

**2023 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT GORGAS
BOTTOM ASH LANDFILL**

January 31, 2024

Prepared for

Alabama Power Company
Birmingham, Alabama

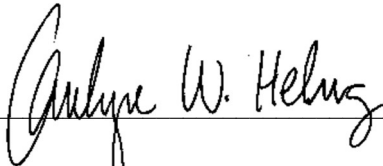
By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This 2023 Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Gorgas Bottom Ash Landfill has been prepared in accordance with the United States Environmental Protection Agency's coal combustion residual rule (40 CFR Part 257, Subpart D), ADEM Admin. Code Ch. 335-13-15, and Part E of ADEM Administrative Order No. 18-096-GW, 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.



Annelise W. Helms, P.G.

AL Registered Professional Geologist No. 1601

1/31/2024

Date



Gregory Whetstone, P.E.

AL Registered Professional Engineer No. 27885



1/31/2024

Date

EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and ADEM Administrative Order (AO) No. 18-096-GW, this 2023 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the first and second semi-annual assessment groundwater monitoring activities at the Alabama Power Company (APC) William Crawford Gorgas Electric Generating Plant (Plant Gorgas) Bottom Ash Landfill (BALF) and to satisfy the requirements of 40 CFR § 257.90(e), ADEM Admin. Code r. 335-13-15-.06(1)(f), and Part E of AO 18-096-GW. Semi-annual assessment monitoring and associated reporting for the Plant Gorgas BALF were performed in accordance with the monitoring requirements in 40 CFR § 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 corrective action pursuant to 40 CFR § 257.98, ADEM Admin. Code r. 335-13-15-.06(9), and AO No. 18-096-GW. Statistically significant increases (SSI) 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 arsenic were identified in one well while in assessment monitoring. Consequently, an Alternate Source Demonstration (ASD) was submitted to ADEM for the reported arsenic SSL in June 2019.

APC completed an Assessment of Corrective Measures (ACM) report, submitted to ADEM in June 2019, to address the occurrence of constituents in groundwater at SSL at the Plant Gorgas Ash Pond and Gypsum Pond. In February 2020, APC revised the ACM to include the BALF.

Since the ACM was submitted, APC has performed investigations to select effective corrective measures to address the SSL at the BALF. The Groundwater Remedy Selection Report was prepared to meet the requirements of 40 CFR § 257.97, ADEM Admin. Code r. 335-13-15-.06(8), and Part C of AO No.18-096-GW and was submitted to ADEM on December 17, 2021. The Corrective Action Groundwater Monitoring Program presenting the groundwater corrective actions to be implemented at the Site was submitted to ADEM on March 15, 2022.

The Corrective Action Groundwater Monitoring Program meets the requirements of 40 CFR § 257.98 and ADEM Admin. Code r. 335-13-15-.06(9) to detect potential downgradient changes in groundwater quality

and assess the efficacy of the selected groundwater corrective action remedies. It will supplement the ongoing CCR compliance groundwater monitoring at the Site. However, the pending ASD review decision by ADEM will affect future actions for the site. If approved, the site will return to assessment monitoring.

Statistical evaluations of the first 2023 semi-annual monitoring data identified an SSL of arsenic above the GWPS in one well (MW-12). The following activities were conducted during the first semi-annual monitoring period of 2023:

- Submitted the 2022 Annual Groundwater Monitoring and Corrective Action Report on January 31, 2023.
- Completed the first semi-annual assessment groundwater sampling event between February 20, 2023, and February 22, 2023.

The BALF concluded the first 2023 monitoring period in assessment monitoring. The following activities were conducted during the second semi-annual monitoring period of 2023:

- Submitted the 2023 Semi-Annual Groundwater Monitoring and Corrective Action Report on July 31, 2023.
- Completed the second semi-annual assessment groundwater sampling event between August 15, 2023, and August 22, 2023.

The CCR unit concluded the second 2023 monitoring period in corrective action and APC has begun implementing the selected groundwater remedies identified in the Groundwater Remedy Selection Report submitted to ADEM in December 2021 and detailed in the Corrective Action Groundwater Monitoring Program document submitted in March 2022. The following routine future actions will be taken or are recommended for the site:

- Evaluate recently collected MNA parameter data and ongoing compliance monitoring data to determine the effectiveness of the selected remedies in meeting long-term groundwater protection standards at the site.
- Conduct the first semi-annual assessment monitoring event in 2024 and submit the semi-annual groundwater monitoring and corrective action report summarizing the findings to ADEM by July 31, 2024.

**Executive Summary Table.
Monitoring Period Summary
Plant Gorgas - Bottom Ash Landfill**

Assessment Monitoring Initiated: January 15, 2018
 Monitoring Period: January 1 - December 31, 2023
 Beginning Status: Corrective Action
 Ending Status: Corrective Action

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	MW-10, MW-11, MW-12.
Calcium	MW-7
Chloride	MW-7, MW-8, MW-11, MW-12.
Fluoride	MW-1, MW-2, MW-7, and MW-12.
pH	MW-7, MW-8, MW-10, MW-11.
Sulfate	None.
TDS	None.

Appendix IV SSLs

Parameter	Wells
Arsenic	MW-12.

* 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 Bottom Ash Landfill: February 28, 2020
 Public Meeting Date: July 1, 2020

Groundwater Remedy

Remedy Selection Date: December 17, 2021
 Initiated During Period: Yes
 Ongoing During Period: Yes

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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), the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and ADEM Administrative Order (AO) No. 18-096-GW, this *2023 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document the first and second semi-annual assessment groundwater monitoring activities for 2023 at the Plant Gorgas BALF and to satisfy the requirements of 40 CFR § 257.90(e), ADEM Admin. Code r. 335-13-15-.06(1)(f), and Part E of AO No. 18-096-GW. Semi-annual assessment monitoring and associated reporting for Plant Gorgas BALF is performed in accordance with the monitoring requirements in 40 CFR § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

Semi-Annual Groundwater Monitoring and Corrective Action Reports include an update on groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018) and corrective action activities completed since the submittal of the Corrective Action Groundwater Monitoring Program (March 15, 2022).

2.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSI of Appendix III constituents and SSL of one Appendix IV constituent (arsenic) were identified at the Plant Gorgas BALF during the first and second semi-annual sampling events of 2023. An ASD was submitted to ADEM for arsenic SSLs above the GWPS in June of 2019. The Plant Gorgas ACM prepared under 40 CFR § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and AO No. 18-096-GW was amended to include the Bottom Ash Landfill in February 2020.

In accordance with 40 CFR § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6), APC will continue semi-annual assessment monitoring, including all monitoring wells in the certified groundwater monitoring system and any well installed to characterize the horizontal and vertical extent of SSLs.

3.0 SITE LOCATION AND DESCRIPTION

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).

The Plant Gorgas BALF is located east-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.

3.1 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. Near the landfill, the land surface generally 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 the 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.

3.2 SITE GEOLOGY AND HYDROGEOLOGY

Plant Gorgas lies in the Warrior Basin physiographic region (Sapp and Emplainscourt, 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. 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 BALF 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 onsite investigations indicate 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 BALF, subsurface geology is 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'**, illustrate 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 system 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).

3.2.1 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 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 NCRDS 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 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 NCRDS.

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.

Furthermore, the process of strip mining and backfilling these materials can increase the availability of trace metals to groundwater. These mining processes and practices lead to the physical weakening and enhanced weathering of rock which, along with changed hydrodynamics, can lead to elevated and highly variable concentrations across a historic mine site.

3.2.2 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, 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).

3.2.3 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. Semi-annual sampling event groundwater elevations are discussed in Section 4.0.

3.3 GROUNDWATER MONITORING SYSTEM

Pursuant to 40 CFR § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Gorgas has installed a groundwater monitoring network to evaluate groundwater quality within the uppermost aquifer. The certified groundwater monitoring system for the Plant Gorgas BALF is designed to monitor groundwater flow passing the waste boundary of the CCR unit. Wells were sited 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.

3.3.1 Monitoring Wells

Well locations at the site are designated as upgradient, downgradient, piezometer (water-level only), vertical delineation, and horizontal delineation. The following subsections provide a summary of well designations and, if applicable, changes or modifications to the well network or designations. As described

in the site Groundwater Monitoring Plan, modifications to the well network or designation must first be approved by ADEM.

On April 13, 2023, the ground surface and top of casing elevations for all onsite wells were resurveyed and certified by a licensed Professional Land Surveyor. The location and designation of site wells are presented in **Figure 5, Monitoring Well Location Map. Table 1a, Compliance Well Network Details,** and **Table 1b, Delineation Well Network Details,** summarize the monitoring well construction details, surveyed elevations, and design purpose for the Plant Gorgas BALF.

3.3.1.1 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 BALF. 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, and generally towards the Mulberry Fork of the Black Warrior River. Upgradient wells are located north of the BALF as determined by water level monitoring and potentiometric surface maps constructed for the site.

3.3.1.2 Downgradient Wells

Monitoring well locations MW-7, MW-8, MW-10, MW-11, and MW-12 serve as downgradient locations for the BALF. Downgradient locations are located lateral to and south of the BALF as determined by water level monitoring and potentiometric surface maps.

3.3.1.3 Piezometers

One monitoring well, MW-9R, is located immediately north of the BALF and is currently designated as a water level-only piezometer. This well requires additional assessment for inclusion in the facility's groundwater monitoring network. The location of piezometer MW-9R relative to the BALF is depicted on **Figure 5. Table 1a and Table 1b** summarize the monitoring well construction details, surveyed elevations, and design purpose for the Plant Gorgas BALF.

3.3.1.4 Delineation Wells

Pursuant to 40 CFR § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g), and AO 18-096-GW, an additional monitoring well was installed to characterize the vertical extent of GWPS exceedances identified during assessment monitoring. One vertical delineation well (MW-12V) was installed adjacent to MW-12 to aid in defining the vertical extent of groundwater impacts. A second more shallow vertical delineation well, MW-12SV, targeting perched water above the MW-12 well screen interval, could not be installed due to an unsaturated overburden zone that continued to the top of the bedrock.

3.3.1.5 Monitoring Well Replacement and Abandonment

Monitoring well replacement or abandonment activities were not performed during the first or second semi-annual period of 2023.

3.4 GROUNDWATER MONITORING HISTORY

In accordance with 40 CFR § 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 groundwater monitoring was performed at the Gorgas BALF from April 2016 through October 2017. Groundwater sampling for the first detection monitoring event after the background period was performed in 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.

Statistical evaluations of 2018 assessment monitoring data identified SSIs of Appendix III constituents. An SSL of an Appendix IV constituent (arsenic) was identified above the GWPS in one well. An alternate source demonstration (ASD) was prepared that demonstrated the SSL was not caused by a release from the BALF. While ADEM review of the ASD was pending, the Site entered Assessment of Corrective Measures. Pursuant to 40 CFR § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO No. 18-096-GW, an additional monitoring well (**Table 1b, Figure 5**) was installed to characterize the vertical extent of potential GWPS exceedances. Existing well locations monitoring both the Gorgas Gypsum Landfill and downgradient of the exceedance location provide sufficient coverage for horizontal delineation. The vertical

delineation well installed at the Site is routinely and concurrently sampled with the compliance monitoring well network.

3.4.1 Available Monitoring Data

Laboratory analytical data are available for the groundwater monitoring history outlined in **Section 3.4**. Tabulated results for Appendix III and Appendix IV constituents by monitoring well are shown in **Appendix A, Historical Analytical Data**.

3.4.2 Historical Groundwater Flow

Historical groundwater elevations and potentiometric surface maps show groundwater flow patterns are consistent across monitoring events as described in **Section 3.2.3**. Tables summarizing groundwater elevations from all groundwater monitoring events are included in **Appendix B, Historical Groundwater Elevations Summary**.

3.4.3 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 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.

3.5 GROUNDWATER SAMPLING AND ANALYSIS

Site compliance wells are sampled semi-annually in: (1) late winter to mid-spring and (2) early to late fall. The spacing between sampling events is sufficient to ensure independent groundwater samples and a general representation of the different climatic or meteorological seasons that create a degree of natural variability in groundwater quality.

During routine semi-annual monitoring events, all compliance wells are sampled and analyzed for Appendix III and Appendix IV constituents. The following subsections summarize the sequential steps and

process for the sampling, handling and transport, and analysis of compliance-related groundwater samples at the Site.

3.5.1 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 40 CFR § 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 10 NTU.
- Temperature and ORP – record only, no stabilization criteria.

During purging and sampling, an in situ Aqua Troll instrument was used to monitor and record field parameters. All downhole groundwater monitoring equipment was calibrated prior to sample collection per the manufacturer's specifications outlined in the Alabama Power Environmental Affairs (EA) Water and Field Group (WFG) Technical Standard Operating Procedure, dated December 14, 2021.

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 C, Laboratory and Field Records**.

3.5.2 Sample Preservation and Handling

Groundwater samples were collected in 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.

3.5.3 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 in **Appendix C**.

3.5.4 Laboratory Analysis

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama or Pace Analytical Services, LLC (Pace) in Greensburg, Pennsylvania. Both APCEL and Pace are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed. **Table 2, Parameters and Reporting Limits**, lists assessment monitoring constituents analyzed from Site groundwater. Groundwater data and COC records for the monitoring events are presented in **Appendix C**.

3.5.5 Monitoring Period Sampling Events

As required by 40 CFR § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the annual monitoring period. The first and second semi-annual assessment monitoring sampling events took place between February 20, 2023 and February 22, 2023 and August 15 through August 22, 2023, respectively.

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during the assessment monitoring events. All groundwater sampling activities were conducted by APC Field and Water Services. Pace Analytical Services performed the laboratory analyses of Radium-226 and Radium-228 (reported combined). APCEL performed the remaining Appendix III and Appendix IV analyses. Analytical data from the groundwater monitoring events is included as **Appendix C**, in accordance with the requirements of 40 CFR § 257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

4.0 GROUNDWATER ELEVATIONS AND FLOW

During the first semi-annual sampling event, groundwater elevations ranged from 305.12 to 419.16 feet NAVD88 (feet above reference 1988 North American Datum) in BALF monitoring wells. **Figure 6A, Potentiometric Surface Contour Map (February 20, 2023)**, depicts groundwater elevations and inferred groundwater flow. Based on our review of the measured elevations, select monitoring wells in the area immediately surrounding the BALF were resurveyed in October of 2023. The potentiometric surface map for the first semi-annual event conducted on February 20, 2023 (**Figure 6A**) was revised to include the most recent survey data. During the second semi-annual sampling event, groundwater elevations ranged from 301.49 to 417.63 feet NAVD88 (feet above reference 1988 North American Datum) in BALF monitoring wells. **Figure 6B, Potentiometric Surface Contour Map (August 15, 2023)**, depicts groundwater elevations and inferred groundwater flow.

As shown on **Figures 6A and 6B**, the general direction of lateral groundwater flow is south to southeast, consistent with historic observations. As indicated by groundwater elevations from paired wells MW-12 and MW-12V, an upward vertical gradient appears to exist between shallow and deeper flow zones. This indicates (1) both vertically confining conditions exist and (2) deeper, older groundwater is upward flowing. Recent groundwater elevation data collected from the first and second 2023 semi-annual sampling events have been tabulated and included in **Table 3, Groundwater Elevations Summary**. All available groundwater elevation data recorded since 2015 have been tabulated and included in **Appendix B**.

4.1 GROUNDWATER FLOW VELOCITY CALCULATIONS

Because the geology at the BALF 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 feet/day. An estimated effective porosity of 0.15 is used in the flow rate calculations. The hydraulic gradient was calculated between the selected well pairs is shown in **Appendix D, Horizontal Groundwater Flow Velocity Calculations.**

An estimate of horizontal 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

Appendix D presents the estimated horizontal flow velocity calculated using groundwater elevation data from the first and second semi-annual sampling events in 2023. 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.

5.0 EVALUATION OF GROUNDWATER QUALITY DATA

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at an interval of one sample per group of 10 well samples. These QA/QC samples include well duplicates, equipment blanks, and field blanks. Routine analyses of field QA/QC samples are a method for evaluating whether artificial bias could have been introduced into lab results by way of sampling activities or equipment.

5.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

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 RPD is 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 4, Relative Percent Difference (RPD) Calculations**, provides the RPDs for sample and sample duplicates during the first and second semi-annual monitoring events of 2023. All RPDs were below 20% for the sampling event. No Appendix III or Appendix IV constituents were detected in any of the collected field or equipment blanks during the second semi-annual sampling event.

5.2 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).

5.2.1 Appendix III Evaluation

Intrawell prediction limits, combined with a 1-of-2 verification resample plan, are used to evaluate calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS). Interwell prediction limits, combined with a 1-of-2 verification resample plan, are used for boron and pH to determine whether there has been an 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 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.

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.

5.2.2 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 (UTL) 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. GWPS for Appendix IV constituents are updated on a biennial schedule. This schedule was initiated in 2019 with updates generally occurring after the second semi-annual sampling event of each biennial year. Data from upgradient wells collected between updates may still be used to support ASDs, if merited.

5.3 STATISTICAL EXCEEDANCES

Analytical data from the first and second semi-annual monitoring events in 2023 were statistically analyzed in accordance with the Professional Engineer (PE)-certified Statistical Analysis Plan (October 2017) and revised in the August 2020 data screening evaluation performed by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents had returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

5.3.1 Appendix III Constituents

Based on review of the Appendix III statistical analysis presented in **Appendix E, Statistical Analysis**, Appendix III constituents have not returned to background levels.

5.3.2 Appendix IV Constituents

Table 5, 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 E**.

Statistical analysis of Appendix IV data identified the following SSL over GWPS at the listed well for the first and second 2023 semi-annual groundwater monitoring events:

- MW-12: Arsenic.

Table 6, First Semi-Annual Monitoring Event Analytical Results Summary, provides a summary of all constituent concentrations for the first semi-annual monitoring event of 2023. **Table 7, Second Semi-Annual Monitoring Event Analytical Results Summary**, provides a summary of all constituent concentrations for the second semi-annual monitoring event of 2023.

Statistical analyses are not conducted on Site delineation wells. A review of analytical data derived from delineation well MW-12V revealed no exceedances of the GWPS during either the first or second 2023 semi-annual sampling events. Details regarding the installation and sampling of MW-12V, and future proposed actions were submitted to ADEM in a delineation report on May 13, 2019.

6.0 ALTERNATE SOURCE DEMONSTRATION

40 CFR §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 caused an SSL and that the SSL was the result of an alternate source, or that the SSL resulted from errors in sampling, analysis or statistical evaluation, or natural variation in groundwater quality. An ASD was prepared for arsenic and submitted to ADEM in June 2019.

Multiple lines of evidence support the conclusion that the SSL of arsenic in well MW-12 is naturally occurring and not the result of the BALF. The ASD satisfies Federal rules and precludes the need to complete an ACM under 40 CFR § 257.96.

Four key lines of evidence provide overwhelming support for an alternate source:

1. Documented data on naturally occurring arsenic in subsurface materials at the Site (further supported by numerous publications on elevated trace metals in the Pottsville formation).
2. Relative absence of arsenic occurring in BALF pore-water samples (lack of CCR source).
3. Boron isotopic analyses conclusively demonstrating that groundwater sampled in compliance well MW-12 does not have a CCR signature.
4. Spatial Pattern – wells adjacent to and downgradient of MW-12, as well as the paired vertical delineation well (MW-12V), exhibit non-detected or low-level concentrations of arsenic and therefore, do not provide any indications of an arsenic plume.

However, ADEM has yet to approve the ASD for arsenic, 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 40 CFR § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and AO No. 18-096-GW to include the BALF in February 2020.

7.0 GROUNDWATER ASSESSMENT AND CORRECTIVE ACTION

As required by Part E of the Order (AO 18-096 GW) and correspondence from ADEM (March 2021), this report provides an update of groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018). The primary purpose of this plan was to identify the horizontal and vertical extent of groundwater impacts defined by EPA Appendix IV groundwater protection standards.

A comprehensive groundwater delineation report summarizing findings was submitted to ADEM in September 2020. The conclusions and results presented indicate that groundwater delineation has been completed to a sufficient degree to define the spatial extent of groundwater impacts and to inform a groundwater remedy selection plan.

7.1 CHRONOLOGY OF DELINEATION ACTIVITIES

Beginning in 2019, Semi-Annual Progress Reports have routinely been provided to ADEM in March and September. APC requested approval to combine information typically provided in the Semi-Annual Progress Reports with Semi-Annual Groundwater Monitoring and Corrective Action Reports on March 16, 2021. APC will now provide ADEM with a discussion of delineation results and activities in each semi-annual groundwater monitoring and corrective action report until released in writing.

7.1.1 Delineation Wells

Part B of the Order requires the installation of additional wells as necessary to define the extent of groundwater impacts. This section documents the delineation activities completed at the Plant Gorgas BALF since submittal of the Facility Plan for Groundwater Investigation on November 13, 2018.

- Installed one vertical delineation well on January 9, 2019. A second shallow vertical delineation boring (MW-12SV) was attempted, but saturated conditions were not encountered during borehole advancement. Therefore, a shallow vertical delineation well was not installed.
- Developed vertical delineation well MW-12V in March 2019.
- Collected groundwater samples from MW-12V on March 12, 2019.
- Submitted a Groundwater Investigation Report to ADEM on May 13, 2019. This report recommended no further delineation and data gathered indicated strong potential for an alternate source.

- Submitted an Alternate Source Demonstration for arsenic over the GWPS at well MW-12 to ADEM in July 2019.
- On December 30, 2019, provided ADEM with a response to comments received from ADEM on November 14, 2019.
- Submitted a revised Assessment of Corrective Measures that included the BALF to ADEM in February 2020.
- Submitted a Semi-Annual Progress and Groundwater Delineation Report documenting groundwater investigation activities on September 30, 2020.
- Responded to the February 3, 2021, ADEM Semi-Annual Progress and Groundwater Delineation Reports comments letter on March 5, 2021.

7.1.2 Nature and Quantity of Release

Part B of the Order requires collecting data on the nature and estimated quantity of material released. To collect the required data, sampling of bottom ash pore-water at two locations was conducted. One of the locations was dry, indicating that portions of the BALF are unsaturated or contain very little water. Bottom ash pore-water from the other location was sampled for all EPA Appendix III and IV constituents. Groundwater quality data was compared to source water and leachate composition to evaluate the degree to which the source area has contributed constituents to groundwater. The ASD submitted to ADEM in July 2019 documented natural arsenic in geologic materials at the site and a relative lack of arsenic in pore-water collected from the BALF.

7.1.3 Discussion of Delineation Results

Groundwater Monitoring and Corrective Action reports for the Plant Gorgas BALF identified arsenic in MW-12 as an SSL during the first and second 2023 semi-annual groundwater monitoring events. An isoconcentration map for the first semi-annual sampling event is presented in **Figure 7A, Arsenic Concentrations Map (February 2023)**. An isoconcentration map for arsenic from the second semi-annual sampling event is presented in **Figure 7B, Arsenic Concentrations Map (August 2023)**.

Isoconcentration lines shown on **Figure 7** are data-driven contours derived from the spatial distribution of constituent concentrations in the well network. When spatially distributed objects are correlated (i.e., objects close together with similar characteristics are compared), mathematical interpolation can be used to predict quantities between the objects. In this case, the Geostatistical Analyst tool in ArcGIS was used to

interpolate constituent concentrations between well locations within the area where concentrations were above laboratory method detection limits.

Where concentrations decrease below the GWPS between well pairs, the impact on groundwater is obtained from the interpolated data set. This takes into account the spatial pattern of decreasing concentrations observed in nearby wells.

There are eight compliance monitoring wells associated with the downgradient Gypsum Landfill between MW-12 and the property boundary. These compliance wells are not associated with the BALF, but they do act as de facto horizontal delineation wells because they are screened similarly to compliance wells at the BALF. These wells serve as the required horizontal delineation wells. One vertical delineation well, MW-12V, has been installed at the site to assess potential impacts, as shown on **Figure 5** and **Table 1b**.

At the site, arsenic has exceeded the GWPS at compliance well MW-12. **Figures 7A and 7B** show the extent of arsenic concentrations over the 0.01 mg/L GWPS. Arsenic concentrations appear concentrated in the immediate vicinity of MW-12, and a lack of exceedances in vertical delineation well MW-12V indicates impacts are limited to the uppermost aquifer. See **Section 6.0** for discussion of the ASD submitted to ADEM in July 2019, presenting a strong case for an alternate source.

7.2 STATUS OF DELINEATION

Groundwater delineation activities at the site were completed in 2019. As shown on **Figures 7A and 7B**, the vertical and horizontal extent of arsenic has been delineated and is characterized by an isolated pocket of elevated arsenic likely limited to the well screen interval of MW-12. The previously submitted ASD provides conclusive evidence that the BALF is not the source of elevated arsenic concentrations in this well.

7.3 GROUNDWATER REMEDY AND CORRECTIVE ACTION

An Assessment of Corrective Measures (ACM) for groundwater impacts was conducted and formally submitted to ADEM in June 2019. Additional data analyses and investigations were conducted to develop the detailed Groundwater Remedy Selection Report, submitted in December 2021, and the Corrective Action Groundwater Monitoring Program document, submitted in March 2022.

Submittal	Submittal Date	Purpose
Assessment of Corrective Measures	06/2019	Initial evaluation of the feasibility, performance, and implementation of known and emerging groundwater remediation technologies based on site conditions and factors.
Groundwater Remedy Selection Report	12/2021	List and detailed description of groundwater remedies selected for implementation at the site.
Corrective Action Groundwater Monitoring Program	03/2022	Plan document describing process and program for implementing and monitoring groundwater remedies at the site.

7.3.1 Groundwater Remedy Selection

The Groundwater Remedy Selection Report describes these selected remedies for groundwater corrective actions at the site:

- Source control (complete), including dewatering, consolidation, and capping of the CCR unit.
- Monitored natural attenuation (MNA) over the entire site.

Source contributions to groundwater were reduced by closure of the Site, which included dewatering, consolidation, and capping. MNA was selected based on evidence gathered during initial investigations which indicates that these processes are already occurring.

7.3.2 Corrective Action – Groundwater Monitoring Program

The Corrective Action Groundwater Monitoring Program describes early plans for implementation and monitoring of groundwater remedies described in the Groundwater Remedy Selection Report.

Construction activities associated with closure were substantially completed in November 2020. Site closure included removal of free water, dewatering the CCR material, grading the Site to promote drainage, and installing a final low-permeability cover system consisting of geomembrane and a vegetative cover.

In addition to continued rule-required assessment monitoring, the objectives of this Monitoring Program are:

- Demonstrate that horizontal and vertical delineation remain complete.
- Demonstrate that natural attenuation is occurring.

- Evaluate groundwater remedy performance against groundwater protection standards.
- Evaluate groundwater constituent of interest concentrations with respect to standards protective of potential human and ecological receptors.
- Evaluate system performance against adaptive triggers to determine if adaptation or change to the remedy system is necessary.

Selected Remedy	Implementation Tasks
Monitored Natural Attenuation	<ol style="list-style-type: none">1. Implementation of expanded MNA sampling parameters.2. Further assessment of MNA monitoring network.

Implementation of Monitored Natural Attenuation

MNA sampling parameters were added to the sampling plans and analyzed in the laboratory during the February and August 2023 sampling events (**Table 6** and **Table 7**). In addition to field parameters, the parameters in **Appendix III** and **Appendix IV** are used to study the processes that govern or facilitate MNA, as well as changes in geochemical conditions. Parameters will be included in the site geochemical model.

8.0 SUMMARY AND CONCLUSIONS

Based on the results of statistical analysis presented in this report, the BALF is currently in corrective action. An ASD was prepared to address historical arsenic GWPS exceedances at compliance well MW-12 in June 2019. This ASD was prepared in accordance with 40 CFR § 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 not yet approved the ASD for arsenic, so APC has amended the current Plant Gorgas ACM to include the BALF. However, the pending ASD review decision by ADEM will affect future actions for the site. If approved, the site will return to assessment monitoring.

The certified compliance monitoring well network is sampled on a semi-annual basis. The groundwater samples were analyzed for all Appendix III and IV parameters. Statistical evaluations of the February and August 2023 assessment monitoring data identified one Appendix IV constituent (arsenic) as statistically exceeding its respective GWPS. No new or additional SSLs beyond those reported in the 2018 Groundwater Monitoring and Corrective Action Report were identified during these first or second semi-annual sampling events.

In accordance with 40 CFR § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), APC will continue semi-annual groundwater monitoring. The following future actions will be taken or are recommended for the site:

- Evaluate recently collected MNA parameter data and ongoing compliance monitoring to determine the effectiveness of the selected remedies in meeting long-term groundwater protection standards at the site.
- Conduct the first semi-annual assessment monitoring event in 2024 and submit the semi-annual groundwater monitoring and corrective action report summarizing the findings to ADEM by July 31, 2024.

