6010C	ND U	mg/Kg	0.80	0.10	2	06/18/20 17:08	06/15/20	
Lithium	6010C	ND U	mg/Kg	4.0	0.6	2	06/18/20 17:08	06/15/20	
Molybdenum	6010C	ND U	mg/Kg	0.80	0.20	2	06/18/20 17:08	06/15/20	

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QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Soil

Service Request: K2004639
Date Analyzed: 06/18/20

Lab Control Sample Summary
Total Metals

Units: mg/Kg
Basis: As Received

Lab Control Sample
KQ2007817-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	97.3	100	97	80-120
Cobalt	6010C	96.0	100	96	80-120
Lithium	6010C	490	500	98	80-120
Molybdenum	6010C	101	100	101	80-120

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QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Soil

Service Request: K2004639
Date Analyzed: 06/18/20

Lab Control Sample Summary
Total Metals

Units: mg/Kg
Basis: As Received

Lab Control Sample
KQ2007818-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	94.5	100	95	80-120
Cobalt	6010C	93.6	100	94	80-120
Lithium	6010C	477	500	95	80-120
Molybdenum	6010C	98.1	100	98	80-120