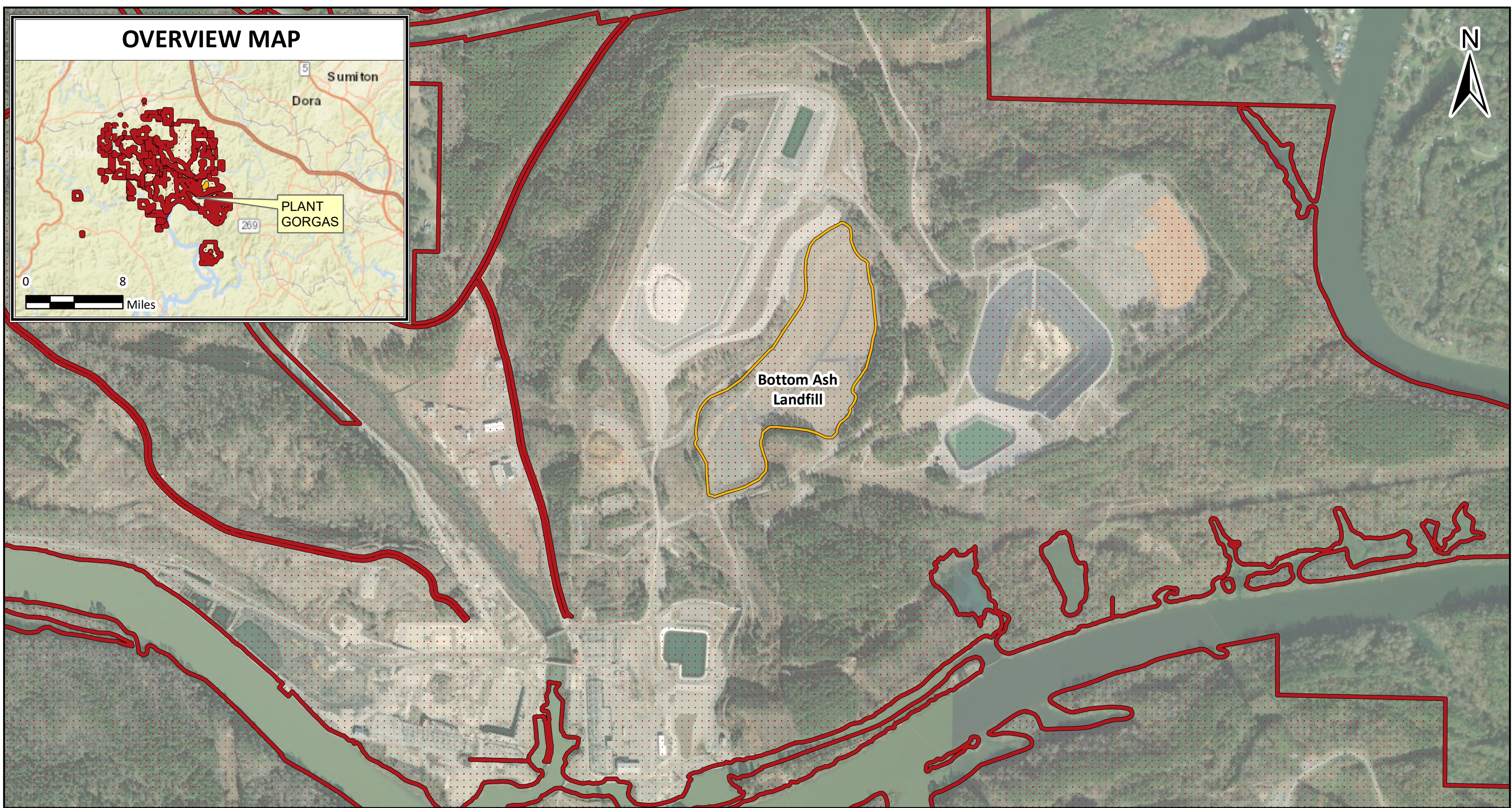
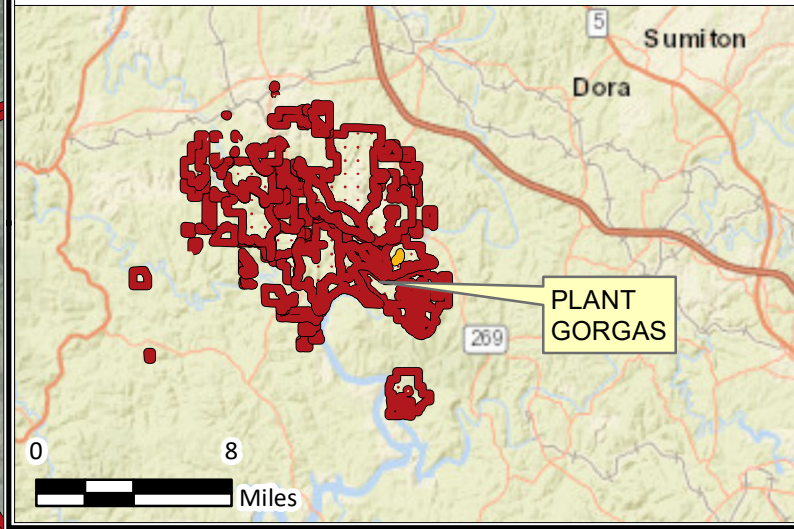
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Figures

OVERVIEW MAP



LEGEND

-  Bottom Ash Landfill Boundary (Approximate)
-  Property Boundary (Approximate)



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map:Maxar Vivid Standard, 1/07/2023 (west);
 Maxar Vivid Standard, 11/14/2020 (east)

SCALE 1:9,000

DATE 10/18/2023

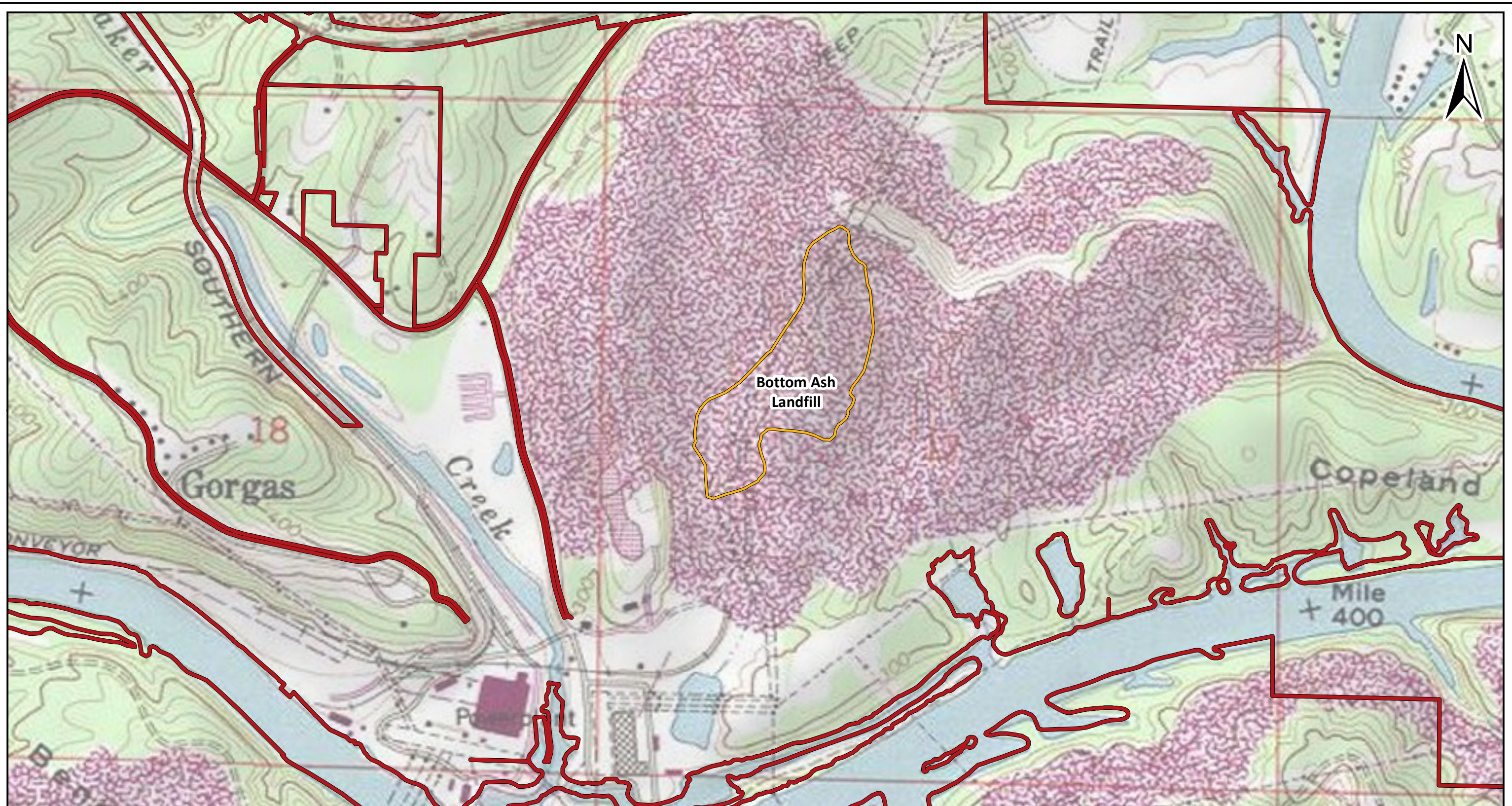
DRAWN BY KAR

CHECKED BY AWH

DRAWING TITLE:
SITE LOCATION MAP
PLANT GORGAS BOTTOM ASH LANDFILL

FIGURE NO.
FIGURE 1





LEGEND

- Bottom Ash Landfill Boundary (Approximate)
- Property Boundary (Approximate)



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Goodsprings, Alabama 1971 (Photorevised 1983) US
 Geological Survey 7.5' Topographic Quadrangle.

SCALE 1:9,000

DATE 10/18/2023

DRAWN BY KAR

CHECKED BY AWH

DRAWING TITLE:
SITE TOPOGRAPHIC MAP
PLANT GORGAS BOTTOM ASH LANDFILL

FIGURE NO.
FIGURE 2





LEGEND

- Bottom Ash Landfill Boundary (Approximate)
- Property Boundary (Approximate)

Geologic Units

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



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Standard, 1/07/2023 (west),
 Maxar Vivid Standard, 11/14/2020 (east).

SCALE 1:9,000

DATE 11/09/2023

DRAWN BY KAR

CHECKED BY AWH

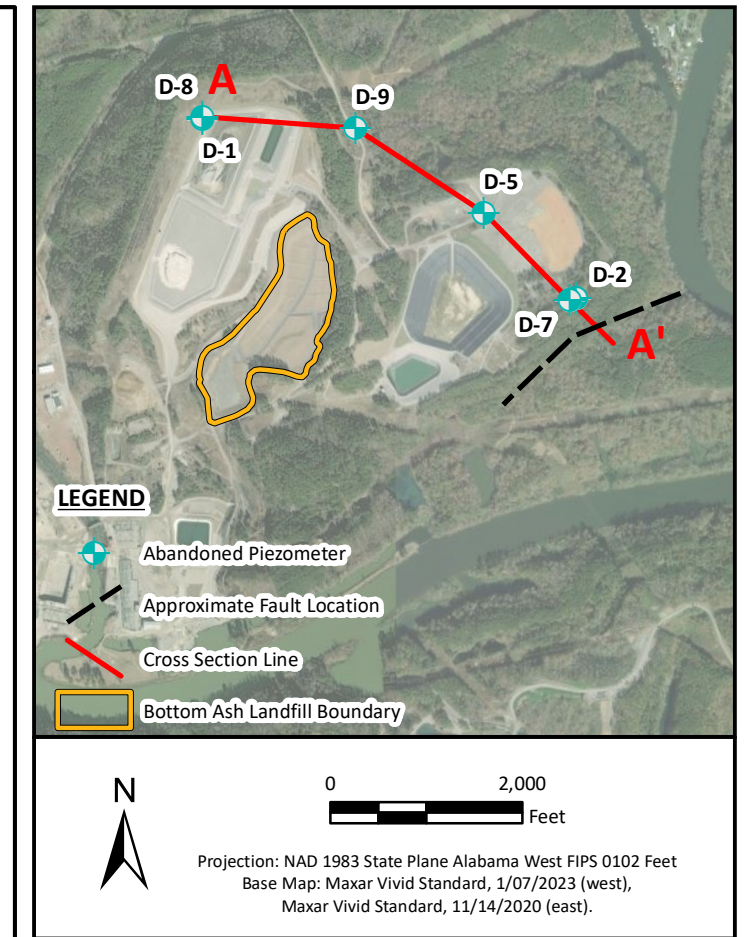
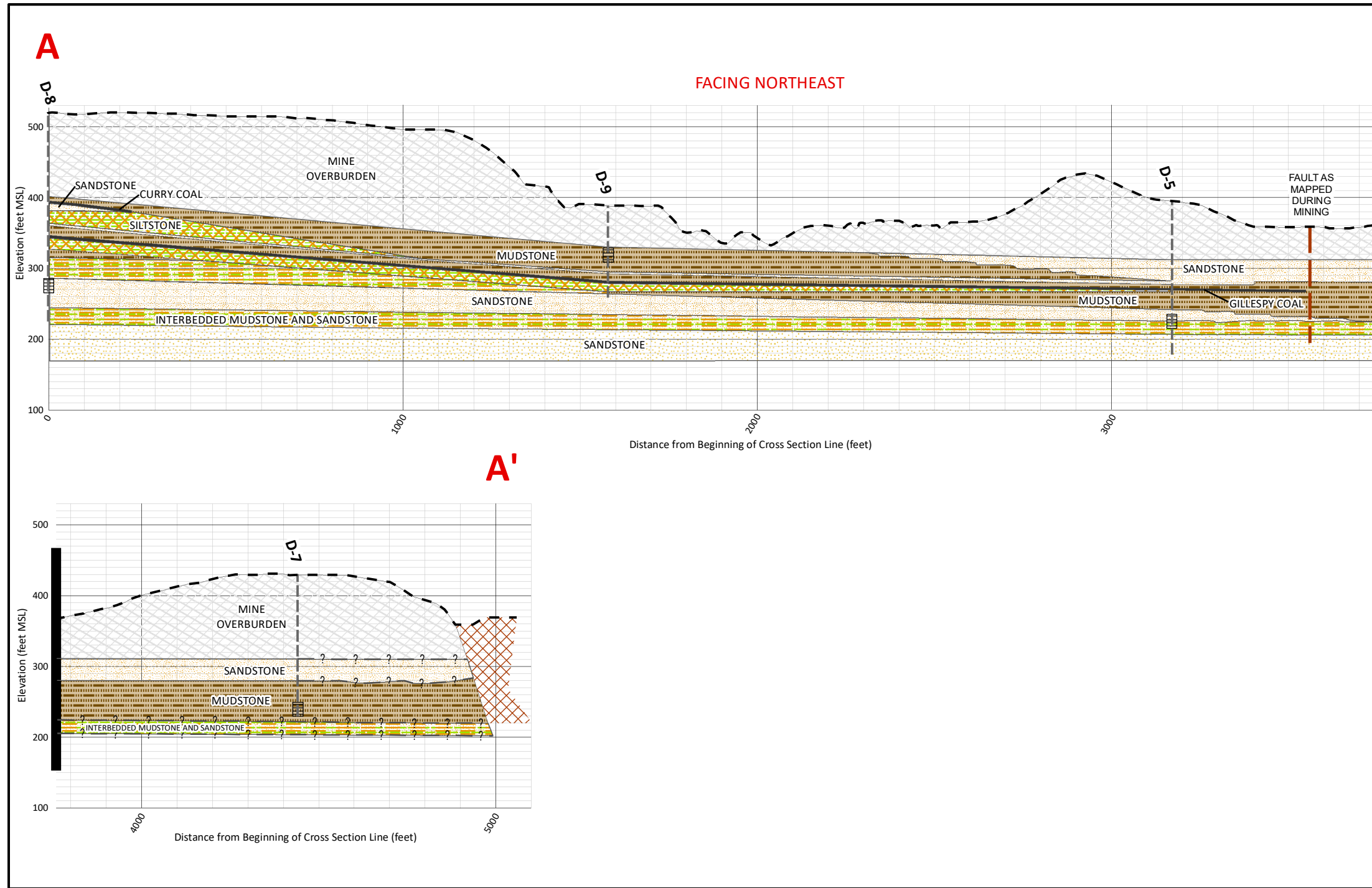
DRAWING TITLE:

**SITE GEOLOGIC MAP
 PLANT GORGAS BOTTOM ASH LANDFILL**

FIGURE NO.

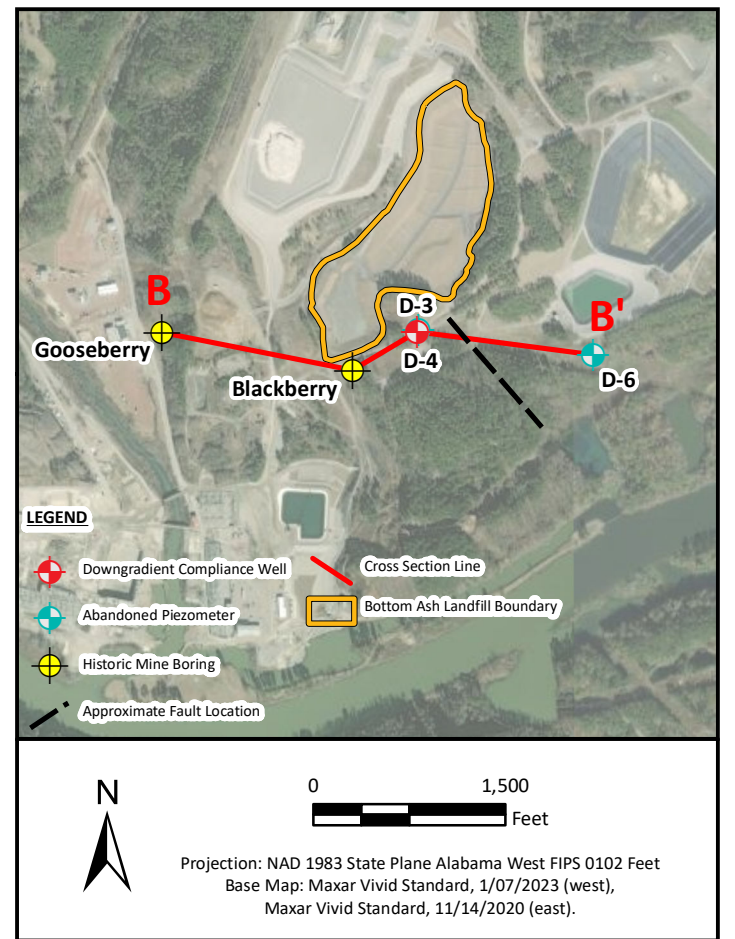
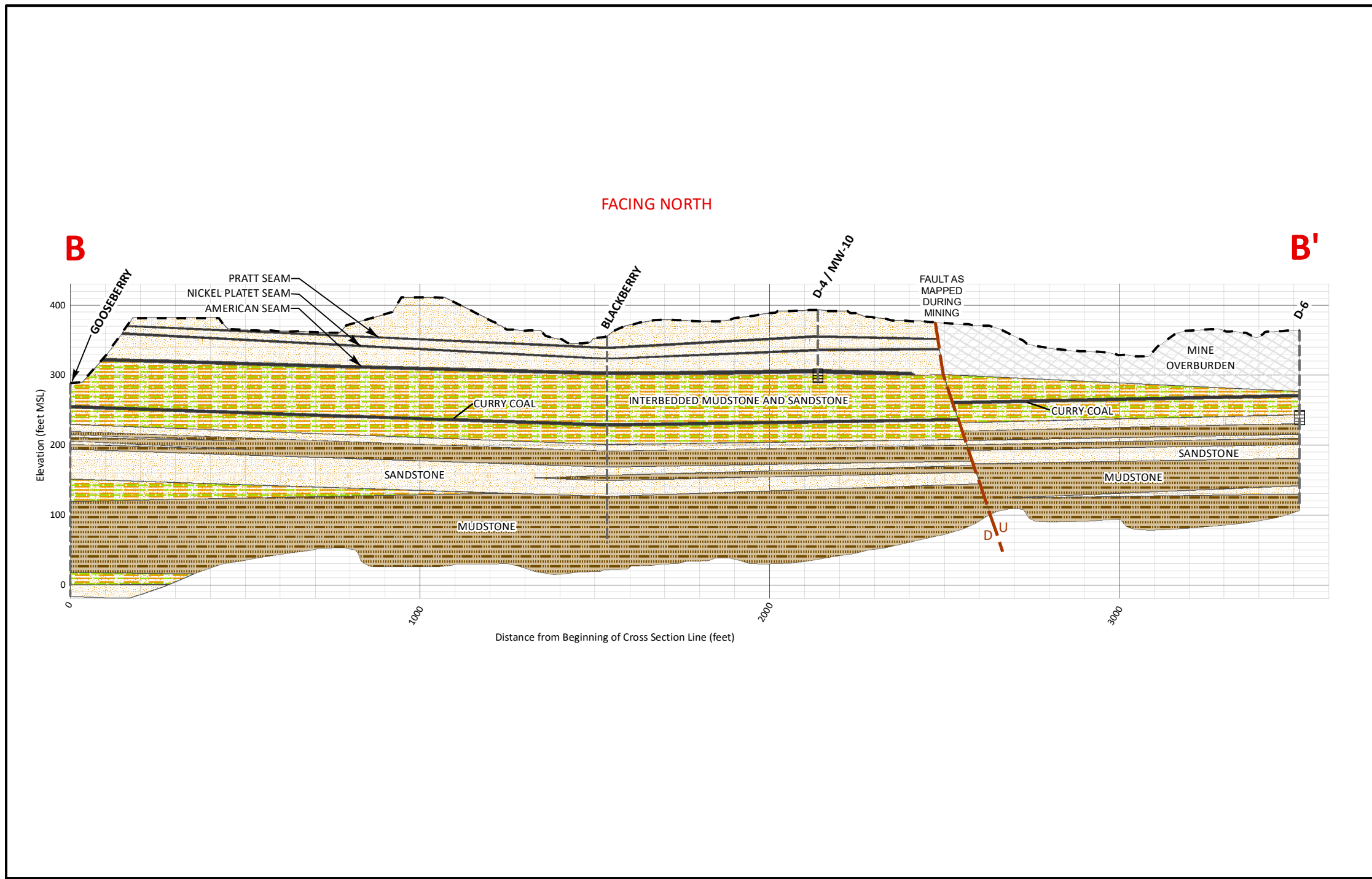
FIGURE 3





Notes: 1. Cross section digitized from 2016 Southern Company Services data.
2. Feet MSL indicates feet above mean sea level.
3. Vertical exaggeration: 2x.

LEGEND 	SCALE		DRAWING TITLE	
	AS SHOWN		GEOLOGIC CROSS SECTION A - A' PLANT GORGAS BOTTOM ASH LANDFILL	
	DATE			
	11/03/2023			
DRAWN BY		FIGURE NO		
KAR		FIGURE 4A		
CHECKED BY				
AWH				








Notes: 1. Cross section digitized from 2016 Southern Company Services data.
 2. Feet MSL indicates feet above mean sea level.
 3. Vertical exaggeration: 2x.

LEGEND 	Geologic Units 		SCALE AS SHOWN	DRAWING TITLE GEOLOGIC CROSS SECTION B - B' PLANT GORGAS BOTTOM ASH LANDFILL	
			DATE 11/15/2023		
			DRAWN BY KAR	FIGURE NO FIGURE 4B	
			CHECKED BY AWH		



LEGEND

-  Downgradient Compliance Well
-  Upgradient Compliance Well
-  Vertical Delineation Well
-  Piezometer
-  Bottom Ash Landfill Boundary (Approximate)



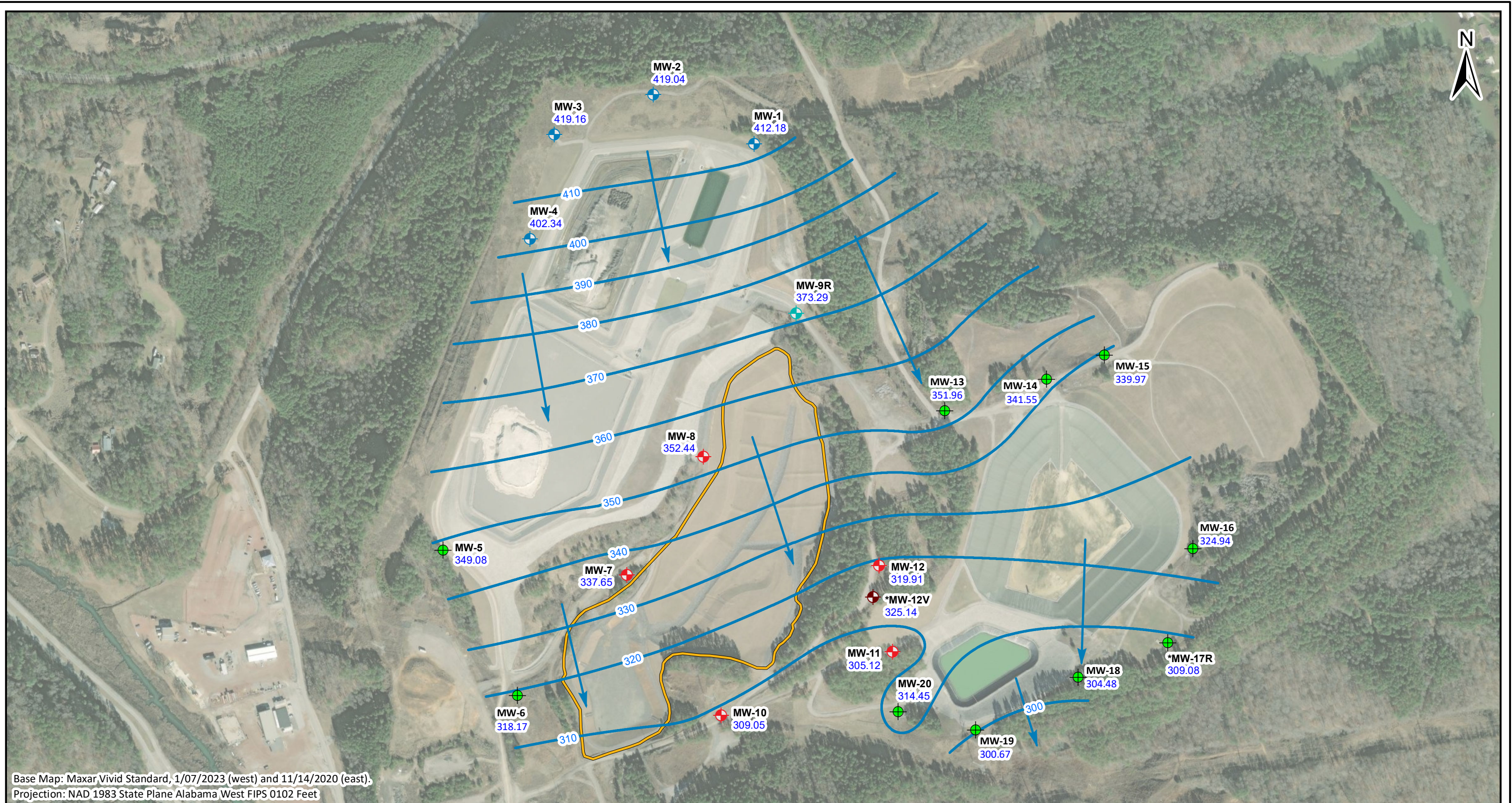
Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Standard, 1/07/2023 (west),
 Maxar Vivid Standard, 11/14/2020 (east).

SCALE	1:6,000
DATE	11/09/2023
DRAWN BY	KAR
CHECKED BY	AWH

DRAWING TITLE:
**MONITORING WELL LOCATION MAP
 PLANT GORGAS BOTTOM ASH LANDFILL**

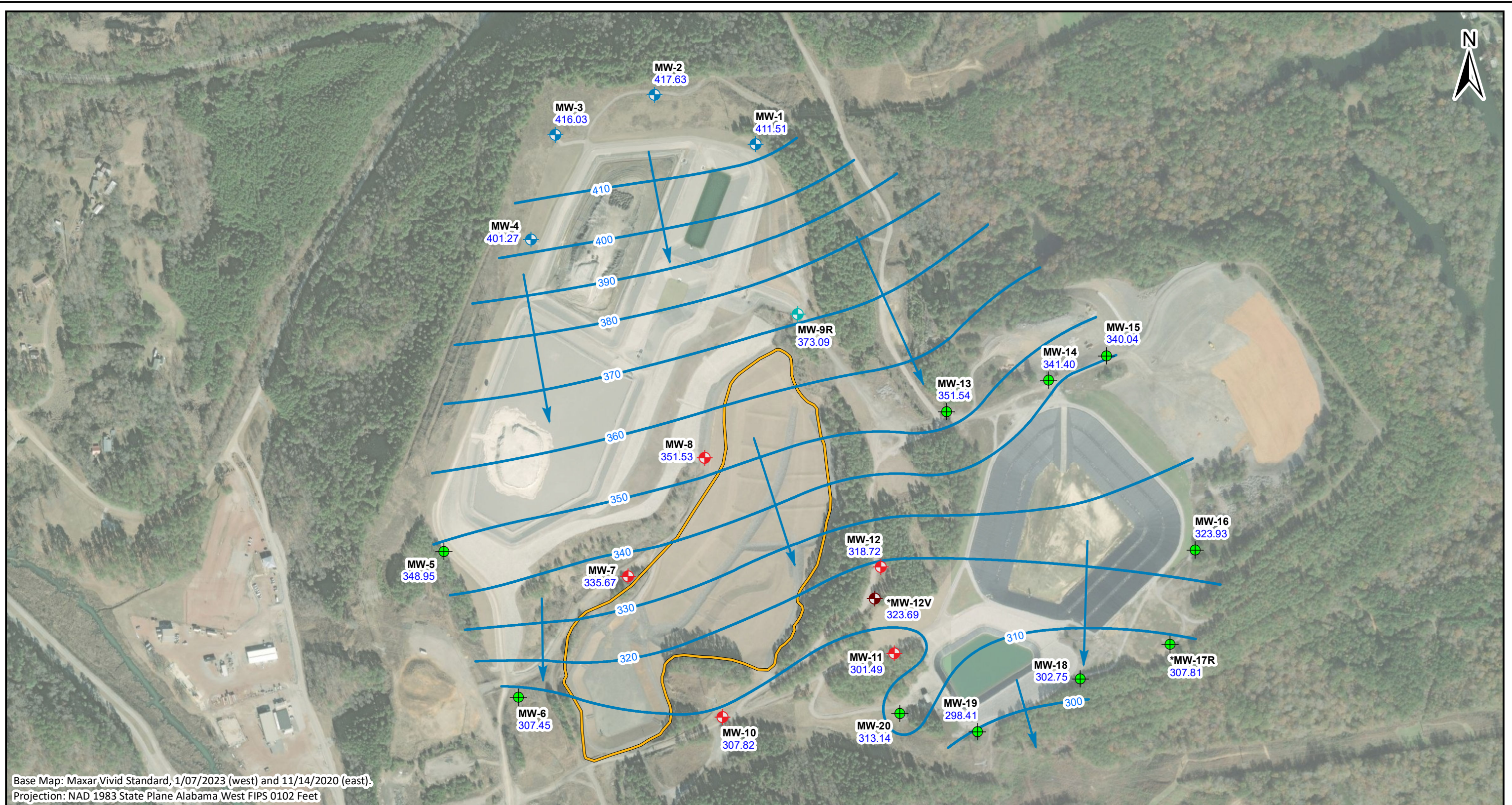
FIGURE NO.
FIGURE 5





LEGEND Downgradient Monitoring Well Upgradient Monitoring Well Vertical Delineation Well Monitoring Well Piezometer Potentiometric Surface Contour (ft NAVD88) Approximate Groundwater Flow Direction Bottom Ash Landfill Boundary (Approximate) MW-1 Well ID 412.18 Groundwater Elevation	0 500 Feet	SCALE	1:6,000	DRAWING TITLE: POTENTIOMETRIC SURFACE CONTOUR MAP FEBRUARY 20, 2023 PLANT GORGAS BOTTOM ASH LANDFILL
		DATE	10/18/2023	
		DRAWN BY	KAR	FIGURE NO. FIGURE 6A
		CHECKED BY	ACP	

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.
 4. Monitoring wells MW-6, MW-13, MW-14, MW-15, MW-16, MW-18, and MW-19 were re-surveyed following the first semi-annual event, so groundwater elevations in this figure differ from elevations in that report.



Base Map: Maxar Vivid Standard, 1/07/2023 (west) and 11/14/2020 (east).
 Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet

LEGEND

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Vertical Delineation Well
- Monitoring Well
- Piezometer
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Bottom Ash Landfill Boundary (Approximate)
- MW-1** Well ID
- 411.51** Groundwater Elevation



NOTES:

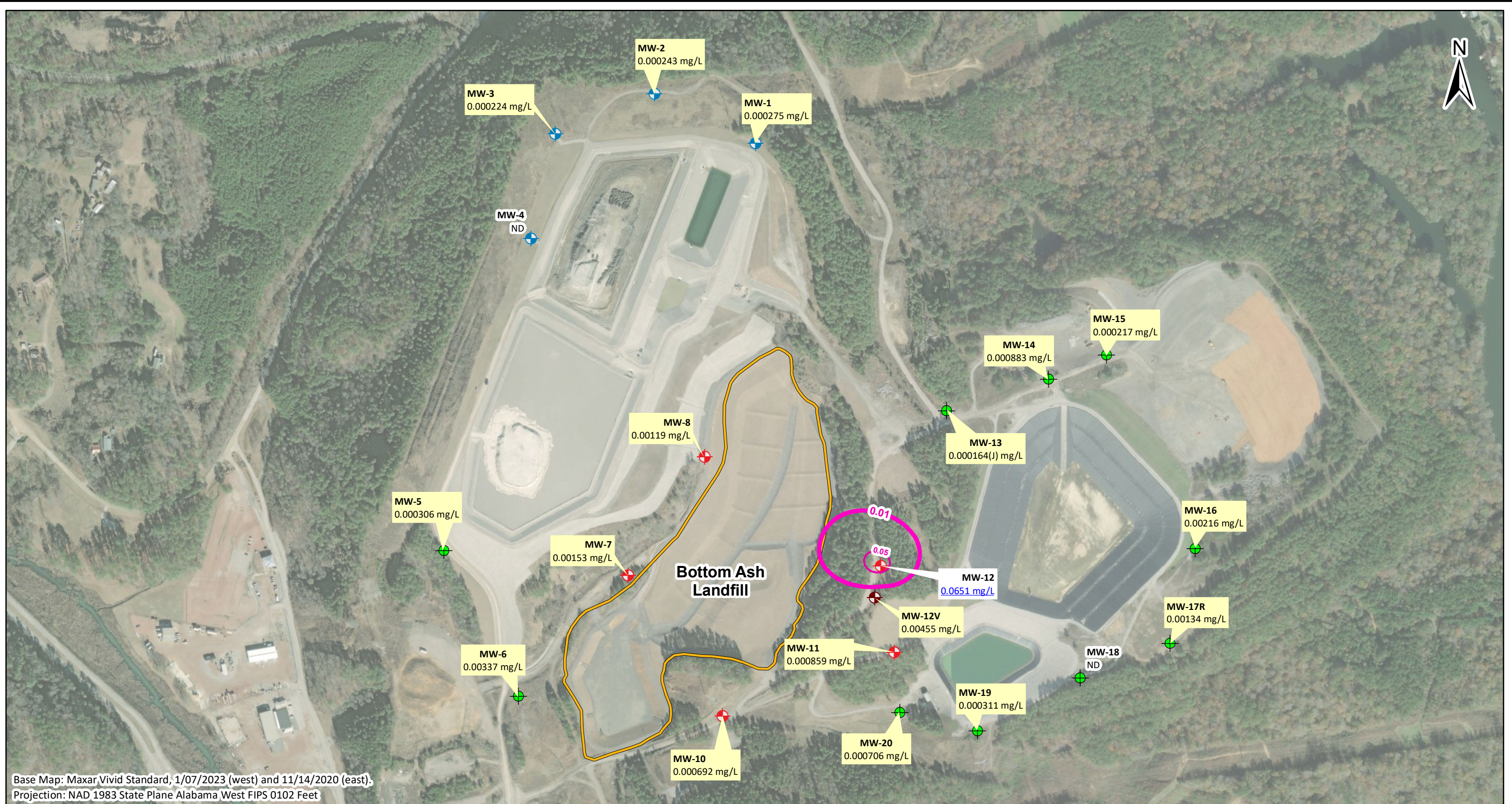
1. NAVD88 indicates North American Vertical Datum of 1988.
2. MW-10, screened across American Coal Seam, was factored into contouring.
3. *MW-12V and MW-17R are screened entirely in rock and were not factored into contouring.

SCALE	1:6,000
DATE	10/18/2023
DRAWN BY	KAR
CHECKED BY	AWH

DRAWING TITLE:
POTENTIOMETRIC SURFACE CONTOUR MAP
AUGUST 15, 2023
PLANT GORGAS BOTTOM ASH LANDFILL

FIGURE NO.
FIGURE 6B





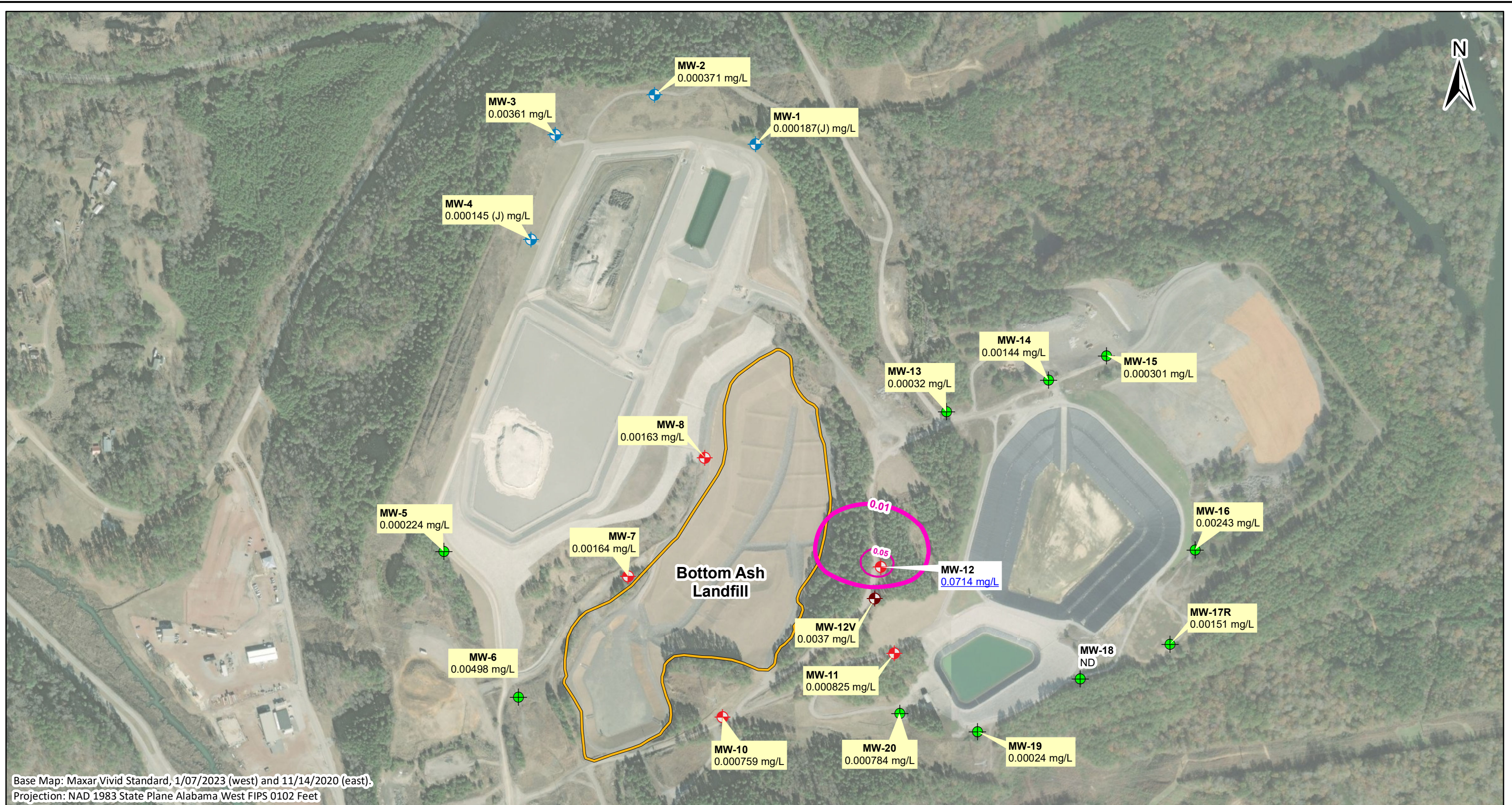
Base Map: Maxar Vivid Standard, 1/07/2023 (west) and 11/14/2020 (east).
 Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet

Arsenic GWPS Isoconcentration Contour (0.01 mg/L)	Downgradient Compliance Well
Arsenic Isoconcentration Contour (mg/L)	Upgradient Compliance Well
Bottom Ash Landfill Boundary	Vertical Delineation Well
	Monitoring Well
	Piezometer



NOTES:
 1. Groundwater samples were collected between February 20 and 22, 2023.
 2. ND indicates concentration not detected above laboratory Method Detection Limit (MDL) of 0.000081 mg/L.
 3. Concentrations underlined in blue exceed the arsenic Groundwater Protection Standard of 0.01 mg/L.
 4. J value indicates estimated concentration greater than or equal to the laboratory MDL and less than the laboratory Reporting Limit (RL).
 4. Vertical delineation well MW-12V is screened across a deeper stratigraphic interval.

SCALE 1:6,000	DRAWING TITLE: ARSENIC CONCENTRATIONS MAP FEBRUARY 2023 PLANT GORGAS BOTTOM ASH LANDFILL	
DATE 10/18/2023	DRAWN BY KAR	FIGURE NO. FIGURE 7A
CHECKED BY AWH	Southern Company	



LEGEND Arsenic GWPS Isoconcentration Contour (0.01 mg/L) Arsenic Isoconcentration Contour (mg/L) Bottom Ash Landfill Boundary Downgradient Monitoring Well Upgradient Monitoring Well Vertical Delineation Well Monitoring Well	NOTES: 1. Groundwater samples were collected from August 15 to August 22, 2023. 2. ND indicates concentration not detected above laboratory Method Detection Limit (MDL) of 0.000112 mg/L. 3. Concentrations underlined in blue exceed the arsenic Groundwater Protection Standard of 0.01 mg/L. 4. J value indicates estimated concentration greater than or equal to the laboratory MDL and less than the laboratory Reporting Limit (RL). 4. Vertical delineation well MW-12V is screened across a deeper stratigraphic interval.	SCALE 1:6,000	DRAWING TITLE: ARSENIC CONCENTRATIONS MAP AUGUST 2023 PLANT GORGAS BOTTOM ASH LANDFILL
		DATE 11/14/2023	
		DRAWN BY KAR	Southern Company
		CHECKED BY ACP	

Tables



**Table 1a. - Compliance Well Network Details
Plant Gorgas Bottom Ash Landfill (BALF)**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
MW-1	Upgradient	Mine Spoil - Pottsville Fm Interface	33.6582127	-87.1908573	499.29	502.71	108.25	405.19	395.19	10	1/15/2014
MW-2	Upgradient	Mine Spoil - Pottsville Fm Interface	33.6589294	-87.1926079	499.32	502.47	94.47	418.72	408.72	10	10/23/2014
MW-3	Upgradient	Mine Spoil - Pottsville Fm Interface	33.6583541	-87.1943305	522.80	526.15	119.11	417.70	407.70	10	10/23/2014
MW-4	Upgradient	Mine Spoil - Pottsville Fm Interface	33.6568369	-87.1947598	516.82	518.30	128.84	400.52	390.52	10	2/19/2012
MW-7	Downgradient	Mine Spoil - Pottsville Fm Interface	33.6519554	-87.1930942	391.98	394.69	73.82	331.38	321.38	10	10/29/2014
MW-8	Downgradient	Mine Spoil - Pottsville Fm Interface	33.6536690	-87.1917540	413.87	415.83	72.39	354.97	344.97	10	1/16/2014
MW-9R	Piezometer	Mine Spoil - Pottsville Fm Interface	33.6557453	-87.190137	500.23	503.27	135.24	378.73	368.73	10	7/27/2017
MW-10	Downgradient	Pottsville Fm - American Coal Seam	33.6499103	-87.1914627	392.32	395.44	108.93	307.42	287.42	20	7/24/2012
MW-11	Downgradient	Mine Spoil - Pottsville Fm Interface	33.6508253	-87.1884794	403.94	407.05	135.76	282.34	272.34	10	10/30/2014
MW-12	Downgradient	Mine Spoil - Pottsville Fm Interface	33.6520778	-87.1887139	471.47	474.43	169.51	315.87	305.87	10	11/3/2014

ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) A well construction log for piezometer MW-9R could not be located.



**Table 1b. - Delineation Well Network Details
Plant Gorgas Bottom Ash Landfill (BALF)**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
MW-12V	Vertical Delineation	Pottsville Fm - Pratt Coal Group	33.6516166	-87.1888171	478.73	481.67	207.00	285.73	275.73	10	3/1/2019

ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) A well construction log for piezometer MW-9R could not be located.



Table 2. Parameters And Reporting Limits

Plant Gorgas Bottom Ash Landfill (BALF)
02/20/2023 - 08/22/2023

Appendix III Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Boron	EPA 200.7	0.1015	mg/L
Calcium	EPA 200.7	4.06-40.599998	mg/L
Chloride	SM4500Cl E	1-8	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
pH_Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	64-200	mg/L
TDS	NA	NA	mg/L
Appendix IV Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Antimony	EPA 200.8	0.001015	mg/L
Arsenic	EPA 200.8	0.000203	mg/L
Barium	EPA 200.8	0.001015	mg/L
Beryllium	EPA 200.8	0.001015	mg/L
Cadmium	EPA 200.8	0.000203	mg/L
Chromium	EPA 200.8	0.001015	mg/L
Cobalt	EPA 200.8	0.000203	mg/L
Lead	EPA 200.8	0.000203	mg/L
Lithium	EPA 200.7	0.02	mg/L
Mercury	EPA 245.1	0.0005	mg/L
Molybdenum	EPA 200.7	0.01015	mg/L
	EPA 200.8	0.000203	mg/L
Selenium	EPA 200.8	0.001015	mg/L
Thallium	EPA 200.8	0.000203	mg/L
Combined Radium 226 + 228	Total Radium Calculation	0.91-1.31	pCi/L

Notes:

1. Reporting Limit values can display range depending upon matrix interferences and dilution factors
2. pH is a field acquired parameter and does not have a laboratory method or reporting limit
3. Combined Radium 226 + 228 – product of radium-226 + radium-228; reporting limits presented are sum of radium 226, radium 228 reporting limits
4. EPA 200.7 – EPA methodology for the "Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry"
5. EPA 200.8 - EPA methodology for the "Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)"
6. SM 2320, 2540, 4500 – Standard Methods for Examination of Water and Wastewater.
7. Total Radium Calculation – Term used herein for EPA 9315 + EPA 9320
8. EPA 9315 – Used for Radium-226; SW-846: Alpha-Emitting Radium Isotopes, part of Test Methods for Evaluation Solid Waste, Physical/Chemical Methods
9. EPA 9320 – Used for Radium-228; SW-846: Alpha-Emitting Radium Isotopes, part of Test Methods for Evaluation Solid Waste, Physical/Chemical Methods



Table 3. Groundwater Elevations Summary

Plant Gorgas Bottom Ash Landfill (BALF)
02/20/2023 - 08/15/2023

Measurement Date		02/20/2023		08/15/2023	
Well	TOC Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)
MW-1	502.71	90.53	412.18	91.20	411.51
MW-2	502.47	83.43	419.04	84.84	417.63
MW-3	526.15	106.99	419.16	110.12	416.03
MW-4	518.30	115.96	402.34	117.03	401.27
MW-7	394.69	57.04	337.65	59.02	335.67
MW-8	415.83	63.39	352.44	64.30	351.53
MW-9R	503.27	129.98	373.29	130.18	373.09
MW-10	395.44	86.39	309.05	87.62	307.82
MW-11	407.05	101.93	305.12	105.56	301.49
MW-12	474.43	154.52	319.91	155.71	318.72
MW-12V	481.67	156.53	325.14	157.98	323.69

Notes:

ft. = feet; ft. NAVD = elevation in feet, referenced to North American Vertical Datum (1988); TOC = top of casing; BTOC = below top of casing; N/A = Not Acquired



Table 4. Relative Percent Difference (RPD) Calculations

Plant Gorgas Bottom Ash Landfill (BALF)

02/20/2023 - 08/22/2023

MW-1				
Sample Date = 2/20/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	151	159	5.16%
Chloride	mg/L	2.05	2	2.47%
Fluoride	mg/L	0.221	0.186	17.20%
Sulfate	mg/L	1520	1430	6.10%
Arsenic	mg/L	0.00027	0.00027	1.84%
Barium	mg/L	0.0102	0.0105	2.90%
Cadmium	mg/L	0.00185	0.00181	2.19%
Cobalt	mg/L	0.0665	0.0678	1.94%
Lithium	mg/L	0.0241	0.0243	0.83%
Selenium	mg/L	0.00258	0.00262	1.54%
Sample Date = 8/22/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	183	159	14.04%
Chloride	mg/L	2.38	2.38	0.00%
Fluoride	mg/L	0.159	0.168	5.51%
Sulfate	mg/L	1560	1520	2.60%
Barium	mg/L	0.00976	0.00939	3.86%
Cadmium	mg/L	0.00205	0.00204	0.49%
Cobalt	mg/L	0.086	0.0852	0.94%
Lithium	mg/L	0.0225	0.0231	2.63%
Selenium	mg/L	0.00151	0.00151	0.00%

Notes:

1. The RPD calculations presented are for analyte pairs where original and duplicate results are valid, unqualified detections.
2. RPD calculation results less than or equal to 20% are considered acceptable.
3. Results greater than 20% are given data validation flags to indicate RPD criteria failure. Communication to sampling team and lab may be necessary to explore nature of RPD failure(s).



Table 5. Summary of Background Levels and Groundwater Protection Standards

Plant Gorgas Bottom Ash Landfill (BALF)

Appendix IV Analytes			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.0048	0.01
Barium	mg/L	0.0165	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00885	0.00885
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	0.529	0.529
Fluoride	mg/L	0.63	4
Lead	mg/L	0.000108	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.0209	0.05
Thallium	mg/L	0.000226	0.002
Combined Radium 226 + 228	pCi/L	1.49	5

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. Background concentrations/limits are used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and ADEM Rule 335-13-15-.06(h).
4. GWPS are generally updated on a 2 year basis which began in the Fall of 2019 (Fall 2019, Fall 2021, etc).

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 02/20/2023 - 02/22/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Turbidity NTU	Field Temperature C	pH_Field SU	ORP mv	DO mg/L	Conductivity uS/cm
Upgradient	MW-1	02/20/2023	0.73	19.59	5.07	361.14	0.95	2297.01
Upgradient	MW-2	02/20/2023	0.41	18.95	6.24	72.91	0.82	1773
Upgradient	MW-3	02/20/2023	1.21	20.34	6.01	231.95	6.19	3276.9
Upgradient	MW-4	02/21/2023	0.72	19.61	6.35	219	3.15	3184.95
Downgradient	MW-10	02/22/2023	3.07	21.46	6.67	1.09	0.68	1326.24
Downgradient	MW-11	02/21/2023	0.8	20.11	6.77	-62.9	0.42	2597.79
Downgradient	MW-12	02/22/2023	3.81	21.83	5.72	7.95	0.28	3585.09
Downgradient	MW-7	02/21/2023	0.53	19.16	6.72	-6.78	0.94	2577.99
Downgradient	MW-8	02/21/2023	7.56	20.26	6.75	1.47	0.32	2722.64
Vert. Delineation	MW-12V	02/22/2023	1.96	22.78	6.95	-92.09	0.45	2671.7

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 02/20/2023 - 02/22/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	MW-1	02/20/2023	<0.03	151	2.05	0.221	5.07	1520
Upgradient	MW-2	02/20/2023	<0.03	160	1.7	0.267	6.24	767
Upgradient	MW-3	02/20/2023	<0.03	210	1.94	0.379	6.01	2110
Upgradient	MW-4	02/21/2023	0.0408 J	232	1.58	0.415	6.35	1930
Downgradient	MW-10	02/22/2023	0.122	152	2.77	0.132	6.67	581
Downgradient	MW-11	02/21/2023	0.104	314	50.4	0.129	6.77	1290
Downgradient	MW-12	02/22/2023	0.153	304	10.9	0.239	5.72	2440
Downgradient	MW-7	02/21/2023	0.0645 J	286	6.12	0.216	6.72	1450
Downgradient	MW-8	02/21/2023	0.0609 J	327	4.86	0.212	6.75	1510
Vert. Delineation	MW-12V	02/22/2023	0.152	297	34.3	0.199	6.95	1340

Notes:

- "J" indicates the result was detected above the MDL but below the PQL
- "<" indicates the result was not detected above the MDL and is considered a non-detect.
- 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 measurement.
- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 02/20/2023 - 02/22/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	MW-1	02/20/2023	<0.000508	0.000275	0.0102	<0.000406	0.00185	0.000409 J	0.0665	0.221
Upgradient	MW-2	02/20/2023	<0.000508	0.000243	0.0122	<0.000406	<6.8e-005	0.00033 J	0.0187	0.267
Upgradient	MW-3	02/20/2023	<0.000508	0.000224	0.00822	<0.000406	0.00144	0.000384 J	0.00435	0.379
Upgradient	MW-4	02/21/2023	<0.000508	<8.1e-005	0.0116	<0.000406	<6.8e-005	0.000244 J	<6.8e-005	0.415
Downgradient	MW-10	02/22/2023	<0.000508	0.000692	0.0222	0.000498 J	<6.8e-005	0.000277 J	0.00105	0.132
Downgradient	MW-11	02/21/2023	<0.000508	0.000859	0.0167	<0.000406	<6.8e-005	<0.000203	0.000889	0.129
Downgradient	MW-12	02/22/2023	<0.000508	0.0651	0.0131	<0.000406	<6.8e-005	<0.000203	0.0535	0.239
Downgradient	MW-7	02/21/2023	<0.000508	0.00153	0.0141	<0.000406	<6.8e-005	<0.000203	0.0043	0.216
Downgradient	MW-8	02/21/2023	<0.000508	0.00119	0.0148	<0.000406	<6.8e-005	<0.000203	0.00682	0.212
Vert. Delineation	MW-12V	02/22/2023	<0.000508	0.00455	0.0198	<0.000406	<6.8e-005	<0.000203	0.000114 J	0.199

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
 Plant Gorgas Bottom Ash Landfill (BALF)
 02/20/2023 - 02/22/2023

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	MW-1	02/20/2023	<6.8e-005	0.0241	<0.0003	<0.000102	0.00258	<6.8e-005	0.36 U
Upgradient	MW-2	02/20/2023	<6.8e-005	0.0412	<0.0003	<0.000102	<0.000508	<6.8e-005	0.837 U
Upgradient	MW-3	02/20/2023	<6.8e-005	0.0649	<0.0003	<0.000102	0.0123	<6.8e-005	0.234 U
Upgradient	MW-4	02/21/2023	<6.8e-005	0.0424	<0.0003	0.00015 J	0.00266	<6.8e-005	0.3 U
Downgradient	MW-10	02/22/2023	0.000155 J	0.149	<0.0003	0.000111 J	0.000611 J	<6.8e-005	0.804 U
Downgradient	MW-11	02/21/2023	<6.8e-005	0.204	<0.0003	0.00138	<0.000508	<6.8e-005	0.699 U
Downgradient	MW-12	02/22/2023	0.000214	0.0615	<0.0003	0.000131 J	<0.000508	0.000112 J	1.05
Downgradient	MW-7	02/21/2023	<6.8e-005	0.0932	<0.0003	0.00103	<0.000508	<6.8e-005	0.789 U
Downgradient	MW-8	02/21/2023	8.77e-005 J	0.12	<0.0003	0.000338	<0.000508	<6.8e-005	2.19
Vert. Delineation	MW-12V	02/22/2023	<6.8e-005	0.279	<0.0003	0.00304	<0.000508	<6.8e-005	0.782 U

Notes:

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2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 02/20/2023 - 02/22/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L
Upgradient	MW-1	02/20/2023	2.05	0.891	1520	0.123	151	<0.00812	7.28	277
Upgradient	MW-2	02/20/2023	1.7	<0.2	767	<0.00609	160	0.755	5.8	174
Upgradient	MW-3	02/20/2023	1.94	2.46	2110	0.0365 J	210	0.0467	6.65	392
Upgradient	MW-4	02/21/2023	1.58	0.244 J	1930	<0.00609	232	<0.00812	7.81	362
Downgradient	MW-10	02/22/2023	2.77	0.269 J	581	0.31	152	5.86	4.64	69.1
Downgradient	MW-11	02/21/2023	50.4	<0.2	1290	0.00821 J	314	3.94	6.25	165
Downgradient	MW-12	02/22/2023	10.9	0.298 J	2440	<0.00609	304	164	22.8	342
Downgradient	MW-7	02/21/2023	6.12	<0.2	1450	<0.00609	286	2.07	6.61	262
Downgradient	MW-8	02/21/2023	4.86	<0.2	1510	<0.00609	327	2.45	7.95	293
Vert. Delineation	MW-12V	02/22/2023	34.3	<0.2	1340	<0.00609	297	4.04	7.31	191

Notes:

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2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 02/20/2023 - 02/22/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO ₃ mg CaCO ₃ /L	Carbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L	Bicarbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Upgradient	MW-1	02/20/2023	9.83	32.1	24.6	11.5	4.53	21.4	NC	21.4
Upgradient	MW-2	02/20/2023	4.4	15.6	11.1	5.2	8.44	283	NC	283
Upgradient	MW-3	02/20/2023	0.477	40.2 J	22	10.3	3.56	81.7	NC	81.7
Upgradient	MW-4	02/21/2023	0.000436 J	31	12.2	5.69	4.29	182	NC	182
Downgradient	MW-10	02/22/2023	0.673	93.1	11.5	5.38	<1	188	NC	188
Downgradient	MW-11	02/21/2023	1.46	139	21.4	9.99	4.96	270	0.517	269
Downgradient	MW-12	02/22/2023	17.2	44.8	30.8	14.4	15.6	214	NC	214
Downgradient	MW-7	02/21/2023	2.1	38.1	10.4	4.88	1.91 J	296	NC	296
Downgradient	MW-8	02/21/2023	0.933	36.1	11.1	5.21	<1	349	NC	349
Vert. Delineation	MW-12V	02/22/2023	0.478	152	15.2	7.11	4.8	293	0.615	292

Notes:

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2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 02/20/2023 - 02/22/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Sulfide mg/L
Upgradient	MW-1	02/20/2023	0
Upgradient	MW-2	02/20/2023	0
Upgradient	MW-3	02/20/2023	0
Upgradient	MW-4	02/21/2023	0
Downgradient	MW-10	02/22/2023	0
Downgradient	MW-11	02/21/2023	0
Downgradient	MW-12	02/22/2023	0
Downgradient	MW-7	02/21/2023	0
Downgradient	MW-8	02/21/2023	0
Vert. Delineation	MW-12V	02/22/2023	0

Notes:

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2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Bottom Ash Landfill (BALF)
08/15/2023 - 08/22/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	MW-1	08/22/2023	2206.04	0.34	338.64	4.92	22.09	1.06
Upgradient	MW-2	08/22/2023	1720.05	0.09	69.56	5.81	21.04	2.91
Upgradient	MW-3	08/22/2023	4080.83	1.44	216.99	5.04	30.15	5.66
Upgradient	MW-4	08/22/2023	2962.35	1.95	168.43	6.28	23.06	7.22
Downgradient	MW-10	08/15/2023	1123.05	0.91	-3.4	7.53	24.75	9.72
Downgradient	MW-11	08/15/2023	2115.88	0.92	-25.2	7.62	23.14	2.6
Downgradient	MW-12	08/16/2023	2513.81	0.21	27.75	5.81	22.33	6.87
Downgradient	MW-7	08/15/2023	1591.01	0.14	3.69	7.47	20.57	7.68
Downgradient	MW-8	08/15/2023	1793.82	0.56	-0.67	7.58	26.03	9.69
Vert. Delineation	MW-12V	08/16/2023	2498.91	0.84	-30.24	6.91	21.77	4.96

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 08/15/2023 - 08/22/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	MW-1	08/22/2023	<0.03	183	2.38	0.159	4.92	1560
Upgradient	MW-2	08/22/2023	<0.03	168	3.13	0.184	5.81	912
Upgradient	MW-3	08/22/2023	0.0373 J	359	1.31	0.283	5.04	3140
Upgradient	MW-4	08/22/2023	0.0448 J	287	1.86	0.358	6.28	2390
Downgradient	MW-10	08/15/2023	0.146	188	3.54	0.0889 J	7.53	631
Downgradient	MW-11	08/15/2023	0.105	367	50.4	0.122 J	7.62	1280
Downgradient	MW-12	08/16/2023	0.165	313	11	0.134	5.81	2320
Downgradient	MW-7	08/15/2023	0.0663 J	339	6.51	0.154	7.47	1360
Downgradient	MW-8	08/15/2023	0.0654 J	328	4.92	0.174	7.58	1480
Vert. Delineation	MW-12V	08/16/2023	0.152	319	41.3	0.152	6.91	1300

Notes:

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- 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 measurement.
- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Bottom Ash Landfill (BALF)
08/15/2023 - 08/22/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	MW-1	08/22/2023	<0.00071	0.000187 J	0.00976	<0.000406	0.00205	<0.000203	0.086	0.159
Upgradient	MW-2	08/22/2023	<0.00071	0.000371	0.0134	<0.000406	8.54e-005 J	<0.000203	0.0434	0.184
Upgradient	MW-3	08/22/2023	<0.00071	0.00361	0.0158	0.00277	0.00867	<0.000203	0.529	0.283
Upgradient	MW-4	08/22/2023	<0.00071	0.000145 J	0.013	<0.000406	8.51e-005 J	0.000571 J	0.000142 J	0.358
Downgradient	MW-10	08/15/2023	<0.00071	0.000759	0.0195	<0.000406	<6.8e-005	0.000265 J	0.00267	0.0889 J
Downgradient	MW-11	08/15/2023	<0.00071	0.000825	0.0135	<0.000406	<6.8e-005	0.000258 J	0.000894	0.122 J
Downgradient	MW-12	08/16/2023	<0.00071	0.0714	0.0105	<0.000406	8.71e-005 J	0.00037 J	0.0527	0.134
Downgradient	MW-7	08/15/2023	<0.00071	0.00164	0.0132	<0.000406	<6.8e-005	0.00026 J	0.00391	0.154
Downgradient	MW-8	08/15/2023	<0.00071	0.00163	0.0129	<0.000406	<6.8e-005	0.000211 J	0.00596	0.174
Vert. Delineation	MW-12V	08/16/2023	<0.00071	0.0037	0.0197	<0.000406	<6.8e-005	0.000252 J	0.000175 J	0.152

Notes:

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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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
 Plant Gorgas Bottom Ash Landfill (BALF)
 08/15/2023 - 08/22/2023

EPA Appendix IV Set								
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L
Upgradient	MW-1	08/22/2023	<6.8e-005	0.0225	<0.0003	<0.005075	0.00151	<6.8e-005
Upgradient	MW-2	08/22/2023	<6.8e-005	0.0404	<0.0003	<0.005075	<0.000508	<6.8e-005
Upgradient	MW-3	08/22/2023	0.000105 J	0.316	<0.0003	<0.005075	0.0147	<6.8e-005
Upgradient	MW-4	08/22/2023	0.000136 J	0.0416	<0.0003	<0.005075	0.00148	<6.8e-005
Downgradient	MW-10	08/15/2023	0.000201 J	0.153	<0.0003	<0.005075	<0.000508	<6.8e-005
Downgradient	MW-11	08/15/2023	<6.8e-005	0.197	<0.0003	<0.005075	<0.000508	<6.8e-005
Downgradient	MW-12	08/16/2023	0.000531	0.0612	<0.0003	<0.005075	<0.000508	9.74e-005 J
Downgradient	MW-7	08/15/2023	<6.8e-005	0.0977	<0.0003	<0.005075	<0.000508	<6.8e-005
Downgradient	MW-8	08/15/2023	0.000178 J	0.117	<0.0003	<0.005075	<0.000508	<6.8e-005
Vert. Delineation	MW-12V	08/16/2023	0.000104 J	0.28	<0.0003	<0.005075	<0.000508	<6.8e-005

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 08/15/2023 - 08/22/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L
Upgradient	MW-1	08/22/2023	2.38	1.25	1560	0.137	183	<0.00812	7.63	346
Upgradient	MW-2	08/22/2023	3.13	<0.2	912	0.0309 J	168	3.22	6.25	191
Upgradient	MW-3	08/22/2023	1.31	<0.2	3140	2.48	359	6.78	9.74	551
Upgradient	MW-4	08/22/2023	1.86	<0.2	2390	0.125	287	0.233	9.02	465
Downgradient	MW-10	08/15/2023	3.54	<0.2	631	0.458	188	9.32	4.72	99.1
Downgradient	MW-11	08/15/2023	50.4	<0.2	1280	<0.009135	367	4.03	5.93	194
Downgradient	MW-12	08/16/2023	11	<0.2	2320	0.0101 J	313	160	22.2	359
Downgradient	MW-7	08/15/2023	6.51	<0.2	1360	0.0445 J	339	2.3	6.4	302
Downgradient	MW-8	08/15/2023	4.92	<0.2	1480	<0.009135	328	2.69	7.48	332
Vert. Delineation	MW-12V	08/16/2023	41.3	<0.2	1300	0.0505 J	319	3.46	7.07	208

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Gorgas Bottom Ash Landfill (BALF) 08/15/2023 - 08/22/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L	Bicarbonate Alkalinity as CaCO3 mg CaCO3/L
Upgradient	MW-1	08/22/2023	11.7	33.2	24	11.2	1.7 J	20.8	NC	20.8
Upgradient	MW-2	08/22/2023	8.13	18.2	12.2	5.7	3.72	247	NC	247
Upgradient	MW-3	08/22/2023	11.7	61.8	54.8	25.6	1.49 J	9.75	NC	9.75
Upgradient	MW-4	08/22/2023	0.00648	36	12.6	5.9	2.26	172	NC	172
Downgradient	MW-10	08/15/2023	0.928	109	11.9	5.56	<1	187	NC	187
Downgradient	MW-11	08/15/2023	1.35	164	21.8	10.2	1.49 J	280	NC	280
Downgradient	MW-12	08/16/2023	19.9	46	30.2	14.1	4.85	234	NC	234
Downgradient	MW-7	08/15/2023	1.93	49.5	10.7	5.01	1.36 J	304	NC	304
Downgradient	MW-8	08/15/2023	0.903	36.7	11.2	5.22	1.39 J	360	NC	360
Vert. Delineation	MW-12V	08/16/2023	0.449	181	15.2	7.1	<1	286	0.995	285

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Bottom Ash Landfill (BALF)
08/15/2023 - 08/22/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Sulfide mg/L
Upgradient	MW-1	08/22/2023	0
Upgradient	MW-2	08/22/2023	0
Upgradient	MW-3	08/22/2023	0
Upgradient	MW-4	08/22/2023	0
Downgradient	MW-10	08/15/2023	0
Downgradient	MW-11	08/15/2023	0
Downgradient	MW-12	08/16/2023	0
Downgradient	MW-7	08/15/2023	0
Downgradient	MW-8	08/15/2023	0
Vert. Delineation	MW-12V	08/16/2023	0

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" 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 measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Appendix A



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

Analyte	Units	MW-1								
		04/26/2016	06/20/2016	08/08/2016	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/17/2017	03/22/2017
Appendix III										
Boron	mg/L	0.0231 J	0.0227 J	0.0278 J	0.0247 J	0.0307 J	0.0241 J	0.0202 J	0.0201 J	0.0224 J
Calcium	mg/L	147	152	150	142	139	133	144	131	141
Chloride	mg/L	1.94	2.09	2.18	2.22	2.34	2.34	2.5	2.68	2.4
Fluoride	mg/L	0.146 J	0.148 J	0.137 J	0.133 J	0.103 J	0.05 J	0.047 J	0.09 J	0.12
pH_Field	SU	5.2	5.18	5.12	--	5.21	5.2	5.19	5.17	5.2
Sulfate	mg/L	1490	1420	1460	1450	1460	1330	1420	1350	1500
TDS	mg/L	2080	2060	2070	2040	2110	2000	2070	1930	2060
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.00941 J	0.00951 J	0.00991 J	0.00949 J	0.0105	0.00931 J	0.00879 J	0.00929 J	0.00938 J
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	0.00196	0.0021	0.00206	0.00182	0.00188	0.00175	0.00197	0.002	0.0019
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.0343	0.0413	0.0513	0.0471	0.0525	0.0527	0.0569	0.0768	0.0535
Combined Radium 226 + 228	pCi/L	0.622	0.159 U	0.511 U	0.566 U	0.537 U	0.636	0.807	0.308 U	0.344 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	0.0264 J	0.0246 J	0.0229 J	0.0236 J	0.0229 J	0.0227 J	0.0236 J	0.0228 J	0.0238 J
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	0.00261 J	0.00242 J	0.00253 J	<0.002	0.00211 J	<0.002	<0.002	<0.002	0.0022 J
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-1										
04/18/2017	05/30/2017	08/23/2017	02/13/2018	05/22/2018	06/12/2018	10/17/2018	11/19/2018	05/14/2019	10/08/2019	10/16/2019
<0.02	<0.02	0.0253 J	--	0.0224 J	0.0214 J	0.0216 J	0.0237 J	<0.0609	<0.03	0.0385 J
149	140	152	--	166	203	171	154	167	157	157
2.4	2.6	2.7	--	2.3	2.3	--	1.7 J	2.28	2.31	2.42
0.12	0.13	0.16	0.14	0.16	0.16	--	0.15	0.119	0.0924 J	0.0756 J
5.2	5.14	5.12	5.18	5.2	5.15	5.12	5.09	5.19	5.12	5.16
1300	1400	1500	--	2100	1500	--	1300	1560	1540	1680
2140	2240	2160	--	2380	2400	2220	2360	2340	2330	3650
<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0008	<0.0008	0.00137 J	<0.0008	<0.0008
<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0.00964 J	0.00982 J	--	0.00937 J	0.0102	0.0104	0.00952 J	0.00915 J	0.00913 J	0.0109	0.0106
<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
0.00159	0.00214	--	0.0018	0.00201	0.00217	0.00228	0.00156	0.00238	0.00218	0.00225
<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
0.0442	0.0465	--	0.062	0.0443	0.0512	0.0751	0.0825	0.0485	0.0778	0.08
0.934	0.149 U	--	0.774	-0.091 U	1.18	--	0.862	0.509	1.47	0.204 U
<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0.0242 J	0.0229 J	--	0.0233 J	0.0263 J	0.0251 J	0.025 J	0.0241	0.026 J	0.0268	0.0263
<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003
<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
0.0027 J	0.00316 J	--	0.00211 J	0.00372 J	0.00409 J	<0.002	<0.002	0.00316 J	<0.002	<0.002
<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-1										MW-2
02/03/2020	04/06/2020	07/13/2020	08/03/2020	02/22/2021	07/12/2021	01/25/2022	07/05/2022	02/20/2023	08/22/2023	04/25/2016
<0.03	<0.03	<0.03	<0.03	0.0307 J	<0.03	<0.03	<0.03	<0.03	<0.03	0.0241 J
172	149	147	148	151	152	159	158	172	144	123
2.07	2.01	2.1	2.05	2.16	2.25	2.09	2.07	2.05	2.38	1.9
0.0982 J	0.101	0.0678 J	<0.06	0.082 J	0.112	0.101	0.11 J	0.186	0.168	0.149 J
5	5.21	5.14	5.08	5.06	5.13	5.11	5.01	5.07	4.92	5.94
1510	1530	1450	1370	1400	1560	1430	1600	1520	1560	745
2380	2240	2240	2200	2230	2210	2150	2100	2280	2160	1260
<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.00071	<0.0006
<0.001	<0.001	<0.001	<0.001	0.000403	0.0003	0.000274	0.000282	0.000298	0.000207	<0.001
0.00995 J	0.00971 J	0.0101	0.0107	0.0107	0.00991	0.00926	0.01	0.0102	0.00939	0.0134
<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006
0.00182	0.00184	0.0019	0.00237	0.00184	0.00185	0.00196	0.00211	0.00154	0.00182	<0.0002
<0.002	<0.002	<0.002	<0.002	0.000382 J	0.000487 J	0.000434 J	0.000364 J	0.00022 J	<0.000203	<0.002
0.0495	0.0417	0.0532	0.0722	0.0657	0.0549	0.0654	0.0631	0.0581	0.0827	0.0487
0.521 U	0.309 U	0.219 U	-0.127 U	0.677 U	0.476 U	1.01 U	1.49	0.809 U	1.1 U	--
<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001
0.0292	0.0278	0.028	0.0259	0.0301	0.0267	0.0237	0.0237	0.0233	0.0225	0.0353 J
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025
<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.000102	0.000159 J	<0.005075	<0.002
0.00272 J	0.00275 J	0.0025 J	0.00278 J	0.00241	0.00245	0.00216	0.00269	0.00262	0.00151	<0.002
<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-2										
05/05/2016	06/20/2016	08/08/2016	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/17/2017	03/22/2017	04/18/2017	05/31/2017
--	0.0284 J	0.034 J	0.0316 J	0.0367 J	0.0331 J	0.035 J	0.0259 J	0.0243 J	0.0206 J	0.0234 J
--	168	180	180	184	171	179	188	155	156	151
--	3.43	3.31	3.23	3.21	3.35	3.34	3.58	3	2.6	4.4 J
--	0.148 J	0.134 J	0.129 J	0.086 J	0.027 J	0.027 J	0.066 J	0.13	0.16	0.13
--	5.96	5.88	--	5.91	5.84	5.82	5.87	6.01	6.02	5.85
--	964	1100	1130	1140	1060	1100	1160	900	870	1100
--	1620	1740	1720	1800	1800	1740	1960	1510	1580	1730
--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
--	<0.001	<0.001	<0.001	<0.001	<0.001	0.00111 J	<0.001	<0.001	<0.001	<0.001
--	0.0165	0.0162	0.0139	0.0164	0.0138	0.0144	0.0135	0.0132	0.012	0.0126
--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.000311 J	<0.0002	<0.0002	0.000212 J
--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
--	0.0767	0.103	0.093	0.0964	0.0904	0.0857	0.0745	0.0328	0.0242	0.0441
-0.0718 U	0.295 U	0.231 U	0.65	0.845	0.994	0.537 U	-0.0159 U	0.279 U	0.32 U	0.178 U
--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
--	0.0583	0.0627	0.0651	0.0622	0.0293 J	0.0667	0.0636	0.0464 J	0.0446 J	0.0496 J
--	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-2										
08/23/2017	02/13/2018	05/22/2018	06/12/2018	10/17/2018	11/19/2018	05/14/2019	10/08/2019	10/16/2019	02/03/2020	04/06/2020
0.0267 J	--	0.0251 J	0.0275 J	0.0321 J	0.0324 J	<0.0609	0.0371 J	0.0419 J	<0.03	<0.03
155	--	172	179	200	221	168	190	194	172	152
4.4	--	3.2	3.7	--	3	2.98	4.26	4.04	2.48	2.43
0.16	0.22	0.17	0.16	--	0.18	0.17	0.164	0.114	0.182	0.207
5.89	6.21	6.04	5.95	5.9	6.03	6.07	5.96	5.98	5.95	6.21
920	--	1200	860	--	1000	948	1230	1170	803	786
1550	--	1500	1550	1740	1990	1480	1840	1830	1440	1440
--	<0.0006	<0.0006	<0.0006	<0.0008	<0.0008	0.000989 J	<0.0008	<0.0008	<0.0008	<0.0008
--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
--	0.0127	0.0131	0.0138	0.0137	0.0115	0.0109	0.0151	0.0146	0.0122	0.0125
--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
--	0.0179	0.028	0.0366	0.0745	0.0225	0.0222	0.0674	0.073	0.0193	0.0116
--	0.804	0.0077 U	-0.315 U	--	0.654	0.579	0.493 U	0.046 U	-0.0245 U	0.212 U
--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
--	0.0615	0.0465 J	0.0472 J	0.0633	0.0584	0.0445	0.0677	0.0661	0.0534	0.0496
--	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-2								MW-3		
07/13/2020	08/03/2020	02/22/2021	07/12/2021	01/25/2022	07/05/2022	02/20/2023	08/22/2023	04/25/2016	06/22/2016	08/09/2016
<0.03	0.0317 J	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.028 J	0.0433 J	0.0429 J
163	172	178	159	195	169	160	168	224	266	260
4.05	4.03	1.72	2.36	2.28	2.62	1.7	3.13	1.32	1.46	1.35
0.132	0.122	0.209	0.196	0.239	0.2	0.267	0.184	0.243 J	0.269 J	0.363
5.84	5.95	6.1	6.16	6.22	6.15	6.24	5.81	5.56	5.57	5.67
843	907	864	763	842	844	767	912	1890	2100	2050
1540	1650	1620	1390	1500	1250	1420	1520	2720	3250	3050
<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.00071	<0.0006	<0.0006	<0.0006
<0.001	<0.001	0.000295	0.000364	0.000254	0.000278	0.000231	0.000257	<0.001	<0.001	<0.001
0.0145	0.0147	0.0132	0.013	0.0134	0.0124	0.0104	0.0133	0.00803 J	0.0101	0.00889 J
<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	0.00122 J	0.00144 J	0.00331
<0.0003	<0.0003	8.96e-005 J	8.27e-005 J	0.00012 J	9.62e-005 J	8.1e-005 J	8.54e-005 J	0.0121	0.00163	0.00122
<0.002	<0.002	<0.000203	0.000251 J	0.000258 J	<0.000203	<0.000203	<0.000203	0.00373 J	0.00606 J	<0.002
0.0405	0.0589	0.0161	0.0155	0.0166	0.0184	0.0187	0.0434	0.232	0.332	0.311
0.0814 U	0.888 U	0.434 U	0.155 U	0.663 U	1.31	0.837 U	0.763 U	0.484 U	0.2 U	0.378 U
<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	0.000135 J	<6.8e-005	<0.001	<0.001	<0.001
0.0615	0.0611	0.0625	0.0495	0.0486	0.0475	0.0412	0.0404	0.0964	0.156	0.122
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025
<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.002	<0.002	<0.002
<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002
<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	0.000205 J	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-3										
08/24/2016	10/04/2016	10/26/2016	11/21/2016	01/18/2017	03/22/2017	04/18/2017	05/31/2017	08/23/2017	02/13/2018	05/24/2018
0.0431 J	0.04 J	0.0375 J	0.0406 J	0.0548 J	0.0344 J	<0.02	0.0454 J	0.0425 J	--	0.0339 J
274	243	254	263	431	318	296	306	298	--	297
1.47	1.59	1.27	1.38	1.34	2	2.2	1.5 J	1.8 J	--	1.6 J
0.346	0.266 J	0.266 J	0.244 J	0.385	0.41	0.29	0.37	0.55	0.27	0.6
5.63	5.69	5.56	5.42	5.11	4.52	5.84	4.56	4.77	5.67	5.19
2190	1950	1980	2060	2620	3200	2500	2800	2600	--	2700
3080	2900	2940	3090	4020	4180	4440	3970	4050	--	3680
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006
<0.001	<0.001	<0.001	<0.001	<0.001	0.00122 J	<0.001	<0.001	--	<0.001	<0.001
0.00962 J	0.00984 J	0.00878 J	0.00833 J	0.00966 J	0.00991 J	0.00976 J	0.00866 J	--	0.00821 J	0.00977 J
0.00308	0.00129 J	0.0071	0.00689	0.0169	0.00686	<0.0006	0.00547	--	<0.0006	0.00164 J
<0.0002	0.000689 J	0.00136	0.00171	0.003	0.00473	0.00117	0.00296	--	0.00232	0.00459
<0.002	<0.002	<0.002	<0.002	<0.002	0.00945 J	0.0105	<0.002	--	<0.002	<0.002
0.271	0.148	0.236	0.241	0.347	0.271	0.00324 J	0.225	--	0.00661 J	0.158
0.131 U	0.514 U	0.755	0.7	0.606	0.927	0.334 U	0.8	--	0.649	0.448 U
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
0.138	0.0966	0.134	0.167	0.237	0.203	0.0764	0.218	--	0.0964	0.145
<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
<0.002	<0.002	<0.002	<0.002	<0.002	0.0141	0.0158	0.00632 J	--	0.0209	0.00918 J
<0.0002	<0.0002	0.000209 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-3										
06/12/2018	11/19/2018	04/10/2019	05/14/2019	10/08/2019	10/16/2019	02/03/2020	04/06/2020	07/13/2020	08/03/2020	02/22/2021
0.0371 J	0.0514 J	<0.03	<0.0609	0.0537 J	0.05 J	--	<0.03	0.0366 J	0.0424 J	<0.03
318	387	348	254	371	346	--	177	264	285	312
1.4 J	<1.4	2.25	2.28	1.36	1.4	--	1.72	1.34	1.17	2.22
0.53	0.31	0.273	0.281	0.225	0.106	--	0.314	0.13	0.0766 J	0.246
4.79	3.77	5.54	5.71	4.98	4.51	--	5.91	5.16	5.06	5.59
2500	3000	2460	2460	2950	2820	--	1670	2130	2330	3040
3820	4710	3680	3580	4720	4210	--	2630	3650	3760	4670
<0.0006	<0.0008	0.000978 J	<0.0008	<0.0008	<0.0008	--	<0.0008	<0.0008	<0.0008	<0.000507
0.00103 J	0.0012 J	<0.001	<0.001	0.0048 J	0.00389 J	--	<0.001	0.0032 J	0.00426 J	0.000789
0.00997 J	0.0109	0.0101	0.00922 J	0.0154	0.0128	--	0.00931 J	0.0142	0.0166	0.00981
0.00306	0.0185	<0.0006	<0.0006	0.0084	0.0103	--	<0.0006	0.0021 J	0.00405	<0.000406
0.00351	0.00309	0.00337	0.0013	0.00598	0.00448	--	0.000645 J	0.0089	0.00652	0.00536
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00035 J
0.291	0.386	0.0144	0.00536	1.07	0.848	--	<0.002	0.47	0.64	0.0515
0.234 U	0.521	--	0.176 U	0.833 U	0.0279 U	0.0246 U	0.569 U	0.53	0.765 U	0.472 U
<0.001	0.00692	<0.001	<0.001	<0.001	0.00108 J	--	<0.001	<0.001	0.002 J	8.8e-005 J
0.194	0.323	0.0905	0.0828	0.419	0.337	--	0.0689	0.256	0.27	0.126
<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<6.8e-005
0.00836 J	0.00439 J	0.0113	0.0119	0.00256 J	0.00286 J	--	0.01	0.0134	0.0146	0.0181
<0.0002	0.000226 J	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

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HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-3					MW-4					
07/12/2021	01/25/2022	07/05/2022	02/20/2023	08/22/2023	04/25/2016	06/20/2016	08/09/2016	08/24/2016	10/03/2016	10/26/2016
<0.03	<0.03	0.0374 J	<0.03	0.0373 J	0.0414 J	0.0434 J	0.0453 J	0.0451 J	0.0511 J	0.0507 J
252	305	369	234	359	261	295	318	319	293	311
2.13	2.12	1.59	1.94	1.31	1.53	1.85	1.95	2.07	2.02	2.07
0.287	0.325	0.386	0.379	0.283	0.372	0.361	0.326	0.329	0.287 J	0.194 J
5.86	5.9	5.34	6.01	5.04	6.22	6.21	6.11	6.11	6.13	6.12
2380	2550	3110	2110	3140	2260	2500	2750	2770	3060	2650
3510	3950	4220	3230	4820	3300	3870	4140	4190	4190	4400
<0.000508	<0.000508	<0.000508	<0.000508	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
0.000376	0.00024	0.00374	0.000227	0.00393	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0.00857	0.00821	0.0151	0.00729	0.0151	0.0114	0.0103	0.0119	0.0118	0.0119	0.0104
<0.000406	<0.000406	0.00237	<0.000406	0.00277	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
0.000937	0.00178	0.00848	0.00136	0.00867	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
0.000307 J	0.00034 J	0.000235 J	0.000297 J	<0.000203	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
0.00567	0.00535	0.195	0.00435	0.529	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
0.114 U	0.418 U	1.33	0.234 U	1.19 U	0.434 U	0.287 U	0.516 U	0.266 U	0.59 U	0.164 U
8.42e-005 J	<6.8e-005	7.33e-005 J	<6.8e-005	0.000105 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
0.0808	0.0732	0.251	0.065	0.318	0.0528	0.0554	0.0452 J	0.0488 J	0.0476 J	0.049 J
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
<6.8e-005	8.01e-005 J	<0.000102	0.000135 J	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
0.0133	0.0163	0.0205	0.0123	0.0147	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-4										
11/21/2016	01/18/2017	03/22/2017	04/18/2017	05/31/2017	08/23/2017	02/13/2018	05/23/2018	06/12/2018	11/19/2018	04/10/2019
0.0458 J	0.0445 J	0.0432 J	0.0409 J	0.0392 J	0.042 J	--	0.0433 J	0.0478 J	0.0526 J	0.0438 J
320	417	292	302	284	297	--	296	355	289	356
2.39	1.9	1.5 J	1.6 J	2.1	2.3	--	2	1.7 J	<1.4	1.88
0.192 J	0.223 J	0.32	0.32	0.31	0.38	0.38	0.38	0.39	0.36	0.384
6.09	6.09	6.15	6.19	6.13	6.12	6.22	6.21	6.16	6.16	6.14
2720	2650	2700	2400	2700	2700	--	2400	2600	2400	2090
4230	4120	3980	3880	4210	3990	--	3740	4080	3920	3280
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0008	0.00097 J
<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
0.0106	0.0101	0.0103	0.0107	0.0104	--	0.0111	0.0107	0.0108	0.0107	0.0107
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
0.296 U	0.0267 U	0.132 U	-0.0439 U	0.3 U	--	0.69	0.186 U	0.153 U	0.794	--
<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
0.0477 J	0.045 J	0.0493 J	0.0494 J	0.0501	--	0.0446 J	0.0513	0.0511	0.0467	0.0504
<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.00025	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
<0.002	<0.002	<0.002	<0.002	<0.002	--	0.00403 J	<0.002	<0.002	0.00436 J	<0.002
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-4										
05/14/2019	10/10/2019	10/16/2019	02/03/2020	04/06/2020	07/14/2020	02/22/2021	07/12/2021	01/25/2022	07/05/2022	02/21/2023
<0.0609	0.0487 J	0.0505 J	--	0.0428 J	0.0441 J	0.0397 J	0.0411 J	0.0432 J	0.0417 J	0.0416 J
254	302	356	--	222	259	271	242	259	294	232
1.82	1.93	1.92	--	1.5	1.61	1.52	1.56	1.54	1.63	1.58
0.335	0.304	0.302	--	0.368	0.33	0.357	0.35	0.364	0.362	0.415
6.23	6.15	6.19	--	6.35	6.2	6.19	6.06	6.3	6.12	6.35
2240	2690	3050	--	1810	1970	2040	1930	1930	2380	1930
3130	4000	4060	--	2820	3310	3190	3000	3180	3240	3160
<0.0008	<0.0008	<0.0008	--	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
<0.001	<0.001	<0.001	--	<0.001	<0.001	0.000125 J	0.000116 J	8.75e-005 J	9.56e-005 J	<8.1e-005
0.00949 J	0.0116	0.0125	--	0.0115	0.0122	0.0111	0.0108	0.00908	0.0115	0.0105
<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	8.96e-005 J	8.19e-005 J	8.59e-005 J	7.46e-005 J	<6.8e-005
<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.000203	0.000302 J	0.000216 J	<0.000203	<0.000203
<0.002	<0.002	<0.002	--	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
0.352 U	1.02 U	0.356 U	0.254 U	0.459 U	0.169 U	0 U	0.301 U	0.884 U	1.1	0.3 U
<0.001	<0.001	<0.001	--	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
0.0485	0.054	0.052	--	0.0519	0.0543	0.0558	0.0533	0.0434	0.0484	0.0431
<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	--	<0.002	<0.002	0.000131 J	0.000138 J	0.000114 J	0.000108 J	0.000274
0.00201 J	<0.002	<0.002	--	0.00284 J	<0.002	0.00222	0.00155	0.00224	0.000961 J	0.00248
<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-4	MW-7									
08/22/2023	04/27/2016	06/21/2016	10/12/2017	10/13/2017	10/14/2017	10/15/2017	10/16/2017	10/17/2017	11/16/2017	02/14/2018
0.0447 J	0.253	0.0768 J	0.0685 J	0.0674 J	0.0756 J	0.0719 J	0.0726 J	0.0716 J	0.0644 J	--
287	198	327	317	302	283	294	284	294	299	--
1.86	1.71	2.04	31	32	33	34	34	34	35	--
0.358	0.2 J	0.163 J	0.17	0.19	0.2	0.2	0.2	0.19	0.18	0.18
6.28	--	--	--	--	--	--	--	--	--	6.67
2390	1050	1410	1400	1400	1300	1300	1300	1300	1300	--
3780	1640	2460	2460	2420	2320	1150	2320	2360	2460	--
<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
<0.000112	<0.001	0.00165 J	0.00188 J	0.00181 J	0.00127 J	0.00144 J	0.00139 J	0.00138 J	--	0.00131 J
0.013	0.0107	0.0129	0.014	0.0147	0.0123	0.0132	0.0122	0.0121	--	0.0119
<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003
<0.000203	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
0.000142 J	<0.002	<0.002	0.00269 J	0.00341 J	0.00451 J	0.00371 J	0.00371 J	0.0035 J	--	<0.002
0.887 U	0.374 U	0.151 U	0.182 U	0.517 U	0.43 U	0.45 U	0.55 U	0.474 U	--	0.736
0.000136 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
0.0418	0.163	0.171	0.134	0.127	0.112	0.129	0.122	0.122	--	0.131
<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
0.00148	0.00445 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-7										
05/23/2018	11/20/2018	05/15/2019	10/08/2019	04/08/2020	07/14/2020	02/23/2021	07/20/2021	01/31/2022	07/06/2022	02/21/2023
0.0715 J	0.0772 J	0.0678 J	0.073 J	0.077 J	0.0865 J	0.0803 J	0.0721 J	0.0689 J	0.0752 J	0.0645 J
321	306	302	294	280	261	292	254	270	280	286
28	20	15.9	16.8	10.6	9.68	7.85	6.35	6.4	6.24	6.12
0.18	0.19	0.169	0.183	0.153	0.193	0.2	0.286	0.173	0.198	0.216
--	--	6.61	6.52	6.64	6.52	6.7	6.58	6.48	6.46	6.72
1900	1100	1510	1570	1270	1330	1320	1170	1370	1330	1450
2390	2090	2310	2340	2230	2210	2320	2110	2140	2080	2220
<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
0.00155 J	0.00133 J	0.00138 J	0.00145 J	0.00136 J	0.00147 J	0.00141	0.00164	0.00147	0.00157	0.00162
0.0135	0.0116	0.0114	0.0145	0.0127	0.0148	0.014	0.0142	0.014	0.0143	0.0141
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000203	<0.000203	0.000217 J	<0.000203	<0.000203
<0.002	0.00306 J	0.00234 J	0.00408 J	0.00394 J	0.00653	0.00294	0.00561	0.00546	0.00571	0.00381
0.0192 U	0.494	0.61	0.345 U	0.237 U	0.434	0.696 U	0.356 U	0.473 U	0.716 U	0.789 U
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
0.129	0.12	0.127	0.131	0.117	0.103	0.131	0.096	0.0839	0.0806	0.0892
<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00107	0.00086	0.000929	0.000846	0.000885
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	0.000717 J	<0.000508
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-7	MW-8									
08/15/2023	04/27/2016	06/21/2016	10/12/2017	10/13/2017	10/14/2017	10/15/2017	10/16/2017	10/17/2017	11/16/2017	02/14/2018
0.0663 J	0.0662 J	0.0681 J	0.0687 J	0.0831 J	0.0702 J	0.0702 J	0.0707 J	0.0695 J	0.0675 J	--
339	282	291	300	298	299	307	299	294	308	--
6.51	2.34	2.29	150	130	140	130	140	140	130	--
0.154	0.212 J	0.211 J	0.22	0.23	0.22	0.22	0.22	0.21	0.22	0.21
7.47	--	--	--	--	--	--	--	--	--	6.55
1360	1550	1470	1400	1600	1400	1400	1400	1400	1400	--
2270	2480	2360	2530	2740	2630	2530	2740	2650	2650	--
<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
0.00157	<0.001	0.00101 J	0.00197 J	0.00159 J	0.00126 J	0.00106 J	0.00106 J	0.00103 J	--	0.00185 J
0.0133	0.0108	0.0116	0.0141	0.0148	0.0134	0.0139	0.0129	0.0126	--	0.0126
<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003
0.00026 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
0.00391	0.00436 J	0.00484 J	0.005 J	0.0052 J	0.00513 J	0.00518 J	0.00453 J	0.00463 J	--	0.00441 J
0.452 U	-0.207 U	0.529	0.267 U	0.873 U	1.6 U	0.327 U	0.524 U	0.0455 U	--	0.633
<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
0.0892	0.171	0.181	0.182	0.189	0.177	0.191	0.189	0.184	--	0.183
<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-8										
05/23/2018	11/20/2018	05/15/2019	10/09/2019	04/08/2020	07/15/2020	02/23/2021	07/20/2021	02/01/2022	07/06/2022	02/21/2023
0.0693 J	0.0771 J	0.0689 J	0.0723 J	0.0683 J	0.0723 J	0.0731 J	0.0656 J	0.0639 J	0.0686 J	0.0617 J
344	327	305	329	281	280	306	281	284	299	317
75	45	52	39.2	24.9	23.8	17.9	14.3	8.56	6.5	4.86
0.21	0.21	0.192	0.189	0.192	0.196	0.208	0.262	0.177	0.173	0.212
--	--	6.6	6.67	6.7	6.71	6.73	6.64	6.77	6.72	6.75
2100	1400	1640	1550	1380	1410	1420	1500	1500	1460	1510
2750	2520	2540	2590	2450	2460	2550	2420	2420	2320	2370
<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
0.00157 J	0.00173 J	0.00136 J	0.00142 J	0.00102 J	0.00212 J	0.00117	0.00111	0.00131	0.000356	0.000567
0.0137	0.0123	0.0122	0.0137	0.0137	0.0143	0.014	0.0141	0.0142	0.0146	0.0148
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000203	<0.000203	0.000253 J	0.000368 J	<0.000203
0.00466 J	0.00551	0.00643	0.00864	0.00762	0.00821	0.00796	0.00714	0.00684	0.00701	0.00682
0.377 U	0.28 U	0.697	0.416 U	1.38 U	0.398 U	0.685 U	0.42 U	0.643 U	0.415 U	2.19
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	9.44e-005 J	<6.8e-005	<6.8e-005	<6.8e-005
0.194	0.181	0.16	0.163	0.149	0.152	0.166	0.151	0.124	0.124	0.119
<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0129	0.000329	0.000453	0.000336	0.000582
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-8	MW-10									
08/15/2023	04/27/2016	06/23/2016	08/10/2016	10/05/2016	11/21/2016	01/17/2017	03/21/2017	05/31/2017	08/23/2017	02/15/2018
0.0632 J	0.371	0.251	0.216	0.187	0.182	0.2	0.178	0.149	0.181	--
328	279	256	245	225	179	168	152	130	147	--
4.92	1.46	1.49	1.55	1.58	1.62	1.61	1.6 J	3.2	6.1	--
0.174	0.337	0.155 J	0.123 J	0.086 J	0.056 J	0.103 J	0.15	0.18	0.23	0.23
7.58	--	--	--	--	--	--	--	--	--	6.26
1480	1250	1010	992	1010	834	700	660	700	700	--
2410	1940	1680	1660	1640	1390	1300	1170	1210	1160	--
<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
0.00163	0.00196 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
0.0136	0.0187	0.0181	0.0186	0.023	0.0219	0.0203	0.0203	0.0188	--	0.0199
<0.000406	0.00486	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000883 J	0.00123 J	--	0.00235 J
<6.8e-005	0.000452 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003
0.000262 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
0.00556	0.0543	0.0106	0.00438 J	0.00663 J	0.0109	0.0146	0.013	0.0086 J	--	0.0199
0.269 U	0.316 U	0.451 U	0.368 U	0.515	0.489 U	0.236 U	0.101 U	1.19	--	0.55
<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
0.117	0.435	0.285	0.231	0.231	0.236	0.3	0.218	0.194	--	0.23
<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	0.00272 J
<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-10										
05/24/2018	11/19/2018	05/15/2019	10/09/2019	04/08/2020	07/14/2020	02/23/2021	07/20/2021	02/01/2022	07/06/2022	02/22/2023
0.159	0.211	0.234	0.181	0.209	0.25	0.205	0.201	0.177	0.146	0.14
159	160	186	146	164	208	151	149	155	150	152
5	7.8	6.93	4.51	2.64	3.09	3.63	3.64	3.97	2.79	2.77
0.13	0.26	0.276	0.142	0.243	0.224	0.202	0.268	0.157	0.145	0.132
--	--	6.37	6.5	6.36	6.42	6.45	6.46	6.62	6.64	6.67
560	720	780	748	658	845	747	665	707	635	581
1100	1220	1230	1120	1120	1270	1110	1080	1050	967	991
<0.0006	<0.0008	0.000996 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
<0.001	<0.001	0.00162 J	<0.001	0.0013 J	0.00164 J	0.0016	0.00102	0.000998	0.000348	8.35e-005 J
0.0198	0.0187	0.0189	0.0204	0.0201	0.0245	0.0201	0.0208	0.0198	0.0226	0.0191
0.001 J	0.00203 J	0.00177 J	0.00072 J	0.00114 J	0.00135 J	0.00128	0.000951 J	<0.000406	<0.000406	<0.000406
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.000148 J	8.07e-005 J	0.000138 J	<6.8e-005	<6.8e-005
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000203	0.000213 J	<0.000203	<0.000203	<0.000203
0.00905 J	0.0147	0.0226	0.00969	0.0176	0.0232	0.0167	0.0131	0.00978	0.00285	0.00105
0.472	0.167 U	0.421 U	0.742 U	0.205 U	0.314 U	0.329 U	0.344 U	0.012 U	0.501 U	0.804 U
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	7.67e-005 J	<6.8e-005	<6.8e-005	0.000155 J
0.192	0.211	0.23	0.202	0.23	0.255	0.223	0.196	0.175	0.172	0.148
<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	7.69e-005 J	6.96e-005 J	<0.000102	0.000225
<0.002	<0.002	0.00289 J	<0.002	<0.002	0.00273 J	0.00217	0.000982 J	0.000581 J	<0.000508	<0.000508
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-10	MW-11									
08/15/2023	04/26/2016	06/22/2016	08/09/2016	10/04/2016	11/21/2016	01/17/2017	03/21/2017	05/30/2017	08/23/2017	02/14/2018
0.168	0.094 J	0.0959 J	0.0964 J	0.0916 J	0.0929 J	0.0963 J	0.0947 J	0.0926 J	0.0968 J	--
188	400	398	399	389	386	344	396	370	374	--
3.54	2.16	2.16	2.19	2.21	2.24	2.23	2.5	3.2	2.8	--
0.0889 J	0.084 J	0.106 J	0.092 J	0.049 J	<0.01	0.044 J	0.08 J	0.096 J	0.11	0.1
7.53	--	--	--	--	--	--	--	--	--	6.6
631	1750	1720	1740	1750	1690	1670	1900	1700	1700	--
1050	2800	2550	2860	2800	2920	2750	2750	2890	2760	--
<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
0.000759	0.00189 J	0.00213 J	0.0021 J	0.00206 J	0.00182 J	0.00201 J	0.00183 J	0.00214 J	--	0.00171 J
0.0195	0.011	0.0122	0.012	0.0142	0.0114	0.0119	0.012	0.012	--	0.0139
<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003
<0.000203	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
0.00267	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
0.991 U	0.57	0.724	0.579	0.372 U	1.19	-0.187 U	0.403 U	0.998	--	1.74
0.000201 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
0.152	0.212	0.232	0.204	0.198	0.206	0.295	0.234	0.23	--	0.233
<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-11										
05/22/2018	11/20/2018	05/15/2019	10/10/2019	04/06/2020	07/13/2020	02/24/2021	07/21/2021	02/01/2022	07/05/2022	02/21/2023
0.102	0.106	0.101 J	0.109	0.109	0.111	0.108	0.104	0.105	0.105	0.104
375	370	380	373	333	350	325	322	318	334	327
24	59	75.4	84.6	100	79.6	113	73.8	68.3	55.2	50.4
0.1	0.1	0.1	0.0915 J	0.118	0.108	0.107	0.16	0.0848 J	0.124 J	0.129
--	--	6.62	6.69	6.72	6.71	6.67	6.74	6.83	6.75	6.77
2200	1400	1510	719	1400	1300	1330	1420	1350	1250	1290
2610	2480	2560	2460	2430	2400	2370	2210	2200	2020	2160
<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
0.00168 J	<0.001	<0.001	<0.001	<0.001	<0.001	0.000834	0.000901	0.000854	0.000881	0.000801
0.0148	0.0127	0.0132	0.0154	0.0147	0.0149	0.015	0.0159	0.015	0.0158	0.0144
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000203	<0.000203	0.000256 J	0.000453 J	<0.000203
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00026	0.000254	0.000455	0.000443	0.000889
0.276 U	1.04	1.18	0.902	0.678	0.665	0.869 U	0.951 U	0.883 U	0.697 U	0.699 U
<0.001	<0.001	<0.001	0.00145 J	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
0.24	0.248	0.251	0.275	0.282	0.277	0.3	0.271	0.216	0.233	0.206
<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00148	0.0013	0.00165	0.00151	0.00164
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-11	MW-12									
08/15/2023	04/27/2016	04/28/2016	06/22/2016	08/10/2016	10/05/2016	11/22/2016	01/18/2017	03/21/2017	05/31/2017	08/23/2017
0.105	--	0.19	0.118	0.197	0.179	0.197	0.186	0.183	0.193	0.185
360	--	349	374	348	344	342	359	352	313	349
50.4	--	4.12	3.44	4.15	4.12	3.98	3.6	3.6	3.9	4.2
0.122 J	--	0.153 J	0.146 J	0.127 J	0.09 J	0.012 J	0.071 J	0.09 J	0.11	0.13
7.62	--	--	--	--	--	--	--	--	--	--
1280	--	2360	1960	2300	2330	2220	1950	2400	2200	2100
2130	--	3730	2760	3710	3580	3400	3360	3320	3440	3250
<0.00071	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--
0.00088	--	0.0444	0.00953	0.0416	0.0431	0.0487	0.0428	0.0418	0.0466	--
0.0152	--	0.0109	0.0155	0.0125	0.0143	0.0118	0.0112	0.0108	0.0107	--
<0.000406	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--
<6.8e-005	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--
0.000258 J	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
0.000894	--	0.0531	0.0388	0.0565	0.0479	0.0453	0.0431	0.0414	0.0379	--
1.21 U	0.259 U	0.608	0.45 U	1.03	0.494 U	0.578	0.216 U	0.101 U	1.4	--
<6.8e-005	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
0.193	--	0.0735	0.118	0.0805	0.0757	0.0828	0.125	0.093	0.0787	--
<0.0003	--	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--
<0.005075	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
<0.000508	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
<6.8e-005	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-12										
02/15/2018	05/24/2018	11/19/2018	05/15/2019	10/09/2019	04/06/2020	07/13/2020	02/24/2021	07/20/2021	02/01/2022	07/05/2022
--	0.197	0.252	0.239	0.315	0.229	0.266	0.193	0.227	0.208	0.172
--	349	348	411	359	354	392	346	330	338	341
--	7.1	6.1	8.51	8.73	8.58	8.35	11.2	9.85	11.5	10.5
0.12	0.15	0.16	0.185	0.215	0.254	0.161	0.172	0.219	0.174	0.275
5.98	--	--	5.82	5.85	5.81	5.62	5.83	5.53	5.64	5.82
--	2300	2100	2800	2550	2580	2610	2280	2500	2230	2430
--	3300	3400	3890	4090	4060	4460	3810	3680	3610	3690
<0.0006	<0.0006	<0.0008	0.000977 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
0.0346	0.0478	0.0405	0.0511	0.0507	0.0597	0.0613	0.0516	0.0668	0.0629	0.0679
0.0113	0.0122	0.0108	0.0113	0.0126	0.0128	0.0124	0.0123	0.012	0.0102	0.011
<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000203	0.000276 J	0.00033 J	<0.000203
0.0333	0.0399	0.0485	0.0603	0.0512	0.0537	0.0515	0.0442	0.046	0.0447	0.0513
0.925	0.756	0.648	1	1.18	1.22	0.787	1.24	1.15 U	1.13 U	1.72
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000178 J	0.000231	<6.8e-005	0.000102 J
0.104	0.0819	0.0816	0.0736	0.0838	0.0786	0.0784	0.0949	0.0769	0.0656	0.0601
<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	8.8e-005 J	0.000169 J	0.000162 J	0.000402
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	0.000514 J	<0.000508
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	0.000106 J	<6.8e-005

Notes:

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2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



HISTORICAL ANALYTICAL DATA
Bottom Ash Landfill (BALF) (04/25/2016 - 08/22/2023)
APC Plant Gorgas
Walker County Alabama

MW-12		MW-12V								
02/22/2023	08/16/2023	10/10/2019	04/06/2020	07/13/2020	02/24/2021	07/20/2021	02/01/2022	07/05/2022	02/22/2023	08/16/2023
0.153	0.165	0.15	0.149	0.15	0.16	0.149	0.148	0.157	0.151	0.149
325	313	319	301	305	293	283	293	295	297	319
10.9	11	79.3	79.4	70.1	101	59.2	69.3	62	34.3	41.3
0.239	0.134	0.163	0.188	0.166	0.17	0.224	0.151	0.212	0.199	0.152
5.72	5.81	6.77	6.79	6.61	6.83	6.84	6.68	6.92	6.95	6.91
2440	2320	1490	1360	1280	1220	1220	1220	1300	1340	1300
3880	3780	2360	2310	2240	2240	2190	2110	2100	2240	2220
<0.000508	<0.00071	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.00071
0.0599	0.0672	0.00827	0.00731	0.0071	0.00584	0.00573	0.00482	0.00491	0.00423	0.00375
0.0105	0.0111	0.0236	0.019	0.019	0.0185	0.0186	0.0182	0.019	0.0174	0.0178
<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
<0.000203	0.00037 J	<0.002	<0.002	<0.002	<0.000203	<0.000203	0.000214 J	<0.000203	<0.000203	<0.000203
0.0535	0.0507	<0.002	<0.002	<0.002	0.000378	0.000181 J	0.000218	6.83e-005 J	0.000114 J	0.000175 J
1.05	0.964 U	0.446 U	0.116 U	0.794	0.865 U	0.763 U	1.01 U	1.09 U	0.782 U	0.862 U
0.000214	0.000531	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
0.0613	0.0583	0.297	0.298	0.294	0.345	0.33	0.277	0.31	0.287	0.283
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
0.000131 J	<0.005075	<0.002	<0.002	<0.002	0.00174	0.00188	0.00218	0.00247	0.00288	<0.005075
<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508
0.000112 J	<6.8e-005	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita

Appendix B

Appendix B. Historical Groundwater Elevations Summary
Plant Gorgas Bottom Ash Landfill (BALF)
10/12/2015 - 02/20/2023

Well	Hydraulic Location	Top of Casing Elevation (ft. AMSL)	Groundwater Elevation (ft.AMSL)											
			10/12/15	04/25/16	06/20/16	08/08/16	08/24/16	10/03/16	10/26/16	11/21/16	01/17/17	03/20/17	04/10/17	04/17/17
MW-1	Upgradient	Mine Spoil - Pottsville Fm Interface	410.95	411.22	410.7	410.49	410.43	410.31	410.19	410.1	410.07	410.67	410.89	410.94
MW-2	Upgradient	Mine Spoil - Pottsville Fm Interface	417.16	417.36	416.76	416.6	416.42	416.21	416.08	415.98	416.62	417.24	417.66	417.34
MW-3	Upgradient	Mine Spoil - Pottsville Fm Interface	415.81	416.41	415.45	415	415.08	414.82	414.64	414.43	415.27	416.07	418.23	417.21
MW-4	Upgradient	Mine Spoil - Pottsville Fm Interface	401.88	402.31	401.79	400.61	400.57	400.09	399.83	399.53	400.51	402.02	402.5	402.33
MW-7	Downgradient	Mine Spoil - Pottsville Fm Interface	333.98	336.39	334.07	333.91	NM	333.86	NM	333.71	333.81	334.1	336.18	NM
MW-8	Downgradient	Mine Spoil - Pottsville Fm Interface	353.1	351.49	351.75	351.95	NM	352.15	NM	352.16	352.56	352.92	353.12	NM
MW-9	Piezometer	Mine Spoil - Pottsville Fm Interface	376.17	376.22	376.2	376.14	NM	376.07	NM	NM	376.13	376.08	376.2	NM
MW-9R	Piezometer	Mine Spoil - Pottsville Fm Interface	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	Downgradient	Pottsville Fm - American Coal Seam	309.53	310.15	309.72	309.51	NM	309.27	NM	308.95	309.08	309.71	310.1	NM
MW-11	Downgradient	Mine Spoil - Pottsville Fm Interface	304.59	303.9	302.76	303.71	NM	303.5	NM	302.92	303.39	304.1	306.13	NM
MW-12	Downgradient	Mine Spoil - Pottsville Fm Interface	319.42	321.11	319.94	318.35	NM	319.22	NM	319.15	319.2	319.32	319.71	NM
MW-12V	Vertical Delineation	Pottsville Fm - Pratt Coal Group	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

- (1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
- (2) ft. AMSL - Feet Above Mean Sea Level
- (3) NM - Not Measured
- (4) Ground surface and top of casing elevations for all on-site compliance wells were resurveyed by a licensed Professional Land Surveyor on April 13, 2023.



Appendix B. Historical Groundwater Elevations Summary
Plant Gorgas Bottom Ash Landfill (BALF)
10/12/2015 - 02/20/2023

Well	Hydraulic Location	Top of Casing Elevation (ft. AMSL)	Groundwater Elevation (ft.AMSL)											
			05/30/17	08/23/17	10/12/17	10/13/17	10/14/17	10/15/17	10/16/17	10/17/17	10/23/17	11/15/17	02/12/18	02/13/18
MW-1	Upgradient	Mine Spoil - Pottsville Fm Interface	410.8	411.06	410.7	410.72	410.68	410.73	410.68	410.65	410.69	410.66	410.89	410.89
MW-2	Upgradient	Mine Spoil - Pottsville Fm Interface	416.94	417.02	416.5	416.54	416.49	416.53	416.5	416.51	416.62	416.74	419.29	419.29
MW-3	Upgradient	Mine Spoil - Pottsville Fm Interface	415.63	415.73	415.1	415.14	415.15	415.17	415.13	415.12	415.17	415.41	418.49	418.49
MW-4	Upgradient	Mine Spoil - Pottsville Fm Interface	401.68	401.77	400.79	400.76	400.67	400.67	400.59	400.62	400.54	400.6	402.67	402.67
MW-7	Downgradient	Mine Spoil - Pottsville Fm Interface	334.24	335.75	334.36	334.53	334.45	334.45	334.42	334.41	NM	334.14	336.82	NM
MW-8	Downgradient	Mine Spoil - Pottsville Fm Interface	353.12	353.29	353.39	353.32	353.31	353.4	353.34	353.31	NM	353.3	353.44	NM
MW-9	Piezometer	Mine Spoil - Pottsville Fm Interface	376.05	---	---	---	---	---	---	---	---	---	---	---
MW-9R	Piezometer	Mine Spoil - Pottsville Fm Interface	---	372.94	NM	NM	NM	NM	NM	NM	NM	372.96	NM	NM
MW-10	Downgradient	Pottsville Fm - American Coal Seam	309.77	310	309.79	309.78	309.75	309.75	309.74	309.72	NM	309.73	310.54	NM
MW-11	Downgradient	Mine Spoil - Pottsville Fm Interface	305.04	306.62	307.31	307.23	307.18	307.22	307.29	307.2	NM	308.71	310.49	NM
MW-12	Downgradient	Mine Spoil - Pottsville Fm Interface	319.35	319.26	319.32	319.32	319.25	319.25	319.26	319.26	NM	319.28	319.49	NM
MW-12V	Vertical Delineation	Pottsville Fm - Pratt Coal Group	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

- (1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
- (2) ft. AMSL - Feet Above Mean Sea Level
- (3) NM - Not Measured
- (4) Ground surface and top of casing elevations for all on-site compliance wells were resurveyed by a licensed Professional Land Surveyor on April 13, 2023.

Appendix B. Historical Groundwater Elevations Summary
Plant Gorgas Bottom Ash Landfill (BALF)
10/12/2015 - 02/20/2023

Well	Hydraulic Location	Top of Casing Elevation (ft. AMSL)	Groundwater Elevation (ft.AMSL)											
			04/09/18	05/21/18	06/11/18	10/17/18	10/29/18	11/19/18	03/13/19	04/10/19	05/13/19	10/07/19	10/14/19	04/06/20
MW-1	Upgradient	Mine Spoil - Pottsville Fm Interface	411.35	411.47	411.28	410.65	410.62	410.8	412.11	411.95	411.77	410.79	410.72	412.16
MW-2	Upgradient	Mine Spoil - Pottsville Fm Interface	417.32	417.33	417.03	416.39	416.3	417.67	417.7	421.15	417.64	416.63	416.62	417.81
MW-3	Upgradient	Mine Spoil - Pottsville Fm Interface	416.25	416.28	415.77	414.92	414.85	416.31	418.31	416.4	415.17	415.14	417.64	417.41
MW-4	Upgradient	Mine Spoil - Pottsville Fm Interface	402.22	402.24	402.01	400.3	400.18	402.08	402.68	402.86	402.43	400.33	400.33	402.59
MW-7	Downgradient	Mine Spoil - Pottsville Fm Interface	335.68	336.6	NM	NM	334.01	337.61	339.54	NM	338.44	334.13	NM	338.34
MW-8	Downgradient	Mine Spoil - Pottsville Fm Interface	353.5	353.55	NM	NM	353.08	353.37	353.47	NM	353.32	352.22	NM	353.52
MW-9	Piezometer	Mine Spoil - Pottsville Fm Interface	---	---	---	---	---	---	---	---	---	---	---	---
MW-9R	Piezometer	Mine Spoil - Pottsville Fm Interface	NM	NM	NM	NM	NM	NM	NM	NM	373.11	372.99	NM	373.15
MW-10	Downgradient	Pottsville Fm - American Coal Seam	310.12	310.25	NM	NM	309.62	310.39	311.24	310.79	309.6	NM	310.96	NM
MW-11	Downgradient	Mine Spoil - Pottsville Fm Interface	311.06	310.75	NM	NM	308.52	310.79	311.11	309.87	306.74	NM	308.79	NM
MW-12	Downgradient	Mine Spoil - Pottsville Fm Interface	319.56	320.02	NM	NM	318.96	319.45	321.63	NM	320.45	318.9	NM	320.45
MW-12V	Vertical Delineation	Pottsville Fm - Pratt Coal Group	---	---	---	---	---	---	327.31	NM	NM	326.23	NM	328

Notes:

- (1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
- (2) ft. AMSL - Feet Above Mean Sea Level
- (3) NM - Not Measured
- (4) Ground surface and top of casing elevations for all on-site compliance wells were resurveyed by a licensed Professional Land Surveyor on April 13, 2023.

**Appendix B. Historical Groundwater Elevations Summary
Plant Gorgas Bottom Ash Landfill (BALF)
10/12/2015 - 02/20/2023**

Well	Hydraulic Location	Top of Casing Elevation (ft. AMSL)	Groundwater Elevation (ft.AMSL)							
			07/13/20	08/03/20	02/22/21	07/12/21	01/24/22	07/05/22	02/20/23	08/15/23
MW-1	Upgradient	Mine Spoil - Pottsville Fm Interface	411.22	412.19	411.59	411.54	411.49	411.39	412.18	411.51
MW-2	Upgradient	Mine Spoil - Pottsville Fm Interface	416.93	417.1	418.5	417.75	418.4	417.74	419.04	417.63
MW-3	Upgradient	Mine Spoil - Pottsville Fm Interface	415.34	419.94	421.54	415.49	418.99	416.02	419.16	416.03
MW-4	Upgradient	Mine Spoil - Pottsville Fm Interface	401.42	402.82	402.3	401.37	402.52	401.99	402.34	401.27
MW-7	Downgradient	Mine Spoil - Pottsville Fm Interface	335.86	NM	338.01	336.47	337.16	334.16	337.65	335.67
MW-8	Downgradient	Mine Spoil - Pottsville Fm Interface	353.04	NM	352.81	352.61	352.56	352.29	352.44	351.53
MW-9	Piezometer	Mine Spoil - Pottsville Fm Interface	---	---	---	---	---	---	---	---
MW-9R	Piezometer	Mine Spoil - Pottsville Fm Interface	373.04	NM	373.15	373.13	373.13	373.08	373.29	373.09
MW-10	Downgradient	Pottsville Fm - American Coal Seam	309.95	310.72	310.21	NM	309.99	308.67	309.05	307.82
MW-11	Downgradient	Mine Spoil - Pottsville Fm Interface	306.56	NM	307.39	305.03	305.57	303.19	305.12	301.49
MW-12	Downgradient	Mine Spoil - Pottsville Fm Interface	319.34	NM	319.66	319.41	319.48	319.17	319.91	318.72
MW-12V	Vertical Delineation	Pottsville Fm - Pratt Coal Group	326.53	NM	326.61	325.92	325.23	324.29	325.14	323.69

Notes:

- (1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
- (2) ft. AMSL - Feet Above Mean Sea Level
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- (4) Ground surface and top of casing elevations for all on-site compliance wells were resurveyed by a licensed Professional Land Surveyor on April 13, 2023.

Appendix C

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 Pooled Upgradient Wells

2023 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).

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) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative



Plant Gorgas Landfill

2023 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).

Rainy conditions were present when pumping and sampling wells MW-17R, MW-18, and MW-19..

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.

Plant Gorgas CCB Landfills
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB-MW-1	COND	Conductivity	2/20/23 11:27	2307.56	uS/cm
APCO-GS-CCB-MW-1	DO	DO	2/20/23 11:27	1.16	mg/L
APCO-GS-CCB-MW-1	DTW	Depth to Water Detail	2/20/23 11:27	92.88	ft
APCO-GS-CCB-MW-1	ORP	Oxidation Reduction Potention	2/20/23 11:27	317.83	mv
APCO-GS-CCB-MW-1	PH	pH	2/20/23 11:27	5.04	SU
APCO-GS-CCB-MW-1	TEMP	Temperature	2/20/23 11:27	19.45	C
APCO-GS-CCB-MW-1	TURB	Turbidity	2/20/23 11:27	0.66	NTU
APCO-GS-CCB-MW-1	COND	Conductivity	2/20/23 11:32	2301.7	uS/cm
APCO-GS-CCB-MW-1	DO	DO	2/20/23 11:32	1.19	mg/L
APCO-GS-CCB-MW-1	DTW	Depth to Water Detail	2/20/23 11:32	92.9	ft
APCO-GS-CCB-MW-1	ORP	Oxidation Reduction Potention	2/20/23 11:32	338.68	mv
APCO-GS-CCB-MW-1	PH	pH	2/20/23 11:32	5.05	SU
APCO-GS-CCB-MW-1	TEMP	Temperature	2/20/23 11:32	19.57	C
APCO-GS-CCB-MW-1	TURB	Turbidity	2/20/23 11:32	0.59	NTU
APCO-GS-CCB-MW-1	COND	Conductivity	2/20/23 11:37	2295.88	uS/cm
APCO-GS-CCB-MW-1	DO	DO	2/20/23 11:37	1.02	mg/L
APCO-GS-CCB-MW-1	DTW	Depth to Water Detail	2/20/23 11:37	92.92	ft
APCO-GS-CCB-MW-1	ORP	Oxidation Reduction Potention	2/20/23 11:37	348.93	mv
APCO-GS-CCB-MW-1	PH	pH	2/20/23 11:37	5.07	SU
APCO-GS-CCB-MW-1	TEMP	Temperature	2/20/23 11:37	19.63	C
APCO-GS-CCB-MW-1	TURB	Turbidity	2/20/23 11:37	0.69	NTU
APCO-GS-CCB-MW-1	COND	Conductivity	2/20/23 11:42	2343.61	uS/cm
APCO-GS-CCB-MW-1	DO	DO	2/20/23 11:42	0.97	mg/L
APCO-GS-CCB-MW-1	DTW	Depth to Water Detail	2/20/23 11:42	92.94	ft
APCO-GS-CCB-MW-1	ORP	Oxidation Reduction Potention	2/20/23 11:42	355.62	mv
APCO-GS-CCB-MW-1	PH	pH	2/20/23 11:42	5.08	SU
APCO-GS-CCB-MW-1	TEMP	Temperature	2/20/23 11:42	19.63	C
APCO-GS-CCB-MW-1	TURB	Turbidity	2/20/23 11:42	0.5	NTU
APCO-GS-CCB-MW-1	COND	Conductivity	2/20/23 11:47	2297.01	uS/cm
APCO-GS-CCB-MW-1	DO	DO	2/20/23 11:47	0.95	mg/L
APCO-GS-CCB-MW-1	DTW	Depth to Water Detail	2/20/23 11:47	92.94	ft
APCO-GS-CCB-MW-1	ORP	Oxidation Reduction Potention	2/20/23 11:47	361.14	mv
APCO-GS-CCB-MW-1	PH	pH	2/20/23 11:47	5.07	SU
APCO-GS-CCB-MW-1	SULFIDE	Sulfide	2/20/23 11:47	0	mg/L
APCO-GS-CCB-MW-1	TEMP	Temperature	2/20/23 11:47	19.59	C
APCO-GS-CCB-MW-1	TURB	Turbidity	2/20/23 11:47	0.73	NTU
APCO-GS-CCB-MW-2	COND	Conductivity	2/20/23 13:18	1774.73	uS/cm
APCO-GS-CCB-MW-2	DO	DO	2/20/23 13:18	0.85	mg/L
APCO-GS-CCB-MW-2	DTW	Depth to Water Detail	2/20/23 13:18	83.43	ft
APCO-GS-CCB-MW-2	ORP	Oxidation Reduction Potention	2/20/23 13:18	71.78	mv
APCO-GS-CCB-MW-2	PH	pH	2/20/23 13:18	6.22	SU
APCO-GS-CCB-MW-2	TEMP	Temperature	2/20/23 13:18	19	C
APCO-GS-CCB-MW-2	TURB	Turbidity	2/20/23 13:18	0.72	NTU
APCO-GS-CCB-MW-2	COND	Conductivity	2/20/23 13:23	1773.88	uS/cm
APCO-GS-CCB-MW-2	DO	DO	2/20/23 13:23	0.85	mg/L
APCO-GS-CCB-MW-2	DTW	Depth to Water Detail	2/20/23 13:23	83.43	ft
APCO-GS-CCB-MW-2	ORP	Oxidation Reduction Potention	2/20/23 13:23	71.83	mv
APCO-GS-CCB-MW-2	PH	pH	2/20/23 13:23	6.23	SU
APCO-GS-CCB-MW-2	TEMP	Temperature	2/20/23 13:23	19	C
APCO-GS-CCB-MW-2	TURB	Turbidity	2/20/23 13:23	0.94	NTU
APCO-GS-CCB-MW-2	COND	Conductivity	2/20/23 13:28	1772.4	uS/cm
APCO-GS-CCB-MW-2	DO	DO	2/20/23 13:28	0.83	mg/L
APCO-GS-CCB-MW-2	DTW	Depth to Water Detail	2/20/23 13:28	83.43	ft
APCO-GS-CCB-MW-2	ORP	Oxidation Reduction Potention	2/20/23 13:28	72.2	mv
APCO-GS-CCB-MW-2	PH	pH	2/20/23 13:28	6.24	SU
APCO-GS-CCB-MW-2	TEMP	Temperature	2/20/23 13:28	18.98	C
APCO-GS-CCB-MW-2	TURB	Turbidity	2/20/23 13:28	0.47	NTU
APCO-GS-CCB-MW-2	COND	Conductivity	2/20/23 13:33	1773	uS/cm
APCO-GS-CCB-MW-2	DO	DO	2/20/23 13:33	0.82	mg/L
APCO-GS-CCB-MW-2	DTW	Depth to Water Detail	2/20/23 13:33	83.43	ft
APCO-GS-CCB-MW-2	ORP	Oxidation Reduction Potention	2/20/23 13:33	72.91	mv
APCO-GS-CCB-MW-2	PH	pH	2/20/23 13:33	6.24	SU

Plant Gorgas CCB Landfills
Field Parameter Summary

APCO-GS-CCB-MW-2	SULFIDE	Sulfide	2/20/23 13:33	0	mg/L
APCO-GS-CCB-MW-2	TEMP	Temperature	2/20/23 13:33	18.95	C
APCO-GS-CCB-MW-2	TURB	Turbidity	2/20/23 13:33	0.41	NTU
APCO-GS-CCB-MW-3	COND	Conductivity	2/20/23 14:18	3845.31	uS/cm
APCO-GS-CCB-MW-3	DO	DO	2/20/23 14:18	7.15	mg/L
APCO-GS-CCB-MW-3	DTW	Depth to Water Detail	2/20/23 14:18	107.22	ft
APCO-GS-CCB-MW-3	ORP	Oxidation Reduction Potention	2/20/23 14:18	307.8	mv
APCO-GS-CCB-MW-3	PH	pH	2/20/23 14:18	4.94	SU
APCO-GS-CCB-MW-3	TEMP	Temperature	2/20/23 14:18	20.98	C
APCO-GS-CCB-MW-3	TURB	Turbidity	2/20/23 14:18	3.67	NTU
APCO-GS-CCB-MW-3	COND	Conductivity	2/20/23 14:23	3460.97	uS/cm
APCO-GS-CCB-MW-3	DO	DO	2/20/23 14:23	6.52	mg/L
APCO-GS-CCB-MW-3	DTW	Depth to Water Detail	2/20/23 14:23	107.24	ft
APCO-GS-CCB-MW-3	ORP	Oxidation Reduction Potention	2/20/23 14:23	273.35	mv
APCO-GS-CCB-MW-3	PH	pH	2/20/23 14:23	5.74	SU
APCO-GS-CCB-MW-3	TEMP	Temperature	2/20/23 14:23	20.86	C
APCO-GS-CCB-MW-3	TURB	Turbidity	2/20/23 14:23	12.9	NTU
APCO-GS-CCB-MW-3	COND	Conductivity	2/20/23 14:28	3297.44	uS/cm
APCO-GS-CCB-MW-3	DO	DO	2/20/23 14:28	6.36	mg/L
APCO-GS-CCB-MW-3	DTW	Depth to Water Detail	2/20/23 14:28	107.26	ft
APCO-GS-CCB-MW-3	ORP	Oxidation Reduction Potention	2/20/23 14:28	243.1	mv
APCO-GS-CCB-MW-3	PH	pH	2/20/23 14:28	5.97	SU
APCO-GS-CCB-MW-3	TEMP	Temperature	2/20/23 14:28	20.74	C
APCO-GS-CCB-MW-3	TURB	Turbidity	2/20/23 14:28	11.5	NTU
APCO-GS-CCB-MW-3	COND	Conductivity	2/20/23 14:33	3289.62	uS/cm
APCO-GS-CCB-MW-3	DO	DO	2/20/23 14:33	6.25	mg/L
APCO-GS-CCB-MW-3	DTW	Depth to Water Detail	2/20/23 14:33	107.28	ft
APCO-GS-CCB-MW-3	ORP	Oxidation Reduction Potention	2/20/23 14:33	235.2	mv
APCO-GS-CCB-MW-3	PH	pH	2/20/23 14:33	5.99	SU
APCO-GS-CCB-MW-3	TEMP	Temperature	2/20/23 14:33	20.53	C
APCO-GS-CCB-MW-3	TURB	Turbidity	2/20/23 14:33	7.21	NTU
APCO-GS-CCB-MW-3	COND	Conductivity	2/20/23 14:38	3282.07	uS/cm
APCO-GS-CCB-MW-3	DO	DO	2/20/23 14:38	6.17	mg/L
APCO-GS-CCB-MW-3	DTW	Depth to Water Detail	2/20/23 14:38	107.3	ft
APCO-GS-CCB-MW-3	ORP	Oxidation Reduction Potention	2/20/23 14:38	233.18	mv
APCO-GS-CCB-MW-3	PH	pH	2/20/23 14:38	6	SU
APCO-GS-CCB-MW-3	TEMP	Temperature	2/20/23 14:38	20.41	C
APCO-GS-CCB-MW-3	TURB	Turbidity	2/20/23 14:38	3.72	NTU
APCO-GS-CCB-MW-3	COND	Conductivity	2/20/23 14:43	3280.04	uS/cm
APCO-GS-CCB-MW-3	DO	DO	2/20/23 14:43	6.2	mg/L
APCO-GS-CCB-MW-3	DTW	Depth to Water Detail	2/20/23 14:43	107.32	ft
APCO-GS-CCB-MW-3	ORP	Oxidation Reduction Potention	2/20/23 14:43	232.49	mv
APCO-GS-CCB-MW-3	PH	pH	2/20/23 14:43	6.01	SU
APCO-GS-CCB-MW-3	TEMP	Temperature	2/20/23 14:43	20.36	C
APCO-GS-CCB-MW-3	TURB	Turbidity	2/20/23 14:43	2.34	NTU
APCO-GS-CCB-MW-3	COND	Conductivity	2/20/23 14:48	3276.9	uS/cm
APCO-GS-CCB-MW-3	DO	DO	2/20/23 14:48	6.19	mg/L
APCO-GS-CCB-MW-3	DTW	Depth to Water Detail	2/20/23 14:48	107.33	ft
APCO-GS-CCB-MW-3	ORP	Oxidation Reduction Potention	2/20/23 14:48	231.95	mv
APCO-GS-CCB-MW-3	PH	pH	2/20/23 14:48	6.01	SU
APCO-GS-CCB-MW-3	SULFIDE	Sulfide	2/20/23 14:48	0	mg/L
APCO-GS-CCB-MW-3	TEMP	Temperature	2/20/23 14:48	20.34	C
APCO-GS-CCB-MW-3	TURB	Turbidity	2/20/23 14:48	1.21	NTU
APCO-GS-CCB-MW-4	COND	Conductivity	2/21/23 9:30	3246.86	uS/cm
APCO-GS-CCB-MW-4	DO	DO	2/21/23 9:30	2.8	mg/L
APCO-GS-CCB-MW-4	DTW	Depth to Water Detail	2/21/23 9:30	116.03	ft
APCO-GS-CCB-MW-4	ORP	Oxidation Reduction Potention	2/21/23 9:30	213.78	mv
APCO-GS-CCB-MW-4	PH	pH	2/21/23 9:30	6.33	SU
APCO-GS-CCB-MW-4	TEMP	Temperature	2/21/23 9:30	19.7	C
APCO-GS-CCB-MW-4	TURB	Turbidity	2/21/23 9:30	2.34	NTU
APCO-GS-CCB-MW-4	COND	Conductivity	2/21/23 9:35	3228.3	uS/cm
APCO-GS-CCB-MW-4	DO	DO	2/21/23 9:35	2.79	mg/L
APCO-GS-CCB-MW-4	DTW	Depth to Water Detail	2/21/23 9:35	116.03	ft

Plant Gorgas CCB Landfills
Field Parameter Summary

APCO-GS-CCB-MW-4	ORP	Oxidation Reduction Potention	2/21/23 9:35	214.38	mv
APCO-GS-CCB-MW-4	PH	pH	2/21/23 9:35	6.33	SU
APCO-GS-CCB-MW-4	TEMP	Temperature	2/21/23 9:35	19.65	C
APCO-GS-CCB-MW-4	TURB	Turbidity	2/21/23 9:35	1.59	NTU
APCO-GS-CCB-MW-4	COND	Conductivity	2/21/23 9:40	3207.87	uS/cm
APCO-GS-CCB-MW-4	DO	DO	2/21/23 9:40	2.9	mg/L
APCO-GS-CCB-MW-4	DTW	Depth to Water Detail	2/21/23 9:40	116.03	ft
APCO-GS-CCB-MW-4	ORP	Oxidation Reduction Potention	2/21/23 9:40	215.67	mv
APCO-GS-CCB-MW-4	PH	pH	2/21/23 9:40	6.34	SU
APCO-GS-CCB-MW-4	TEMP	Temperature	2/21/23 9:40	19.6	C
APCO-GS-CCB-MW-4	TURB	Turbidity	2/21/23 9:40	1.25	NTU
APCO-GS-CCB-MW-4	COND	Conductivity	2/21/23 9:45	3197.25	uS/cm
APCO-GS-CCB-MW-4	DO	DO	2/21/23 9:45	3.04	mg/L
APCO-GS-CCB-MW-4	DTW	Depth to Water Detail	2/21/23 9:45	116.03	ft
APCO-GS-CCB-MW-4	ORP	Oxidation Reduction Potention	2/21/23 9:45	216.9	mv
APCO-GS-CCB-MW-4	PH	pH	2/21/23 9:45	6.34	SU
APCO-GS-CCB-MW-4	TEMP	Temperature	2/21/23 9:45	19.59	C
APCO-GS-CCB-MW-4	TURB	Turbidity	2/21/23 9:45	1.22	NTU
APCO-GS-CCB-MW-4	COND	Conductivity	2/21/23 9:50	3189.48	uS/cm
APCO-GS-CCB-MW-4	DO	DO	2/21/23 9:50	3.13	mg/L
APCO-GS-CCB-MW-4	DTW	Depth to Water Detail	2/21/23 9:50	116.03	ft
APCO-GS-CCB-MW-4	ORP	Oxidation Reduction Potention	2/21/23 9:50	217.91	mv
APCO-GS-CCB-MW-4	PH	pH	2/21/23 9:50	6.35	SU
APCO-GS-CCB-MW-4	TEMP	Temperature	2/21/23 9:50	19.6	C
APCO-GS-CCB-MW-4	TURB	Turbidity	2/21/23 9:50	1.2	NTU
APCO-GS-CCB-MW-4	COND	Conductivity	2/21/23 9:55	3184.95	uS/cm
APCO-GS-CCB-MW-4	DO	DO	2/21/23 9:55	3.15	mg/L
APCO-GS-CCB-MW-4	DTW	Depth to Water Detail	2/21/23 9:55	116.03	ft
APCO-GS-CCB-MW-4	ORP	Oxidation Reduction Potention	2/21/23 9:55	219	mv
APCO-GS-CCB-MW-4	PH	pH	2/21/23 9:55	6.35	SU
APCO-GS-CCB-MW-4	SULFIDE	Sulfide	2/21/23 9:55	0	mg/L
APCO-GS-CCB-MW-4	TEMP	Temperature	2/21/23 9:55	19.61	C
APCO-GS-CCB-MW-4	TURB	Turbidity	2/21/23 9:55	0.72	NTU
APCO-GS-CCB-MW-11	COND	Conductivity	2/21/23 14:57	2626.49	uS/cm
APCO-GS-CCB-MW-11	DO	DO	2/21/23 14:57	0.29	mg/L
APCO-GS-CCB-MW-11	DTW	Depth to Water Detail	2/21/23 14:57	106.08	ft
APCO-GS-CCB-MW-11	ORP	Oxidation Reduction Potention	2/21/23 14:57	-52.81	mv
APCO-GS-CCB-MW-11	PH	pH	2/21/23 14:57	6.82	SU
APCO-GS-CCB-MW-11	TEMP	Temperature	2/21/23 14:57	20.33	C
APCO-GS-CCB-MW-11	TURB	Turbidity	2/21/23 14:57	0.97	NTU
APCO-GS-CCB-MW-11	COND	Conductivity	2/21/23 15:02	2616.81	uS/cm
APCO-GS-CCB-MW-11	DO	DO	2/21/23 15:02	0.2	mg/L
APCO-GS-CCB-MW-11	DTW	Depth to Water Detail	2/21/23 15:02	108.7	ft
APCO-GS-CCB-MW-11	ORP	Oxidation Reduction Potention	2/21/23 15:02	-57.73	mv
APCO-GS-CCB-MW-11	PH	pH	2/21/23 15:02	6.8	SU
APCO-GS-CCB-MW-11	TEMP	Temperature	2/21/23 15:02	20.22	C
APCO-GS-CCB-MW-11	TURB	Turbidity	2/21/23 15:02	0.89	NTU
APCO-GS-CCB-MW-11	COND	Conductivity	2/21/23 15:07	2614.17	uS/cm
APCO-GS-CCB-MW-11	DO	DO	2/21/23 15:07	0.19	mg/L
APCO-GS-CCB-MW-11	DTW	Depth to Water Detail	2/21/23 15:07	110.54	ft
APCO-GS-CCB-MW-11	ORP	Oxidation Reduction Potention	2/21/23 15:07	-60.02	mv
APCO-GS-CCB-MW-11	PH	pH	2/21/23 15:07	6.79	SU
APCO-GS-CCB-MW-11	TEMP	Temperature	2/21/23 15:07	20.16	C
APCO-GS-CCB-MW-11	TURB	Turbidity	2/21/23 15:07	0.92	NTU
APCO-GS-CCB-MW-11	COND	Conductivity	2/21/23 15:12	2609.79	uS/cm
APCO-GS-CCB-MW-11	DO	DO	2/21/23 15:12	0.32	mg/L
APCO-GS-CCB-MW-11	DTW	Depth to Water Detail	2/21/23 15:12	110.46	ft
APCO-GS-CCB-MW-11	ORP	Oxidation Reduction Potention	2/21/23 15:12	-61.21	mv
APCO-GS-CCB-MW-11	PH	pH	2/21/23 15:12	6.79	SU
APCO-GS-CCB-MW-11	TEMP	Temperature	2/21/23 15:12	20.15	C
APCO-GS-CCB-MW-11	TURB	Turbidity	2/21/23 15:12	0.78	NTU
APCO-GS-CCB-MW-11	COND	Conductivity	2/21/23 15:17	2605.62	uS/cm
APCO-GS-CCB-MW-11	DO	DO	2/21/23 15:17	0.4	mg/L

Plant Gorgas CCB Landfills
Field Parameter Summary

APCO-GS-CCB-MW-11	DTW	Depth to Water Detail	2/21/23 15:17	110.43	ft
APCO-GS-CCB-MW-11	ORP	Oxidation Reduction Potention	2/21/23 15:17	-61.73	mv
APCO-GS-CCB-MW-11	PH	pH	2/21/23 15:17	6.78	SU
APCO-GS-CCB-MW-11	TEMP	Temperature	2/21/23 15:17	20.19	C
APCO-GS-CCB-MW-11	TURB	Turbidity	2/21/23 15:17	0.84	NTU
APCO-GS-CCB-MW-11	COND	Conductivity	2/21/23 15:22	2597.79	uS/cm
APCO-GS-CCB-MW-11	DO	DO	2/21/23 15:22	0.42	mg/L
APCO-GS-CCB-MW-11	DTW	Depth to Water Detail	2/21/23 15:22	110.43	ft
APCO-GS-CCB-MW-11	ORP	Oxidation Reduction Potention	2/21/23 15:22	-62.9	mv
APCO-GS-CCB-MW-11	PH	pH	2/21/23 15:22	6.77	SU
APCO-GS-CCB-MW-11	SULFIDE	Sulfide	2/21/23 15:22	0	mg/L
APCO-GS-CCB-MW-11	TEMP	Temperature	2/21/23 15:22	20.11	C
APCO-GS-CCB-MW-11	TURB	Turbidity	2/21/23 15:22	0.8	NTU
APCO-GS-CCB-MW-12	COND	Conductivity	2/22/23 13:29	3451.82	uS/cm
APCO-GS-CCB-MW-12	DO	DO	2/22/23 13:29	1.25	mg/L
APCO-GS-CCB-MW-12	DTW	Depth to Water Detail	2/22/23 13:29	154.72	ft
APCO-GS-CCB-MW-12	ORP	Oxidation Reduction Potention	2/22/23 13:29	20.37	mv
APCO-GS-CCB-MW-12	PH	pH	2/22/23 13:29	5.66	SU
APCO-GS-CCB-MW-12	TEMP	Temperature	2/22/23 13:29	22.35	C
APCO-GS-CCB-MW-12	TURB	Turbidity	2/22/23 13:29	5.21	NTU
APCO-GS-CCB-MW-12	COND	Conductivity	2/22/23 13:34	3511.79	uS/cm
APCO-GS-CCB-MW-12	DO	DO	2/22/23 13:34	0.41	mg/L
APCO-GS-CCB-MW-12	DTW	Depth to Water Detail	2/22/23 13:34	154.72	ft
APCO-GS-CCB-MW-12	ORP	Oxidation Reduction Potention	2/22/23 13:34	10.43	mv
APCO-GS-CCB-MW-12	PH	pH	2/22/23 13:34	5.69	SU
APCO-GS-CCB-MW-12	TEMP	Temperature	2/22/23 13:34	22.29	C
APCO-GS-CCB-MW-12	TURB	Turbidity	2/22/23 13:34	4.38	NTU
APCO-GS-CCB-MW-12	COND	Conductivity	2/22/23 13:39	3553.77	uS/cm
APCO-GS-CCB-MW-12	DO	DO	2/22/23 13:39	0.3	mg/L
APCO-GS-CCB-MW-12	DTW	Depth to Water Detail	2/22/23 13:39	154.72	ft
APCO-GS-CCB-MW-12	ORP	Oxidation Reduction Potention	2/22/23 13:39	8.27	mv
APCO-GS-CCB-MW-12	PH	pH	2/22/23 13:39	5.7	SU
APCO-GS-CCB-MW-12	TEMP	Temperature	2/22/23 13:39	22.33	C
APCO-GS-CCB-MW-12	TURB	Turbidity	2/22/23 13:39	3.95	NTU
APCO-GS-CCB-MW-12	COND	Conductivity	2/22/23 13:44	3585.09	uS/cm
APCO-GS-CCB-MW-12	DO	DO	2/22/23 13:44	0.28	mg/L
APCO-GS-CCB-MW-12	DTW	Depth to Water Detail	2/22/23 13:44	154.72	ft
APCO-GS-CCB-MW-12	ORP	Oxidation Reduction Potention	2/22/23 13:44	7.95	mv
APCO-GS-CCB-MW-12	PH	pH	2/22/23 13:44	5.72	SU
APCO-GS-CCB-MW-12	SULFIDE	Sulfide	2/22/23 13:44	0	mg/L
APCO-GS-CCB-MW-12	TEMP	Temperature	2/22/23 13:44	21.83	C
APCO-GS-CCB-MW-12	TURB	Turbidity	2/22/23 13:44	3.81	NTU
APCO-GS-CCB-MW-12V	COND	Conductivity	2/22/23 12:12	2659.72	uS/cm
APCO-GS-CCB-MW-12V	DO	DO	2/22/23 12:12	0.75	mg/L
APCO-GS-CCB-MW-12V	DTW	Depth to Water Detail	2/22/23 12:12	157.4	ft
APCO-GS-CCB-MW-12V	ORP	Oxidation Reduction Potention	2/22/23 12:12	-100.06	mv
APCO-GS-CCB-MW-12V	PH	pH	2/22/23 12:12	6.95	SU
APCO-GS-CCB-MW-12V	TEMP	Temperature	2/22/23 12:12	22.89	C
APCO-GS-CCB-MW-12V	TURB	Turbidity	2/22/23 12:12	3.08	NTU
APCO-GS-CCB-MW-12V	COND	Conductivity	2/22/23 12:17	2670.85	uS/cm
APCO-GS-CCB-MW-12V	DO	DO	2/22/23 12:17	0.47	mg/L
APCO-GS-CCB-MW-12V	DTW	Depth to Water Detail	2/22/23 12:17	157.76	ft
APCO-GS-CCB-MW-12V	ORP	Oxidation Reduction Potention	2/22/23 12:17	-98.12	mv
APCO-GS-CCB-MW-12V	PH	pH	2/22/23 12:17	6.95	SU
APCO-GS-CCB-MW-12V	TEMP	Temperature	2/22/23 12:17	22.75	C
APCO-GS-CCB-MW-12V	TURB	Turbidity	2/22/23 12:17	2.21	NTU
APCO-GS-CCB-MW-12V	COND	Conductivity	2/22/23 12:22	2672.06	uS/cm
APCO-GS-CCB-MW-12V	DO	DO	2/22/23 12:22	0.41	mg/L
APCO-GS-CCB-MW-12V	DTW	Depth to Water Detail	2/22/23 12:22	158	ft
APCO-GS-CCB-MW-12V	ORP	Oxidation Reduction Potention	2/22/23 12:22	-96.03	mv
APCO-GS-CCB-MW-12V	PH	pH	2/22/23 12:22	6.95	SU
APCO-GS-CCB-MW-12V	TEMP	Temperature	2/22/23 12:22	22.59	C
APCO-GS-CCB-MW-12V	TURB	Turbidity	2/22/23 12:22	2.43	NTU

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APCO-GS-CCB-MW-12V	COND	Conductivity	2/22/23 12:27	2674.21	uS/cm
APCO-GS-CCB-MW-12V	DO	DO	2/22/23 12:27	0.41	mg/L
APCO-GS-CCB-MW-12V	DTW	Depth to Water Detail	2/22/23 12:27	158.11	ft
APCO-GS-CCB-MW-12V	ORP	Oxidation Reduction Potention	2/22/23 12:27	-94.08	mv
APCO-GS-CCB-MW-12V	PH	pH	2/22/23 12:27	6.95	SU
APCO-GS-CCB-MW-12V	TEMP	Temperature	2/22/23 12:27	22.71	C
APCO-GS-CCB-MW-12V	TURB	Turbidity	2/22/23 12:27	1.91	NTU
APCO-GS-CCB-MW-12V	COND	Conductivity	2/22/23 12:32	2671.7	uS/cm
APCO-GS-CCB-MW-12V	DO	DO	2/22/23 12:32	0.45	mg/L
APCO-GS-CCB-MW-12V	DTW	Depth to Water Detail	2/22/23 12:32	158.2	ft
APCO-GS-CCB-MW-12V	ORP	Oxidation Reduction Potention	2/22/23 12:32	-92.09	mv
APCO-GS-CCB-MW-12V	PH	pH	2/22/23 12:32	6.95	SU
APCO-GS-CCB-MW-12V	SULFIDE	Sulfide	2/22/23 12:32	0	mg/L
APCO-GS-CCB-MW-12V	TEMP	Temperature	2/22/23 12:32	22.78	C
APCO-GS-CCB-MW-12V	TURB	Turbidity	2/22/23 12:32	1.96	NTU
APCO-GS-CCB-MW-13	COND	Conductivity	2/20/23 10:44	2336.35	uS/cm
APCO-GS-CCB-MW-13	DO	DO	2/20/23 10:44	0.97	mg/L
APCO-GS-CCB-MW-13	DTW	Depth to Water Detail	2/20/23 10:44	94.13	ft
APCO-GS-CCB-MW-13	ORP	Oxidation Reduction Potention	2/20/23 10:44	84.75	mv
APCO-GS-CCB-MW-13	PH	pH	2/20/23 10:44	6.46	SU
APCO-GS-CCB-MW-13	TEMP	Temperature	2/20/23 10:44	19.01	C
APCO-GS-CCB-MW-13	TURB	Turbidity	2/20/23 10:44	1.98	NTU
APCO-GS-CCB-MW-13	COND	Conductivity	2/20/23 10:49	2238.28	uS/cm
APCO-GS-CCB-MW-13	DO	DO	2/20/23 10:49	0.49	mg/L
APCO-GS-CCB-MW-13	DTW	Depth to Water Detail	2/20/23 10:49	94.24	ft
APCO-GS-CCB-MW-13	ORP	Oxidation Reduction Potention	2/20/23 10:49	90.52	mv
APCO-GS-CCB-MW-13	PH	pH	2/20/23 10:49	6.56	SU
APCO-GS-CCB-MW-13	TEMP	Temperature	2/20/23 10:49	19.04	C
APCO-GS-CCB-MW-13	TURB	Turbidity	2/20/23 10:49	1.56	NTU
APCO-GS-CCB-MW-13	COND	Conductivity	2/20/23 10:54	2218.64	uS/cm
APCO-GS-CCB-MW-13	DO	DO	2/20/23 10:54	0.56	mg/L
APCO-GS-CCB-MW-13	DTW	Depth to Water Detail	2/20/23 10:54	94.28	ft
APCO-GS-CCB-MW-13	ORP	Oxidation Reduction Potention	2/20/23 10:54	92.25	mv
APCO-GS-CCB-MW-13	PH	pH	2/20/23 10:54	6.57	SU
APCO-GS-CCB-MW-13	TEMP	Temperature	2/20/23 10:54	19.05	C
APCO-GS-CCB-MW-13	TURB	Turbidity	2/20/23 10:54	1.63	NTU
APCO-GS-CCB-MW-13	COND	Conductivity	2/20/23 10:59	2211.86	uS/cm
APCO-GS-CCB-MW-13	DO	DO	2/20/23 10:59	0.57	mg/L
APCO-GS-CCB-MW-13	DTW	Depth to Water Detail	2/20/23 10:59	94.32	ft
APCO-GS-CCB-MW-13	ORP	Oxidation Reduction Potention	2/20/23 10:59	89.49	mv
APCO-GS-CCB-MW-13	PH	pH	2/20/23 10:59	6.58	SU
APCO-GS-CCB-MW-13	SULFIDE	Sulfide	2/20/23 10:59	0	mg/L
APCO-GS-CCB-MW-13	TEMP	Temperature	2/20/23 10:59	18.98	C
APCO-GS-CCB-MW-13	TURB	Turbidity	2/20/23 10:59	1.6	NTU
APCO-GS-CCB-MW-14	COND	Conductivity	2/20/23 11:44	2873.68	uS/cm
APCO-GS-CCB-MW-14	DO	DO	2/20/23 11:44	0.24	mg/L
APCO-GS-CCB-MW-14	DTW	Depth to Water Detail	2/20/23 11:44	89.16	ft
APCO-GS-CCB-MW-14	ORP	Oxidation Reduction Potention	2/20/23 11:44	25.26	mv
APCO-GS-CCB-MW-14	PH	pH	2/20/23 11:44	6.44	SU
APCO-GS-CCB-MW-14	TEMP	Temperature	2/20/23 11:44	19.07	C
APCO-GS-CCB-MW-14	TURB	Turbidity	2/20/23 11:44	3.88	NTU
APCO-GS-CCB-MW-14	COND	Conductivity	2/20/23 11:49	2873.44	uS/cm
APCO-GS-CCB-MW-14	DO	DO	2/20/23 11:49	0.18	mg/L
APCO-GS-CCB-MW-14	DTW	Depth to Water Detail	2/20/23 11:49	89.16	ft
APCO-GS-CCB-MW-14	ORP	Oxidation Reduction Potention	2/20/23 11:49	11.9	mv
APCO-GS-CCB-MW-14	PH	pH	2/20/23 11:49	6.44	SU
APCO-GS-CCB-MW-14	TEMP	Temperature	2/20/23 11:49	18.96	C
APCO-GS-CCB-MW-14	TURB	Turbidity	2/20/23 11:49	4.51	NTU
APCO-GS-CCB-MW-14	COND	Conductivity	2/20/23 11:54	2855.22	uS/cm
APCO-GS-CCB-MW-14	DO	DO	2/20/23 11:54	0.18	mg/L
APCO-GS-CCB-MW-14	DTW	Depth to Water Detail	2/20/23 11:54	89.16	ft
APCO-GS-CCB-MW-14	ORP	Oxidation Reduction Potention	2/20/23 11:54	7.65	mv
APCO-GS-CCB-MW-14	PH	pH	2/20/23 11:54	6.44	SU

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APCO-GS-CCB-MW-14	TEMP	Temperature	2/20/23 11:54	18.95	C
APCO-GS-CCB-MW-14	TURB	Turbidity	2/20/23 11:54	2.69	NTU
APCO-GS-CCB-MW-14	COND	Conductivity	2/20/23 11:59	2825.5	uS/cm
APCO-GS-CCB-MW-14	DO	DO	2/20/23 11:59	0.21	mg/L
APCO-GS-CCB-MW-14	DTW	Depth to Water Detail	2/20/23 11:59	89.16	ft
APCO-GS-CCB-MW-14	ORP	Oxidation Reduction Potention	2/20/23 11:59	6.39	mv
APCO-GS-CCB-MW-14	PH	pH	2/20/23 11:59	6.45	SU
APCO-GS-CCB-MW-14	SULFIDE	Sulfide	2/20/23 11:59	0	mg/L
APCO-GS-CCB-MW-14	TEMP	Temperature	2/20/23 11:59	19.03	C
APCO-GS-CCB-MW-14	TURB	Turbidity	2/20/23 11:59	2.26	NTU
APCO-GS-CCB-MW-15	COND	Conductivity	2/20/23 12:54	2401.92	uS/cm
APCO-GS-CCB-MW-15	DO	DO	2/20/23 12:54	0.26	mg/L
APCO-GS-CCB-MW-15	DTW	Depth to Water Detail	2/20/23 12:54	67.96	ft
APCO-GS-CCB-MW-15	ORP	Oxidation Reduction Potention	2/20/23 12:54	9.58	mv
APCO-GS-CCB-MW-15	PH	pH	2/20/23 12:54	6.01	SU
APCO-GS-CCB-MW-15	TEMP	Temperature	2/20/23 12:54	18.84	C
APCO-GS-CCB-MW-15	TURB	Turbidity	2/20/23 12:54	16.6	NTU
APCO-GS-CCB-MW-15	COND	Conductivity	2/20/23 12:59	2387.86	uS/cm
APCO-GS-CCB-MW-15	DO	DO	2/20/23 12:59	1.01	mg/L
APCO-GS-CCB-MW-15	DTW	Depth to Water Detail	2/20/23 12:59	67.96	ft
APCO-GS-CCB-MW-15	ORP	Oxidation Reduction Potention	2/20/23 12:59	19.62	mv
APCO-GS-CCB-MW-15	PH	pH	2/20/23 12:59	5.99	SU
APCO-GS-CCB-MW-15	TEMP	Temperature	2/20/23 12:59	18.94	C
APCO-GS-CCB-MW-15	TURB	Turbidity	2/20/23 12:59	11.2	NTU
APCO-GS-CCB-MW-15	COND	Conductivity	2/20/23 13:04	2388.07	uS/cm
APCO-GS-CCB-MW-15	DO	DO	2/20/23 13:04	0.46	mg/L
APCO-GS-CCB-MW-15	DTW	Depth to Water Detail	2/20/23 13:04	67.96	ft
APCO-GS-CCB-MW-15	ORP	Oxidation Reduction Potention	2/20/23 13:04	8.84	mv
APCO-GS-CCB-MW-15	PH	pH	2/20/23 13:04	6.04	SU
APCO-GS-CCB-MW-15	TEMP	Temperature	2/20/23 13:04	18.89	C
APCO-GS-CCB-MW-15	TURB	Turbidity	2/20/23 13:04	7.21	NTU
APCO-GS-CCB-MW-15	COND	Conductivity	2/20/23 13:09	2387.01	uS/cm
APCO-GS-CCB-MW-15	DO	DO	2/20/23 13:09	0.2	mg/L
APCO-GS-CCB-MW-15	DTW	Depth to Water Detail	2/20/23 13:09	67.96	ft
APCO-GS-CCB-MW-15	ORP	Oxidation Reduction Potention	2/20/23 13:09	3.52	mv
APCO-GS-CCB-MW-15	PH	pH	2/20/23 13:09	6.06	SU
APCO-GS-CCB-MW-15	TEMP	Temperature	2/20/23 13:09	18.86	C
APCO-GS-CCB-MW-15	TURB	Turbidity	2/20/23 13:09	6.32	NTU
APCO-GS-CCB-MW-15	COND	Conductivity	2/20/23 13:14	2389.42	uS/cm
APCO-GS-CCB-MW-15	DO	DO	2/20/23 13:14	0.15	mg/L
APCO-GS-CCB-MW-15	DTW	Depth to Water Detail	2/20/23 13:14	67.96	ft
APCO-GS-CCB-MW-15	ORP	Oxidation Reduction Potention	2/20/23 13:14	0.89	mv
APCO-GS-CCB-MW-15	PH	pH	2/20/23 13:14	6.08	SU
APCO-GS-CCB-MW-15	SULFIDE	Sulfide	2/20/23 13:14	0	mg/L
APCO-GS-CCB-MW-15	TEMP	Temperature	2/20/23 13:14	18.93	C
APCO-GS-CCB-MW-15	TURB	Turbidity	2/20/23 13:14	4.88	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:03	2660.46	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:03	0.55	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:03	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:03	-16.82	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:03	6.47	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:03	19.8	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:03	3.29	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:08	2654.16	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:08	0.5	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:08	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:08	-15.21	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:08	6.48	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:08	19.75	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:08	2.98	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:13	2641.99	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:13	0.45	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:13	90.02	ft

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APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:13	-15.96	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:13	6.5	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:13	19.74	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:13	3.12	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:18	2630.76	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:18	0.49	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:18	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:18	-15.21	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:18	6.51	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:18	19.74	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:18	2.49	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:23	2620.89	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:23	0.56	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:23	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:23	-14.46	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:23	6.52	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:23	19.7	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:23	2.28	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:28	2615.24	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:28	0.49	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:28	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:28	-14.17	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:28	6.53	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:28	19.64	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:28	3.36	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:33	2608.55	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:33	0.55	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:33	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:33	-13.4	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:33	6.53	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:33	19.65	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:33	4.33	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:38	2599.95	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:38	0.53	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:38	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:38	-13.14	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:38	6.53	SU
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:38	19.66	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:38	1.28	NTU
APCO-GS-CCB-MW-16	COND	Conductivity	2/20/23 14:43	2593.82	uS/cm
APCO-GS-CCB-MW-16	DO	DO	2/20/23 14:43	0.47	mg/L
APCO-GS-CCB-MW-16	DTW	Depth to Water Detail	2/20/23 14:43	90.02	ft
APCO-GS-CCB-MW-16	ORP	Oxidation Reduction Potention	2/20/23 14:43	-13.21	mv
APCO-GS-CCB-MW-16	PH	pH	2/20/23 14:43	6.53	SU
APCO-GS-CCB-MW-16	SULFIDE	Sulfide	2/20/23 14:43	0	mg/L
APCO-GS-CCB-MW-16	TEMP	Temperature	2/20/23 14:43	19.63	C
APCO-GS-CCB-MW-16	TURB	Turbidity	2/20/23 14:43	1.66	NTU
APCO-GS-CCB-MW-17R	COND	Conductivity	2/21/23 10:20	3641.2	uS/cm
APCO-GS-CCB-MW-17R	DO	DO	2/21/23 10:20	0.46	mg/L
APCO-GS-CCB-MW-17R	DTW	Depth to Water Detail	2/21/23 10:20	126.16	ft
APCO-GS-CCB-MW-17R	ORP	Oxidation Reduction Potention	2/21/23 10:20	16.98	mv
APCO-GS-CCB-MW-17R	PH	pH	2/21/23 10:20	5.91	SU
APCO-GS-CCB-MW-17R	TEMP	Temperature	2/21/23 10:20	20.44	C
APCO-GS-CCB-MW-17R	TURB	Turbidity	2/21/23 10:20	2.96	NTU
APCO-GS-CCB-MW-17R	COND	Conductivity	2/21/23 10:25	3630.96	uS/cm
APCO-GS-CCB-MW-17R	DO	DO	2/21/23 10:25	0.28	mg/L
APCO-GS-CCB-MW-17R	DTW	Depth to Water Detail	2/21/23 10:25	126.2	ft
APCO-GS-CCB-MW-17R	ORP	Oxidation Reduction Potention	2/21/23 10:25	14.44	mv
APCO-GS-CCB-MW-17R	PH	pH	2/21/23 10:25	5.98	SU
APCO-GS-CCB-MW-17R	TEMP	Temperature	2/21/23 10:25	20.47	C
APCO-GS-CCB-MW-17R	TURB	Turbidity	2/21/23 10:25	2.1	NTU
APCO-GS-CCB-MW-17R	COND	Conductivity	2/21/23 10:30	3610.53	uS/cm
APCO-GS-CCB-MW-17R	DO	DO	2/21/23 10:30	0.24	mg/L

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APCO-GS-CCB-MW-17R	DTW	Depth to Water Detail	2/21/23 10:30	126.23	ft
APCO-GS-CCB-MW-17R	ORP	Oxidation Reduction Potention	2/21/23 10:30	9.58	mv
APCO-GS-CCB-MW-17R	PH	pH	2/21/23 10:30	6.04	SU
APCO-GS-CCB-MW-17R	TEMP	Temperature	2/21/23 10:30	20.45	C
APCO-GS-CCB-MW-17R	TURB	Turbidity	2/21/23 10:30	1.84	NTU
APCO-GS-CCB-MW-17R	COND	Conductivity	2/21/23 10:35	3602.75	uS/cm
APCO-GS-CCB-MW-17R	DO	DO	2/21/23 10:35	0.23	mg/L
APCO-GS-CCB-MW-17R	DTW	Depth to Water Detail	2/21/23 10:35	126.25	ft
APCO-GS-CCB-MW-17R	ORP	Oxidation Reduction Potention	2/21/23 10:35	8.15	mv
APCO-GS-CCB-MW-17R	PH	pH	2/21/23 10:35	6.07	SU
APCO-GS-CCB-MW-17R	SULFIDE	Sulfide	2/21/23 10:35	0	mg/L
APCO-GS-CCB-MW-17R	TEMP	Temperature	2/21/23 10:35	20.41	C
APCO-GS-CCB-MW-17R	TURB	Turbidity	2/21/23 10:35	1.8	NTU
APCO-GS-CCB-MW-18	COND	Conductivity	2/21/23 11:22	2624.62	uS/cm
APCO-GS-CCB-MW-18	DO	DO	2/21/23 11:22	4.24	mg/L
APCO-GS-CCB-MW-18	DTW	Depth to Water Detail	2/21/23 11:22	110.98	ft
APCO-GS-CCB-MW-18	ORP	Oxidation Reduction Potention	2/21/23 11:22	96.23	mv
APCO-GS-CCB-MW-18	PH	pH	2/21/23 11:22	6.63	SU
APCO-GS-CCB-MW-18	TEMP	Temperature	2/21/23 11:22	19.73	C
APCO-GS-CCB-MW-18	TURB	Turbidity	2/21/23 11:22	1.43	NTU
APCO-GS-CCB-MW-18	COND	Conductivity	2/21/23 11:27	2622.66	uS/cm
APCO-GS-CCB-MW-18	DO	DO	2/21/23 11:27	4.23	mg/L
APCO-GS-CCB-MW-18	DTW	Depth to Water Detail	2/21/23 11:27	110.98	ft
APCO-GS-CCB-MW-18	ORP	Oxidation Reduction Potention	2/21/23 11:27	107.58	mv
APCO-GS-CCB-MW-18	PH	pH	2/21/23 11:27	6.63	SU
APCO-GS-CCB-MW-18	TEMP	Temperature	2/21/23 11:27	19.73	C
APCO-GS-CCB-MW-18	TURB	Turbidity	2/21/23 11:27	1.11	NTU
APCO-GS-CCB-MW-18	COND	Conductivity	2/21/23 11:32	2625.28	uS/cm
APCO-GS-CCB-MW-18	DO	DO	2/21/23 11:32	4.22	mg/L
APCO-GS-CCB-MW-18	DTW	Depth to Water Detail	2/21/23 11:32	110.98	ft
APCO-GS-CCB-MW-18	ORP	Oxidation Reduction Potention	2/21/23 11:32	115.31	mv
APCO-GS-CCB-MW-18	PH	pH	2/21/23 11:32	6.63	SU
APCO-GS-CCB-MW-18	TEMP	Temperature	2/21/23 11:32	19.74	C
APCO-GS-CCB-MW-18	TURB	Turbidity	2/21/23 11:32	0.91	NTU
APCO-GS-CCB-MW-18	COND	Conductivity	2/21/23 11:37	2625.69	uS/cm
APCO-GS-CCB-MW-18	DO	DO	2/21/23 11:37	4.21	mg/L
APCO-GS-CCB-MW-18	DTW	Depth to Water Detail	2/21/23 11:37	110.98	ft
APCO-GS-CCB-MW-18	ORP	Oxidation Reduction Potention	2/21/23 11:37	121.11	mv
APCO-GS-CCB-MW-18	PH	pH	2/21/23 11:37	6.63	SU
APCO-GS-CCB-MW-18	SULFIDE	Sulfide	2/21/23 11:37	0	mg/L
APCO-GS-CCB-MW-18	TEMP	Temperature	2/21/23 11:37	19.76	C
APCO-GS-CCB-MW-18	TURB	Turbidity	2/21/23 11:37	0.87	NTU
APCO-GS-CCB-MW-19	COND	Conductivity	2/21/23 12:28	2948.29	uS/cm
APCO-GS-CCB-MW-19	DO	DO	2/21/23 12:28	0.18	mg/L
APCO-GS-CCB-MW-19	DTW	Depth to Water Detail	2/21/23 12:28	78.51	ft
APCO-GS-CCB-MW-19	ORP	Oxidation Reduction Potention	2/21/23 12:28	43.39	mv
APCO-GS-CCB-MW-19	PH	pH	2/21/23 12:28	6.31	SU
APCO-GS-CCB-MW-19	TEMP	Temperature	2/21/23 12:28	19.19	C
APCO-GS-CCB-MW-19	TURB	Turbidity	2/21/23 12:28	3.23	NTU
APCO-GS-CCB-MW-19	COND	Conductivity	2/21/23 12:33	2968.08	uS/cm
APCO-GS-CCB-MW-19	DO	DO	2/21/23 12:33	0.14	mg/L
APCO-GS-CCB-MW-19	DTW	Depth to Water Detail	2/21/23 12:33	78.51	ft
APCO-GS-CCB-MW-19	ORP	Oxidation Reduction Potention	2/21/23 12:33	40.27	mv
APCO-GS-CCB-MW-19	PH	pH	2/21/23 12:33	6.32	SU
APCO-GS-CCB-MW-19	TEMP	Temperature	2/21/23 12:33	19.14	C
APCO-GS-CCB-MW-19	TURB	Turbidity	2/21/23 12:33	2.42	NTU
APCO-GS-CCB-MW-19	COND	Conductivity	2/21/23 12:38	2970.58	uS/cm
APCO-GS-CCB-MW-19	DO	DO	2/21/23 12:38	0.12	mg/L
APCO-GS-CCB-MW-19	DTW	Depth to Water Detail	2/21/23 12:38	78.51	ft
APCO-GS-CCB-MW-19	ORP	Oxidation Reduction Potention	2/21/23 12:38	38.52	mv
APCO-GS-CCB-MW-19	PH	pH	2/21/23 12:38	6.32	SU
APCO-GS-CCB-MW-19	TEMP	Temperature	2/21/23 12:38	19.21	C
APCO-GS-CCB-MW-19	TURB	Turbidity	2/21/23 12:38	2.31	NTU

Plant Gorgas CCB Landfills
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APCO-GS-CCB-MW-19	COND	Conductivity	2/21/23 12:43	2971.83	uS/cm
APCO-GS-CCB-MW-19	DO	DO	2/21/23 12:43	0.12	mg/L
APCO-GS-CCB-MW-19	DTW	Depth to Water Detail	2/21/23 12:43	78.51	ft
APCO-GS-CCB-MW-19	ORP	Oxidation Reduction Potention	2/21/23 12:43	37.82	mv
APCO-GS-CCB-MW-19	PH	pH	2/21/23 12:43	6.32	SU
APCO-GS-CCB-MW-19	SULFIDE	Sulfide	2/21/23 12:43	0	mg/L
APCO-GS-CCB-MW-19	TEMP	Temperature	2/21/23 12:43	19.22	C
APCO-GS-CCB-MW-19	TURB	Turbidity	2/21/23 12:43	2.24	NTU
APCO-GS-CCB-MW-20	COND	Conductivity	2/21/23 13:41	2691.14	uS/cm
APCO-GS-CCB-MW-20	DO	DO	2/21/23 13:41	0.09	mg/L
APCO-GS-CCB-MW-20	DTW	Depth to Water Detail	2/21/23 13:41	20.01	ft
APCO-GS-CCB-MW-20	ORP	Oxidation Reduction Potention	2/21/23 13:41	-70.92	mv
APCO-GS-CCB-MW-20	PH	pH	2/21/23 13:41	6.81	SU
APCO-GS-CCB-MW-20	TEMP	Temperature	2/21/23 13:41	19.61	C
APCO-GS-CCB-MW-20	TURB	Turbidity	2/21/23 13:41	0.81	NTU
APCO-GS-CCB-MW-20	COND	Conductivity	2/21/23 13:46	2688.55	uS/cm
APCO-GS-CCB-MW-20	DO	DO	2/21/23 13:46	0.07	mg/L
APCO-GS-CCB-MW-20	DTW	Depth to Water Detail	2/21/23 13:46	20.12	ft
APCO-GS-CCB-MW-20	ORP	Oxidation Reduction Potention	2/21/23 13:46	-73.55	mv
APCO-GS-CCB-MW-20	PH	pH	2/21/23 13:46	6.81	SU
APCO-GS-CCB-MW-20	TEMP	Temperature	2/21/23 13:46	19.52	C
APCO-GS-CCB-MW-20	TURB	Turbidity	2/21/23 13:46	0.9	NTU
APCO-GS-CCB-MW-20	COND	Conductivity	2/21/23 13:51	2684.49	uS/cm
APCO-GS-CCB-MW-20	DO	DO	2/21/23 13:51	0.08	mg/L
APCO-GS-CCB-MW-20	DTW	Depth to Water Detail	2/21/23 13:51	20.24	ft
APCO-GS-CCB-MW-20	ORP	Oxidation Reduction Potention	2/21/23 13:51	-74.9	mv
APCO-GS-CCB-MW-20	PH	pH	2/21/23 13:51	6.81	SU
APCO-GS-CCB-MW-20	TEMP	Temperature	2/21/23 13:51	19.43	C
APCO-GS-CCB-MW-20	TURB	Turbidity	2/21/23 13:51	0.86	NTU
APCO-GS-CCB-MW-20	COND	Conductivity	2/21/23 13:56	2686.59	uS/cm
APCO-GS-CCB-MW-20	DO	DO	2/21/23 13:56	0.07	mg/L
APCO-GS-CCB-MW-20	DTW	Depth to Water Detail	2/21/23 13:56	20.36	ft
APCO-GS-CCB-MW-20	ORP	Oxidation Reduction Potention	2/21/23 13:56	-76.37	mv
APCO-GS-CCB-MW-20	PH	pH	2/21/23 13:56	6.81	SU
APCO-GS-CCB-MW-20	SULFIDE	Sulfide	2/21/23 13:56	0	mg/L
APCO-GS-CCB-MW-20	TEMP	Temperature	2/21/23 13:56	19.48	C
APCO-GS-CCB-MW-20	TURB	Turbidity	2/21/23 13:56	0.84	NTU
APCO-GS-CCB-MW-5	COND	Conductivity	2/21/23 11:53	3404.54	uS/cm
APCO-GS-CCB-MW-5	DO	DO	2/21/23 11:53	3.4	mg/L
APCO-GS-CCB-MW-5	DTW	Depth to Water Detail	2/21/23 11:53	125.98	ft
APCO-GS-CCB-MW-5	ORP	Oxidation Reduction Potention	2/21/23 11:53	-12.42	mv
APCO-GS-CCB-MW-5	PH	pH	2/21/23 11:53	6.63	SU
APCO-GS-CCB-MW-5	TEMP	Temperature	2/21/23 11:53	19.2	C
APCO-GS-CCB-MW-5	TURB	Turbidity	2/21/23 11:53	6.34	NTU
APCO-GS-CCB-MW-5	COND	Conductivity	2/21/23 11:58	3334.06	uS/cm
APCO-GS-CCB-MW-5	DO	DO	2/21/23 11:58	1.6	mg/L
APCO-GS-CCB-MW-5	DTW	Depth to Water Detail	2/21/23 11:58	126	ft
APCO-GS-CCB-MW-5	ORP	Oxidation Reduction Potention	2/21/23 11:58	-9.69	mv
APCO-GS-CCB-MW-5	PH	pH	2/21/23 11:58	6.52	SU
APCO-GS-CCB-MW-5	TEMP	Temperature	2/21/23 11:58	19.25	C
APCO-GS-CCB-MW-5	TURB	Turbidity	2/21/23 11:58	7.65	NTU
APCO-GS-CCB-MW-5	COND	Conductivity	2/21/23 12:03	3312.48	uS/cm
APCO-GS-CCB-MW-5	DO	DO	2/21/23 12:03	1.04	mg/L
APCO-GS-CCB-MW-5	DTW	Depth to Water Detail	2/21/23 12:03	126.02	ft
APCO-GS-CCB-MW-5	ORP	Oxidation Reduction Potention	2/21/23 12:03	-10.82	mv
APCO-GS-CCB-MW-5	PH	pH	2/21/23 12:03	6.49	SU
APCO-GS-CCB-MW-5	TEMP	Temperature	2/21/23 12:03	19.37	C
APCO-GS-CCB-MW-5	TURB	Turbidity	2/21/23 12:03	8.11	NTU
APCO-GS-CCB-MW-5	COND	Conductivity	2/21/23 12:08	3322.97	uS/cm
APCO-GS-CCB-MW-5	DO	DO	2/21/23 12:08	0.88	mg/L
APCO-GS-CCB-MW-5	DTW	Depth to Water Detail	2/21/23 12:08	126.04	ft
APCO-GS-CCB-MW-5	ORP	Oxidation Reduction Potention	2/21/23 12:08	-10.26	mv
APCO-GS-CCB-MW-5	PH	pH	2/21/23 12:08	6.49	SU

Plant Gorgas CCB Landfills
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APCO-GS-CCB-MW-5	TEMP	Temperature	2/21/23 12:08	19.54	C
APCO-GS-CCB-MW-5	TURB	Turbidity	2/21/23 12:08	6.05	NTU
APCO-GS-CCB-MW-5	COND	Conductivity	2/21/23 12:13	3339.93	uS/cm
APCO-GS-CCB-MW-5	DO	DO	2/21/23 12:13	0.81	mg/L
APCO-GS-CCB-MW-5	DTW	Depth to Water Detail	2/21/23 12:13	126.04	ft
APCO-GS-CCB-MW-5	ORP	Oxidation Reduction Potention	2/21/23 12:13	-8.77	mv
APCO-GS-CCB-MW-5	PH	pH	2/21/23 12:13	6.49	SU
APCO-GS-CCB-MW-5	TEMP	Temperature	2/21/23 12:13	19.77	C
APCO-GS-CCB-MW-5	TURB	Turbidity	2/21/23 12:13	5.69	NTU
APCO-GS-CCB-MW-5	COND	Conductivity	2/21/23 12:18	3355.12	uS/cm
APCO-GS-CCB-MW-5	DO	DO	2/21/23 12:18	0.79	mg/L
APCO-GS-CCB-MW-5	DTW	Depth to Water Detail	2/21/23 12:18	126.04	ft
APCO-GS-CCB-MW-5	ORP	Oxidation Reduction Potention	2/21/23 12:18	-7.67	mv
APCO-GS-CCB-MW-5	PH	pH	2/21/23 12:18	6.5	SU
APCO-GS-CCB-MW-5	SULFIDE	Sulfide	2/21/23 12:18	0	mg/L
APCO-GS-CCB-MW-5	TEMP	Temperature	2/21/23 12:18	19.77	C
APCO-GS-CCB-MW-5	TURB	Turbidity	2/21/23 12:18	4.48	NTU
APCO-GS-CCB-MW-6	COND	Conductivity	2/22/23 13:00	2846.88	uS/cm
APCO-GS-CCB-MW-6	DO	DO	2/22/23 13:00	0.39	mg/L
APCO-GS-CCB-MW-6	DTW	Depth to Water Detail	2/22/23 13:00	95.49	ft
APCO-GS-CCB-MW-6	ORP	Oxidation Reduction Potention	2/22/23 13:00	178.79	mv
APCO-GS-CCB-MW-6	PH	pH	2/22/23 13:00	4.96	SU
APCO-GS-CCB-MW-6	TEMP	Temperature	2/22/23 13:00	21.25	C
APCO-GS-CCB-MW-6	TURB	Turbidity	2/22/23 13:00	11.2	NTU
APCO-GS-CCB-MW-6	COND	Conductivity	2/22/23 13:05	2826.95	uS/cm
APCO-GS-CCB-MW-6	DO	DO	2/22/23 13:05	0.37	mg/L
APCO-GS-CCB-MW-6	DTW	Depth to Water Detail	2/22/23 13:05	95.49	ft
APCO-GS-CCB-MW-6	ORP	Oxidation Reduction Potention	2/22/23 13:05	189.2	mv
APCO-GS-CCB-MW-6	PH	pH	2/22/23 13:05	4.96	SU
APCO-GS-CCB-MW-6	TEMP	Temperature	2/22/23 13:05	21.34	C
APCO-GS-CCB-MW-6	TURB	Turbidity	2/22/23 13:05	9.17	NTU
APCO-GS-CCB-MW-6	COND	Conductivity	2/22/23 13:10	2800.25	uS/cm
APCO-GS-CCB-MW-6	DO	DO	2/22/23 13:10	0.46	mg/L
APCO-GS-CCB-MW-6	DTW	Depth to Water Detail	2/22/23 13:10	95.49	ft
APCO-GS-CCB-MW-6	ORP	Oxidation Reduction Potention	2/22/23 13:10	191.22	mv
APCO-GS-CCB-MW-6	PH	pH	2/22/23 13:10	4.98	SU
APCO-GS-CCB-MW-6	TEMP	Temperature	2/22/23 13:10	21.4	C
APCO-GS-CCB-MW-6	TURB	Turbidity	2/22/23 13:10	6.72	NTU
APCO-GS-CCB-MW-6	COND	Conductivity	2/22/23 13:15	2795.15	uS/cm
APCO-GS-CCB-MW-6	DO	DO	2/22/23 13:15	0.45	mg/L
APCO-GS-CCB-MW-6	DTW	Depth to Water Detail	2/22/23 13:15	95.49	ft
APCO-GS-CCB-MW-6	ORP	Oxidation Reduction Potention	2/22/23 13:15	195.75	mv
APCO-GS-CCB-MW-6	PH	pH	2/22/23 13:15	4.98	SU
APCO-GS-CCB-MW-6	SULFIDE	Sulfide	2/22/23 13:15	0	mg/L
APCO-GS-CCB-MW-6	TEMP	Temperature	2/22/23 13:15	21.32	C
APCO-GS-CCB-MW-6	TURB	Turbidity	2/22/23 13:15	6.33	NTU
APCO-GS-CCB-MW-7	COND	Conductivity	2/21/23 14:03	2672.87	uS/cm
APCO-GS-CCB-MW-7	DO	DO	2/21/23 14:03		mg/L
APCO-GS-CCB-MW-7	DTW	Depth to Water Detail	2/21/23 14:03	57.08	ft
APCO-GS-CCB-MW-7	ORP	Oxidation Reduction Potention	2/21/23 14:03	-9.2	mv
APCO-GS-CCB-MW-7	PH	pH	2/21/23 14:03	6.66	SU
APCO-GS-CCB-MW-7	TEMP	Temperature	2/21/23 14:03	19.19	C
APCO-GS-CCB-MW-7	TURB	Turbidity	2/21/23 14:03	1.55	NTU
APCO-GS-CCB-MW-7	COND	Conductivity	2/21/23 14:08	2646.76	uS/cm
APCO-GS-CCB-MW-7	DO	DO	2/21/23 14:08	0.96	mg/L
APCO-GS-CCB-MW-7	DTW	Depth to Water Detail	2/21/23 14:08	57.08	ft
APCO-GS-CCB-MW-7	ORP	Oxidation Reduction Potention	2/21/23 14:08	-8.58	mv
APCO-GS-CCB-MW-7	PH	pH	2/21/23 14:08	6.69	SU
APCO-GS-CCB-MW-7	TEMP	Temperature	2/21/23 14:08	19.16	C
APCO-GS-CCB-MW-7	TURB	Turbidity	2/21/23 14:08	0.79	NTU
APCO-GS-CCB-MW-7	COND	Conductivity	2/21/23 14:13	2616.13	uS/cm
APCO-GS-CCB-MW-7	DO	DO	2/21/23 14:13	0.9	mg/L
APCO-GS-CCB-MW-7	DTW	Depth to Water Detail	2/21/23 14:13	57.08	ft

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APCO-GS-CCB-MW-7	ORP	Oxidation Reduction Potention	2/21/23 14:13	-9.09	mv
APCO-GS-CCB-MW-7	PH	pH	2/21/23 14:13	6.71	SU
APCO-GS-CCB-MW-7	TEMP	Temperature	2/21/23 14:13	19.15	C
APCO-GS-CCB-MW-7	TURB	Turbidity	2/21/23 14:13	0.65	NTU
APCO-GS-CCB-MW-7	COND	Conductivity	2/21/23 14:18	2594.5	uS/cm
APCO-GS-CCB-MW-7	DO	DO	2/21/23 14:18	0.87	mg/L
APCO-GS-CCB-MW-7	DTW	Depth to Water Detail	2/21/23 14:18	57.08	ft
APCO-GS-CCB-MW-7	ORP	Oxidation Reduction Potention	2/21/23 14:18	-7.92	mv
APCO-GS-CCB-MW-7	PH	pH	2/21/23 14:18	6.72	SU
APCO-GS-CCB-MW-7	TEMP	Temperature	2/21/23 14:18	19.16	C
APCO-GS-CCB-MW-7	TURB	Turbidity	2/21/23 14:18	0.78	NTU
APCO-GS-CCB-MW-7	COND	Conductivity	2/21/23 14:23	2577.99	uS/cm
APCO-GS-CCB-MW-7	DO	DO	2/21/23 14:23	0.94	mg/L
APCO-GS-CCB-MW-7	DTW	Depth to Water Detail	2/21/23 14:23	57.08	ft
APCO-GS-CCB-MW-7	ORP	Oxidation Reduction Potention	2/21/23 14:23	-6.78	mv
APCO-GS-CCB-MW-7	PH	pH	2/21/23 14:23	6.72	SU
APCO-GS-CCB-MW-7	SULFIDE	Sulfide	2/21/23 14:23	0	mg/L
APCO-GS-CCB-MW-7	TEMP	Temperature	2/21/23 14:23	19.16	C
APCO-GS-CCB-MW-7	TURB	Turbidity	2/21/23 14:23	0.53	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 14:55	2668.1	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 14:55	3.36	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 14:55	64.74	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 14:55	17.12	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 14:55	6.82	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 14:55	20.58	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 14:55	4.28	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:00	2702.28	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:00	1.06	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:00	64.76	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:00	10.74	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:00	6.77	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:00	21.12	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:00	19.9	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:05	2696.62	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:05	0.87	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:05	64.8	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:05	7.55	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:05	6.76	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:05	20.93	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:05	23.5	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:10	2696.47	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:10	0.69	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:10	64.8	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:10	4.9	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:10	6.76	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:10	20.71	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:10	34.1	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:15	2722.17	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:15	0.77	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:15	64.8	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:15	6.47	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:15	6.75	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:15	20.55	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:15	28.7	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:20	2722.02	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:20	0.54	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:20	64.8	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:20	5.72	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:20	6.75	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:20	20.34	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:20	20.6	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:25	2723.67	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:25	0.39	mg/L

Plant Gorgas CCB Landfills
Field Parameter Summary

APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:25	64.8	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:25	4.3	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:25	6.75	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:25	20.32	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:25	15.5	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:30	2724.42	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:30	0.34	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:30	64.8	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:30	3.53	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:30	6.75	SU
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:30	20.24	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:30	11.4	NTU
APCO-GS-CCB-MW-8	COND	Conductivity	2/21/23 15:35	2722.64	uS/cm
APCO-GS-CCB-MW-8	DO	DO	2/21/23 15:35	0.32	mg/L
APCO-GS-CCB-MW-8	DTW	Depth to Water Detail	2/21/23 15:35	64.8	ft
APCO-GS-CCB-MW-8	ORP	Oxidation Reduction Potention	2/21/23 15:35	1.47	mv
APCO-GS-CCB-MW-8	PH	pH	2/21/23 15:35	6.75	SU
APCO-GS-CCB-MW-8	SULFIDE	Sulfide	2/21/23 15:35	0	mg/L
APCO-GS-CCB-MW-8	TEMP	Temperature	2/21/23 15:35	20.26	C
APCO-GS-CCB-MW-8	TURB	Turbidity	2/21/23 15:35	7.56	NTU
APCO-GS-CCB-MW-10	COND	Conductivity	2/22/23 14:07	1390.68	uS/cm
APCO-GS-CCB-MW-10	DO	DO	2/22/23 14:07	4.43	mg/L
APCO-GS-CCB-MW-10	DTW	Depth to Water Detail	2/22/23 14:07	87.36	ft
APCO-GS-CCB-MW-10	ORP	Oxidation Reduction Potention	2/22/23 14:07	30.85	mv
APCO-GS-CCB-MW-10	PH	pH	2/22/23 14:07	6.74	SU
APCO-GS-CCB-MW-10	TEMP	Temperature	2/22/23 14:07	21.43	C
APCO-GS-CCB-MW-10	TURB	Turbidity	2/22/23 14:07	3.58	NTU
APCO-GS-CCB-MW-10	COND	Conductivity	2/22/23 14:12	1342.43	uS/cm
APCO-GS-CCB-MW-10	DO	DO	2/22/23 14:12	1.24	mg/L
APCO-GS-CCB-MW-10	DTW	Depth to Water Detail	2/22/23 14:12	87.72	ft
APCO-GS-CCB-MW-10	ORP	Oxidation Reduction Potention	2/22/23 14:12	10.55	mv
APCO-GS-CCB-MW-10	PH	pH	2/22/23 14:12	6.65	SU
APCO-GS-CCB-MW-10	TEMP	Temperature	2/22/23 14:12	21.44	C
APCO-GS-CCB-MW-10	TURB	Turbidity	2/22/23 14:12	5.84	NTU
APCO-GS-CCB-MW-10	COND	Conductivity	2/22/23 14:17	1321.62	uS/cm
APCO-GS-CCB-MW-10	DO	DO	2/22/23 14:17	0.8	mg/L
APCO-GS-CCB-MW-10	DTW	Depth to Water Detail	2/22/23 14:17	87.96	ft
APCO-GS-CCB-MW-10	ORP	Oxidation Reduction Potention	2/22/23 14:17	4.71	mv
APCO-GS-CCB-MW-10	PH	pH	2/22/23 14:17	6.65	SU
APCO-GS-CCB-MW-10	TEMP	Temperature	2/22/23 14:17	21.03	C
APCO-GS-CCB-MW-10	TURB	Turbidity	2/22/23 14:17	4.84	NTU
APCO-GS-CCB-MW-10	COND	Conductivity	2/22/23 14:22	1322.16	uS/cm
APCO-GS-CCB-MW-10	DO	DO	2/22/23 14:22	0.68	mg/L
APCO-GS-CCB-MW-10	DTW	Depth to Water Detail	2/22/23 14:22	88.08	ft
APCO-GS-CCB-MW-10	ORP	Oxidation Reduction Potention	2/22/23 14:22	1.64	mv
APCO-GS-CCB-MW-10	PH	pH	2/22/23 14:22	6.66	SU
APCO-GS-CCB-MW-10	TEMP	Temperature	2/22/23 14:22	21.36	C
APCO-GS-CCB-MW-10	TURB	Turbidity	2/22/23 14:22	4	NTU
APCO-GS-CCB-MW-10	COND	Conductivity	2/22/23 14:27	1326.24	uS/cm
APCO-GS-CCB-MW-10	DO	DO	2/22/23 14:27	0.68	mg/L
APCO-GS-CCB-MW-10	DTW	Depth to Water Detail	2/22/23 14:27	88.12	ft
APCO-GS-CCB-MW-10	ORP	Oxidation Reduction Potention	2/22/23 14:27	1.09	mv
APCO-GS-CCB-MW-10	PH	pH	2/22/23 14:27	6.67	SU
APCO-GS-CCB-MW-10	SULFIDE	Sulfide	2/22/23 14:27	0	mg/L
APCO-GS-CCB-MW-10	TEMP	Temperature	2/22/23 14:27	21.46	C
APCO-GS-CCB-MW-10	TURB	Turbidity	2/22/23 14:27	3.07	NTU

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

Analytical Report



Sample Group : WMWGORLF_1399

Project/Site : Gorgas Landfill
Parrish, AL 35580

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

Attention : Dustin Brooks & Greg Dyer

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

March 22, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on February 23, 2023. 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, 2023

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

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.03.22
15:42:28 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske c=US
United States +US, United States
e=tdmaske@southernco.com
Reason: I am the author of this document
Location:
Date: 2023-03-24 07:35-05:00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
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Alabama Power's General Test Laboratory.



Total Metals ICP

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748240	WMWGORLF_1399
BD04070	748240	WMWGORLF_1399
BD04071	748240	WMWGORLF_1399
BD04072	748240	WMWGORLF_1399
BD04073	748240	WMWGORLF_1399
BD04074	748240	WMWGORLF_1399
BD04075	748240	WMWGORLF_1399
BD04076	748240	WMWGORLF_1399
BD04077	748240	WMWGORLF_1399
BD04078	748240	WMWGORLF_1399
BD04079	748241	WMWGORLF_1399
BD04080	748241	WMWGORLF_1399
BD04081	748241	WMWGORLF_1399
BD04082	748241	WMWGORLF_1399
BD04083	748241	WMWGORLF_1399
BD04084	748241	WMWGORLF_1399
BD04085	748241	WMWGORLF_1399
BD04086	748241	WMWGORLF_1399
BD04087	748241	WMWGORLF_1399
BD04088	748241	WMWGORLF_1399
BD04089	748242	WMWGORLF_1399

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.

Revision 5

- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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:
 - BD04078 Calcium MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD04088 & BD04089 Calcium, Iron, Magnesium and Sodium MS/MSD spike levels were less than 30% of the sample 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 sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD04069	Calcium, Magnesium, Sodium	101.5
BD04070	Calcium, Magnesium	10.15
BD04071	Calcium, Magnesium	10.15
BD04072	Calcium, Iron, Magnesium, Sodium	10.15
BD04074	Calcium, Iron, Magnesium, Sodium	10.15
BD04075	Calcium, Magnesium	10.15
BD04076	Calcium, Magnesium	10.15
BD04077	Calcium, Iron, Magnesium	10.15
BD04078	Calcium, Magnesium	10.15

Case Narrative

BD04079	Calcium, Magnesium	10.15
BD04081	Calcium, Iron, Magnesium	101.5
BD04082	Calcium, Magnesium	10.15
BD04083	Calcium, Magnesium	101.5
BD04084	Calcium, Magnesium	101.5
BD04085	Calcium, Iron, Magnesium, Sodium	10.15
BD04087	Calcium, Magnesium, Sodium	10.15
BD04088	Calcium, Iron, Magnesium, Sodium	10.15
BD04089	Calcium, Iron, Magnesium, Sodium	101.5

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

Dissolved Metals ICP

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748173	WMWGORLF_1399
BD04070	748173	WMWGORLF_1399
BD04071	748173	WMWGORLF_1399
BD04072	748173	WMWGORLF_1399
BD04074	748173	WMWGORLF_1399
BD04075	748173	WMWGORLF_1399
BD04076	748173	WMWGORLF_1399
BD04077	748173	WMWGORLF_1399
BD04078	748173	WMWGORLF_1399
BD04079	748173	WMWGORLF_1399
BD04081	748174	WMWGORLF_1399
BD04082	748174	WMWGORLF_1399
BD04083	748174	WMWGORLF_1399
BD04084	748174	WMWGORLF_1399
BD04085	748174	WMWGORLF_1399
BD04087	748174	WMWGORLF_1399
BD04088	748174	WMWGORLF_1399
BD04089	748174	WMWGORLF_1399

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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:
 - BD04079 Calcium and Magnesium MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD04089 Calcium, Iron, Magnesium and Sodium MS/MSD spike levels were less than 30% of the sample 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD04069	Calcium, Magnesium, Sodium	101.5
BD04070	Calcium, Magnesium	10.15
BD04071	Calcium, Magnesium	10.15
BD04072	Calcium, Magnesium, Sodium	10.15
BD04074	Calcium, Magnesium, Sodium	10.15
BD04075	Calcium, Magnesium	10.15
BD04076	Calcium, Magnesium	10.15
BD04077	Calcium, Iron, Magnesium	10.15
BD04078	Calcium, Magnesium	10.15
BD04079	Calcium, Magnesium	10.15
BD04081	Calcium, Iron, Magnesium	101.5
BD04082	Calcium, Magnesium	10.15
BD04083	Calcium, Magnesium	101.5
BD04084	Calcium, Magnesium	101.5

Case Narrative

BD04085	Calcium, Iron, Magnesium, Sodium	10.15
BD04087	Calcium, Magnesium, Sodium	10.15
BD04088	Calcium, Magnesium, Sodium	10.15
BD04089	Calcium, Iron, Magnesium, Sodium	101.5

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

Total Metals ICPMS

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748909	WMWGORLF_1399
BD04070	748909	WMWGORLF_1399
BD04071	748909	WMWGORLF_1399
BD04072	748909	WMWGORLF_1399
BD04073	748909	WMWGORLF_1399
BD04074	748909, 750305	WMWGORLF_1399
BD04075	748909	WMWGORLF_1399
BD04076	748909	WMWGORLF_1399
BD04077	748909	WMWGORLF_1399
BD04078	748909	WMWGORLF_1399
BD04079	748910	WMWGORLF_1399
BD04080	748910	WMWGORLF_1399
BD04081	748910	WMWGORLF_1399
BD04082	748910	WMWGORLF_1399
BD04083	748910	WMWGORLF_1399
BD04084	748910	WMWGORLF_1399
BD04085	748910	WMWGORLF_1399
BD04086	748910	WMWGORLF_1399
BD04087	748910	WMWGORLF_1399
BD04088	748910	WMWGORLF_1399
BD04089	748911	WMWGORLF_1399

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.
- 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 ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BD04078 & BD04089 Manganese MS/MSD spike levels were less than 30% of the sample concentrations.
 - 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD04070	Manganese	5.075
BD04072	Manganese	92.365
BD04075	Manganese	5.075
BD04076	Manganese	5.075
BD04077	Manganese	10.15
BD04078	Manganese	5.075
BD04079	Manganese	5.075
BD04081	Manganese	92.365
BD04083	Manganese	5.075

Case Narrative

BD04084	Manganese	5.075
BD04087	Manganese	5.075
BD04089	Manganese	92.365

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

Dissolved Metals ICPMS

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748983	WMWGORLF_1399
BD04070	748983	WMWGORLF_1399
BD04071	748983	WMWGORLF_1399
BD04072	748983	WMWGORLF_1399
BD04074	748983, 750302	WMWGORLF_1399
BD04075	748983	WMWGORLF_1399
BD04076	748983	WMWGORLF_1399
BD04077	748983	WMWGORLF_1399
BD04078	748983	WMWGORLF_1399
BD04079	748983	WMWGORLF_1399
BD04081	748984	WMWGORLF_1399
BD04082	748984	WMWGORLF_1399
BD04083	748984	WMWGORLF_1399
BD04084	748984	WMWGORLF_1399
BD04085	748984	WMWGORLF_1399
BD04087	748984	WMWGORLF_1399
BD04088	748984	WMWGORLF_1399
BD04089	748984	WMWGORLF_1399

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.
- 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 ICPMS batch. All acceptance criteria for accuracy were met except for the following:
 - BD04079 & BD04089 Manganese MS/MSD spike levels were less than 30% of the sample concentrations.
 - 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD04070	Manganese	5.075
BD04072	Manganese	92.365
BD04075	Manganese	5.075
BD04076	Manganese	5.075
BD04077	Manganese	10.15
BD04078	Manganese	5.075
BD04079	Manganese	5.075
BD04081	Manganese	92.365
BD04083	Manganese	5.075
BD04084	Manganese	5.075
BD04087	Manganese	5.075
BD04089	Manganese	92.365

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

Mercury

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748528	WMWGORLF_1399
BD04070	748529	WMWGORLF_1399
BD04071	748529	WMWGORLF_1399
BD04072	748529	WMWGORLF_1399
BD04073	748529	WMWGORLF_1399
BD04074	748529	WMWGORLF_1399
BD04075	748529	WMWGORLF_1399
BD04076	748529	WMWGORLF_1399
BD04077	748529	WMWGORLF_1399
BD04078	748529	WMWGORLF_1399
BD04079	748529	WMWGORLF_1399
BD04080	748530	WMWGORLF_1399
BD04081	748530	WMWGORLF_1399
BD04082	748530	WMWGORLF_1399
BD04083	748530	WMWGORLF_1399
BD04084	748530	WMWGORLF_1399
BD04085	748530	WMWGORLF_1399
BD04086	748530	WMWGORLF_1399
BD04087	748530	WMWGORLF_1399
BD04088	748530	WMWGORLF_1399
BD04089	748530	WMWGORLF_1399

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.

Revision 5

- 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.

Total Dissolved Solids

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748199	WMWGORLF_1399
BD04070	748199	WMWGORLF_1399
BD04071	748199	WMWGORLF_1399
BD04072	748199	WMWGORLF_1399
BD04073	748199	WMWGORLF_1399
BD04074	748199	WMWGORLF_1399
BD04075	748199	WMWGORLF_1399
BD04076	748199	WMWGORLF_1399
BD04077	748199	WMWGORLF_1399
BD04078	748199	WMWGORLF_1399
BD04079	748200	WMWGORLF_1399
BD04080	748200	WMWGORLF_1399
BD04081	748200	WMWGORLF_1399
BD04082	748200	WMWGORLF_1399
BD04083	748200	WMWGORLF_1399
BD04084	748200	WMWGORLF_1399
BD04085	748200	WMWGORLF_1399
BD04086	748200	WMWGORLF_1399
BD04087	748200	WMWGORLF_1399
BD04088	748200	WMWGORLF_1399
BD04089	748340	WMWGORLF_1399

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
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:

- 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, and RPD was ≤ 10%.

Case Narrative

- 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:
 - BD04073
 - BD04080
 - BD08086

Alkalinity

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	749151, 749152, 749153	WMWGORLF_1399
BD04070	749151, 749152, 749153	WMWGORLF_1399
BD04071	749151, 749152, 749153	WMWGORLF_1399
BD04072	749216, 749217, 749218	WMWGORLF_1399
BD04074	749216, 749217, 749218	WMWGORLF_1399
BD04075	749151, 749152, 749153	WMWGORLF_1399
BD04076	749151, 749152, 749153	WMWGORLF_1399
BD04077	749151, 749152, 749153	WMWGORLF_1399
BD04078	749151, 749152, 749153	WMWGORLF_1399
BD04079	749151, 749152, 749153	WMWGORLF_1399
BD04081	749151, 749152, 749153	WMWGORLF_1399
BD04082	749151, 749152, 749153	WMWGORLF_1399
BD04083	749216, 749217, 749218	WMWGORLF_1399
BD04084	749216, 749217, 749218	WMWGORLF_1399
BD04085	749216, 749217, 749218	WMWGORLF_1399
BD04087	749216, 749217, 749218	WMWGORLF_1399
BD04088	749216, 749217, 749218	WMWGORLF_1399
BD04089	749216, 749217, 749218	WMWGORLF_1399

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
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:

- 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.

7. The following samples had pH>10 and/or TDS>500mg/L. Therefore, the calculations for carbonate and bicarbonate are estimates:

- BD04069
- BD04070
- BD04071
- BD04072
- BD04074
- BD04075
- BD04076
- BD04077
- BD04078
- BD04079
- BD04081
- BD04082
- BD04083
- BD04084
- BD04085
- BD04087
- BD04088
- BD04089

Anions

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748522, 748557, 748697	WMWGORLF_1399
BD04070	748522, 748557, 748697	WMWGORLF_1399
BD04071	748522, 748557, 748697	WMWGORLF_1399
BD04072	748522, 748557, 748697	WMWGORLF_1399
BD04073	748522, 748557, 748697	WMWGORLF_1399
BD04074	748522, 748557, 748697	WMWGORLF_1399
BD04075	748522, 748557, 748697	WMWGORLF_1399
BD04076	748522, 748557, 748697	WMWGORLF_1399
BD04077	748522, 748557, 748697	WMWGORLF_1399
BD04078	748522, 748557, 748697	WMWGORLF_1399
BD04079	748523, 748558, 748698	WMWGORLF_1399
BD04080	748523, 748558, 748698	WMWGORLF_1399
BD04081	748523, 748558, 748698	WMWGORLF_1399
BD04082	748523, 748558, 748698	WMWGORLF_1399
BD04083	748523, 748558, 748698	WMWGORLF_1399
BD04084	748523, 748558, 748698	WMWGORLF_1399
BD04085	748523, 748558, 748698	WMWGORLF_1399
BD04086	748523, 748558, 748698	WMWGORLF_1399
BD04087	748523, 748558, 748698	WMWGORLF_1399
BD04088	748523, 748558, 748698	WMWGORLF_1399
BD04089	748524, 748559, 748699	WMWGORLF_1399

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) was analyzed, 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 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 and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD04069	Sulfate	80
BD04070	Sulfate	50
BD04071	Sulfate	50
BD04072	Sulfate	80
BD04074	Sulfate	32
BD04075	Sulfate	50
BD04076	Sulfate	50
BD04077	Sulfate	50
BD04078	Sulfate	80
BD04079	Sulfate	50
BD04081	Sulfate	80
BD04082	Sulfate	50
BD04083	Sulfate	64
BD04084	Sulfate	64
BD04085	Chloride, Sulfate	5, 50
BD04087	Chloride, Sulfate	4, 50
BD04088	Chloride, Sulfate	8, 80
BD04089	Sulfate	100

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

Nitrate-Nitrite

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748513	WMWGORLF_1399
BD04070	748513	WMWGORLF_1399
BD04071	748513	WMWGORLF_1399
BD04072	748513	WMWGORLF_1399
BD04073	748513	WMWGORLF_1399
BD04074	748513	WMWGORLF_1399
BD04075	748513	WMWGORLF_1399
BD04076	748513	WMWGORLF_1399
BD04077	748513	WMWGORLF_1399
BD04078	748513	WMWGORLF_1399
BD04079	748514	WMWGORLF_1399
BD04080	748514	WMWGORLF_1399
BD04081	748514	WMWGORLF_1399
BD04082	748514	WMWGORLF_1399
BD04083	748514	WMWGORLF_1399
BD04084	748514	WMWGORLF_1399
BD04085	748514	WMWGORLF_1399
BD04086	748514	WMWGORLF_1399
BD04087	748514	WMWGORLF_1399
BD04088	748514	WMWGORLF_1399
BD04089	748515	WMWGORLF_1399

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
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.

Revision 5

- All continued calibration verification (CCV) were within the acceptance 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.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
 - Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met, except for the following:
 - BD04089 Precision is outside of the specification limit.
 - A matrix spike was run and criteria for accuracy was met, except for the following:
 - BD04078 & BD04089 matrix spike recovery is outside of the specification limit.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Gorgas Landfill

WMWGORLF_1399

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD04069	748202	WMWGORLF_1399
BD04070	748202	WMWGORLF_1399
BD04071	748202	WMWGORLF_1399
BD04072	748202	WMWGORLF_1399
BD04073	748202	WMWGORLF_1399
BD04074	748202	WMWGORLF_1399
BD04075	748202	WMWGORLF_1399
BD04076	748202	WMWGORLF_1399
BD04077	748202	WMWGORLF_1399
BD04078	748202	WMWGORLF_1399
BD04079	748203	WMWGORLF_1399
BD04080	748203	WMWGORLF_1399
BD04081	748203	WMWGORLF_1399
BD04082	748203	WMWGORLF_1399
BD04083	748203	WMWGORLF_1399
BD04084	748203	WMWGORLF_1399
BD04085	748203	WMWGORLF_1399
BD04086	748203	WMWGORLF_1399
BD04087	748203	WMWGORLF_1399
BD04088	748203	WMWGORLF_1399
BD04089	748204	WMWGORLF_1399

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
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 criteria were 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 was <1/2RL.

- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were $<1/2RL$.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met, except for the following:
 - BD04078 matrix spike and/or matrix spike duplicate recovery are outside of the specification limit.
 - A matrix spike and matrix spike duplicate were 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.

Certificate Of Analysis

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 2/21/23 12:22
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04069

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:03		1.015	0.0315	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 13:52		101.5	367	mg/L	7.0035	40.6	
* Iron, Total	2/24/23 13:19	2/27/23 15:03		1.015	3.88	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:03		1.015	0.104	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	3/2/23 12:48		101.5	334	mg/L	2.1315	40.6	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:03		1	16.3	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:03		1.015	7.63	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 13:52		101.5	47.7	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:19		1.015	0.0306	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:07		101.5	355	mg/L	7.0035	40.6	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:19		1.015	2.46	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:19		1.015	0.0939	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:07		101.5	359	mg/L	2.1315	40.6	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:19		1	16.0	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:19		1.015	7.49	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 13:07		101.5	48.8	mg/L	3.045	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 16:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 16:45		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 16:45		1.015	0.000306	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 16:45		1.015	0.0121	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 16:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 16:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 16:45		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 16:45		1.015	0.000910	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 16:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 16:45		1.015	0.394	mg/L	0.000152	0.001015	
* Molybdenum, Total	2/24/23 13:19	2/27/23 16:45		1.015	0.000945	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 16:45		1.015	6.20	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 2/21/23 12:22
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04069

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 16:45		1.015	0.00124	mg/L	0.000508	0.001015	
* Thallium, Total	2/24/23 13:19	2/27/23 16:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	0.000198	mg/L	0.000081	0.000203	J
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	0.0107	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 09:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	0.000976	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	0.322	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	0.000937	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	5.74	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	0.00172	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 01:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 10:55	2/24/23 10:55		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	260	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	3310	mg/L		178.6	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	260	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 18:05	2/23/23 18:05		1	1.17	mg/L	1.00	2	J

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF

Collected: 2/21/23 12:22

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04069

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:05	2/24/23 14:05		1	5.25	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:31	2/27/23 12:31		1	0.319	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 13:52	3/1/23 13:52		80	2210	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/21/23 12:18	2/21/23 12:18			3355.12	uS/cm			FA
pH	2/21/23 12:18	2/21/23 12:18			6.50	SU			FA
Temperature	2/21/23 12:18	2/21/23 12:18			19.77	C			FA
Turbidity	2/21/23 12:18	2/21/23 12:18			4.48	NTU			FA
Sulfide	2/21/23 12:18	2/21/23 12:18			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/21/23 12:22
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BD04069

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:22

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BD04069

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0
BD04069	Mercury, Total by CVAA	mg/L	1.000E-05	0.000500	0.004	0.00319	0.00370	0.00393	0.00340 to 0.00460	79.8	70.0 to 130	14.8	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:22

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BD04069

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 2/21/23 14:25
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04070

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:07		1.015	0.0645	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 13:56		10.15	286	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/27/23 15:07		1.015	2.07	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:07		1.015	0.0932	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	3/2/23 12:51		10.15	262	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:07		1	10.4	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:07		1.015	4.88	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/27/23 15:07		1.015	38.1	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:22		1.015	0.0664	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:10		10.15	299	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:22		1.015	2.15	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:22		1.015	0.0892	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:10		10.15	281	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:22		1	10.7	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:22		1.015	5.01	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 11:22		1.015	37.6	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 16:48		1.015	0.00153	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 16:48		1.015	0.0141	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 16:48		1.015	0.00430	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 18:52		5.075	2.10	mg/L	0.000761	0.005075	
* Molybdenum, Total	2/24/23 13:19	2/27/23 16:48		1.015	0.00103	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 16:48		1.015	6.61	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 2/21/23 14:25
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04070

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 16:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	0.00162	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	0.0131	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 09:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	0.00381	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:27		5.075	2.10	mg/L	0.000761	0.005075	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	0.000885	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	6.20	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 10:56	2/24/23 10:56		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	296	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2220	mg/L		125	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	296	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 18:23	2/23/23 18:23		1	1.91	mg/L	1.00	2	J

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 2/21/23 14:25
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04070

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:06	2/24/23 14:06		1	6.12	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:32	2/27/23 12:32		1	0.216	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 13:53	3/1/23 13:53		50	1450	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/21/23 14:23	2/21/23 14:23			2577.99	uS/cm			FA
pH	2/21/23 14:23	2/21/23 14:23			6.72	SU			FA
Temperature	2/21/23 14:23	2/21/23 14:23			19.16	C			FA
Turbidity	2/21/23 14:23	2/21/23 14:23			0.53	NTU			FA
Sulfide	2/21/23 14:23	2/21/23 14:23			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 14:25

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BD04070

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 14:25

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BD04070

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 14:25

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BD04070

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 2/21/23 15:40
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04071

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:10		1.015	0.0609	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 13:59		10.15	327	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/27/23 15:10		1.015	2.45	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:10		1.015	0.120	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	3/2/23 12:54		10.15	293	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:10		1	11.1	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:10		1.015	5.21	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/27/23 15:10		1.015	36.1	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:25		1.015	0.0617	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:13		10.15	317	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:25		1.015	1.37	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:25		1.015	0.119	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:13		10.15	321	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:25		1	11.2	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:25		1.015	5.25	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 11:25		1.015	36.7	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 16:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 16:52		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 16:52		1.015	0.00119	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 16:52		1.015	0.0148	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 16:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 16:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 16:52		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 16:52		1.015	0.00682	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 16:52		1.015	0.0000877	mg/L	0.000068	0.000203	J
* Manganese, Total	2/24/23 13:19	2/27/23 16:52		1.015	0.933	mg/L	0.000152	0.001015	
* Molybdenum, Total	2/24/23 13:19	2/27/23 16:52		1.015	0.000338	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 16:52		1.015	7.95	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 2/21/23 15:40
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04071

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 16:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 16:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	0.000567	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	0.0126	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 09:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	0.00585	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	0.844	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	0.000582	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	7.39	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 10:58	2/24/23 10:58		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	349	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2370	mg/L		125	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	349	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 18:41	2/23/23 18:41		1	Not Detected	mg/L	1.00	2	U

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF

Collected: 2/21/23 15:40

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04071

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:07	2/24/23 14:07		1	4.86	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:33	2/27/23 12:33		1	0.212	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 13:54	3/1/23 13:54		50	1510	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/21/23 15:35	2/21/23 15:35			2722.64	uS/cm			FA
pH	2/21/23 15:35	2/21/23 15:35			6.75	SU			FA
Temperature	2/21/23 15:35	2/21/23 15:35			20.26	C			FA
Turbidity	2/21/23 15:35	2/21/23 15:35			7.56	NTU			FA
Sulfide	2/21/23 15:35	2/21/23 15:35			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 15:40

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BD04071

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 15:40

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BD04071

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0	
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0	
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0	
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0	
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0	
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0	
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0	
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0	
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0	
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0	
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0	
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0	
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0	
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0	
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0	
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0	
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0	
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0	
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0	
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0	
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0	
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0	
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 15:40

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BD04071

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 2/22/23 13:20
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04072

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:13		1.015	0.0356	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:02		10.15	250	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/28/23 14:02		10.15	6.16	mg/L	0.08120	0.406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:13		1.015	0.0329	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	3/2/23 12:58		10.15	302	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:13		1	20.8	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:13		1.015	9.72	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 14:02		10.15	45.4	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:28		1.015	0.0381	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:16		10.15	266	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:28		1.015	3.60	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:28		1.015	0.0325	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:16		10.15	354	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:28		1	20.9	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:28		1.015	9.76	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 13:16		10.15	49.4	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 16:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.377	mg/L	0.006090	0.05075	
* Arsenic, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.00337	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.0136	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.00123	mg/L	0.000406	0.001015	
* Cadmium, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.00192	mg/L	0.000068	0.000203	
* Chromium, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.000301	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.567	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.000457	mg/L	0.000068	0.000203	
* Manganese, Total	2/24/23 13:19	2/27/23 18:55		92.365	55.8	mg/L	0.013855	0.092365	
* Molybdenum, Total	2/24/23 13:19	2/27/23 16:55		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	2/24/23 13:19	2/27/23 16:55		1.015	6.48	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 2/22/23 13:20
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04072

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.00190	mg/L	0.000508	0.001015	
* Thallium, Total	2/24/23 13:19	2/27/23 16:55		1.015	0.000143	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.311	mg/L	0.006090	0.05075	
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.00190	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.0118	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 09:55		1.015	0.00128	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.00194	mg/L	0.000068	0.000203	
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.487	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.000115	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:31		92.365	51.6	mg/L	0.013855	0.092365	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.000164	mg/L	0.000102	0.000203	J
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	5.86	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.00162	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:16		1.015	0.000138	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:00	2/24/23 11:00		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	32.6	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2790	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	32.6	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 19:00	2/23/23 19:00		1	2.24	mg/L	1.00	2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF

Collected: 2/22/23 13:20

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04072

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:09	2/24/23 14:09		1	4.37	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:34	2/27/23 12:34		1	0.173	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 13:55	3/1/23 13:55		80	1870	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/22/23 13:15	2/22/23 13:15			2795.15	uS/cm			FA
pH	2/22/23 13:15	2/22/23 13:15			4.98	SU			FA
Temperature	2/22/23 13:15	2/22/23 13:15			21.32	C			FA
Turbidity	2/22/23 13:15	2/22/23 13:15			6.33	NTU			FA
Sulfide	2/22/23 13:15	2/22/23 13:15			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 13:20

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BD04072

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 13:20

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BD04072

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 13:20

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BD04072

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-2

Location Code: WMWGORLFFB
Collected: 2/22/23 14:10
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04073

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	2/24/23 13:19	2/27/23 15:16		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/24/23 13:19	2/27/23 15:16		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/24/23 13:19	2/27/23 15:16		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/24/23 13:19	2/27/23 15:16		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/24/23 13:19	2/27/23 15:16		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:16		1	Not Detected	mg/L				
* Silicon, Total	2/24/23 13:19	2/27/23 15:16		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/24/23 13:19	2/27/23 15:16		1.015	Not Detected	mg/L	0.03045	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.006090	0.05075	U	
* Arsenic, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000081	0.000203	U	
* Barium, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/24/23 13:19	2/27/23 16:59		1.015	0.00196	mg/L	0.000152	0.001015		
* Molybdenum, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/24/23 13:19	2/27/23 16:59		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ELH								
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:15		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	2/24/23 11:02	2/24/23 11:02		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-2

Location Code: WMWGORLFFB

Collected: 2/22/23 14:10

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04073

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 19:16	2/23/23 19:16		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	2/24/23 14:10	2/24/23 14:10		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:35	2/27/23 12:35		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 13:57	3/1/23 13:57		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 2/22/23 14:10

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Field Blank-2

Laboratory ID Number: BD04073

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB
Sample Date: 2/22/23 14:10
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Field Blank-2

Laboratory ID Number: BD04073

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 2/22/23 14:10

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Field Blank-2

Laboratory ID Number: BD04073

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments:

Certificate Of Analysis

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 2/22/23 14:30
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04074

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:19		1.015	0.122	mg/L	0.030000	0.1015	
* Calcium, Total	2/24/23 13:19	2/28/23 14:05		10.15	152	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/28/23 14:05		10.15	5.86	mg/L	0.08120	0.406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:19		1.015	0.149	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	3/2/23 13:01		10.15	69.1	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:19		1	11.5	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:19		1.015	5.38	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 14:05		10.15	93.1	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:32		1.015	0.140	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:19		10.15	163	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:32		1.015	1.94	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:32		1.015	0.148	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:19		10.15	82.2	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:32		1	12.3	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:32		1.015	5.76	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 13:19		10.15	85.4	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.310	mg/L	0.006090	0.05075	
* Arsenic, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.000692	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.0222	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.000498	mg/L	0.000406	0.001015	J
* Cadmium, Total	2/24/23 13:19	2/27/23 17:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.000277	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.00105	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.000155	mg/L	0.000068	0.000203	J
* Manganese, Total	3/16/23 12:06	3/16/23 12:43		1.015	0.673	mg/L	0.000152	0.001015	C
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.000111	mg/L	0.000102	0.000203	J
* Potassium, Total	2/24/23 13:19	2/27/23 17:02		1.015	4.64	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF

Collected: 2/22/23 14:30

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04074

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:02		1.015	0.000611	mg/L	0.000508	0.001015	J
* Thallium, Total	2/24/23 13:19	2/27/23 17:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	0.0000835	mg/L	0.000081	0.000203	J
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	0.0191	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 09:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	0.00105	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/16/23 08:55	3/16/23 11:35		1.015	1.06	mg/L	0.000152	0.001015	C
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	0.000225	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	4.27	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:19		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:04	2/24/23 11:04		1	0.269	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	188	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	991	mg/L		75.8	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	188	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 19:29	2/23/23 19:29		1	Not Detected	mg/L	1.00	2	U

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 2/22/23 14:30
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04074

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:11	2/24/23 14:11		1	2.77	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:37	2/27/23 12:37		1	0.132	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 13:58	3/1/23 13:58		32	581	mg/L	19.2	64	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/22/23 14:27	2/22/23 14:27			1326.24	uS/cm			FA
pH	2/22/23 14:27	2/22/23 14:27			6.67	SU			FA
Temperature	2/22/23 14:27	2/22/23 14:27			21.46	C			FA
Turbidity	2/22/23 14:27	2/22/23 14:27			3.07	NTU			FA
Sulfide	2/22/23 14:27	2/22/23 14:27			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 14:30

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BD04074

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 14:30

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BD04074

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04074	Manganese, Dissolved	mg/L	0.0000325	0.00033	0.100	1.13	1.13	0.101	0.0850 to 0.115	70.0	70.0 to 130	0.00	20.0
BD04074	Manganese, Total	mg/L	-0.0000089	0.00033	0.100	0.769	0.769	0.102	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 14:30

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BD04074

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 2/20/23 11:02
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04075

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:23		1.015	0.0511	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:08		10.15	191	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/27/23 15:23		1.015	0.0377	mg/L	0.008120	0.0406	J
* Lithium, Total	2/24/23 13:19	2/27/23 15:23		1.015	0.0158	mg/L	0.007105	0.01999956	J
* Magnesium, Total	2/24/23 13:19	3/2/23 13:04		10.15	225	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:23		1	8.62	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:23		1.015	4.03	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/27/23 15:23		1.015	30.0	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:35		1.015	0.0513	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:22		10.15	213	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:35		1.015	0.0345	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:35		1.015	0.0152	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:22		10.15	259	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:35		1	8.67	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:35		1.015	4.05	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 11:35		1.015	29.9	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:06		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 17:06		1.015	0.000164	mg/L	0.000081	0.000203	J
* Barium, Total	2/24/23 13:19	2/27/23 17:06		1.015	0.0100	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:06		1.015	0.000210	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/24/23 13:19	2/27/23 17:06		1.015	0.00540	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 18:59		5.075	2.30	mg/L	0.000761	0.005075	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:06		1.015	0.000340	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 17:06		1.015	7.61	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 2/20/23 11:02
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04075

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:06		1.015	0.00148	mg/L	0.000508	0.001015	
* Thallium, Total	2/24/23 13:19	2/27/23 17:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	0.00905	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	0.00475	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:34		5.075	2.35	mg/L	0.000761	0.005075	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	0.00100	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	6.80	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	0.00176	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:06	2/24/23 11:06		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	233	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	1920	mg/L		125	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	233	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 19:48	2/23/23 19:48		1	1.37	mg/L	1.00	2	J

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF

Collected: 2/20/23 11:02

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04075

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:12	2/24/23 14:12		1	1.63	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:38	2/27/23 12:38		1	0.243	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 13:59	3/1/23 13:59		50	1150	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/20/23 10:59	2/20/23 10:59			2211.86	uS/cm			FA
pH	2/20/23 10:59	2/20/23 10:59			6.58	SU			FA
Temperature	2/20/23 10:59	2/20/23 10:59			18.98	C			FA
Turbidity	2/20/23 10:59	2/20/23 10:59			1.6	NTU			FA
Sulfide	2/20/23 10:59	2/20/23 10:59			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 11:02

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BD04075

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 11:02

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BD04075

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 11:02

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BD04075

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 2/20/23 12:02
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04076

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:26		1.015	0.0423	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:11		10.15	281	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/27/23 15:26		1.015	1.41	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:26		1.015	0.0308	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	3/2/23 13:07		10.15	333	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:26		1	11.4	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:26		1.015	5.34	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/27/23 15:26		1.015	24.0	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:38		1.015	0.0428	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:26		10.15	285	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:38		1.015	1.20	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:38		1.015	0.0307	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:26		10.15	334	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:38		1	11.6	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:38		1.015	5.42	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 11:38		1.015	24.2	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:09		1.015	0.00621	mg/L	0.006090	0.05075	J
* Arsenic, Total	2/24/23 13:19	2/27/23 17:09		1.015	0.000883	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:09		1.015	0.0113	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:09		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 17:09		1.015	0.00829	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 19:03		5.075	1.95	mg/L	0.000761	0.005075	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:09		1.015	0.00444	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 17:09		1.015	8.02	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 2/20/23 12:02
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04076

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 17:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	0.000639	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	0.0106	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	0.00732	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:38		5.075	1.89	mg/L	0.000761	0.005075	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	0.00430	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	7.36	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:08	2/24/23 11:08		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	242	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2590	mg/L		178.6	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	242	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 20:07	2/23/23 20:07		1	Not Detected	mg/L	1.00	2	U

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF

Collected: 2/20/23 12:02

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04076

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:13	2/24/23 14:13		1	2.04	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:39	2/27/23 12:39		1	0.226	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:00	3/1/23 14:00		50	1680	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/20/23 11:59	2/20/23 11:59			2825.50	uS/cm			FA
pH	2/20/23 11:59	2/20/23 11:59			6.45	SU			FA
Temperature	2/20/23 11:59	2/20/23 11:59			19.03	C			FA
Turbidity	2/20/23 11:59	2/20/23 11:59			2.26	NTU			FA
Sulfide	2/20/23 11:59	2/20/23 11:59			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/20/23 12:02
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BD04076

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/20/23 12:02
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BD04076

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 12:02

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BD04076

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 2/20/23 13:17
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04077

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:29		1.015	0.0396	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:14		10.15	232	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/28/23 14:14		10.15	13.8	mg/L	0.08120	0.406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:29		1.015	0.0510	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	3/2/23 13:10		10.15	236	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:29		1	18.6	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:29		1.015	8.70	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/27/23 15:29		1.015	22.8	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:41		1.015	0.0403	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:29		10.15	239	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 13:29		10.15	13.6	mg/L	0.08120	0.406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:41		1.015	0.0491	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:29		10.15	257	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:41		1	18.6	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:41		1.015	8.70	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 11:41		1.015	22.6	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 17:13		1.015	0.000217	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:13		1.015	0.0109	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 17:13		1.015	0.0533	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 19:06		10.15	9.37	mg/L	0.001522	0.01015	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	2/24/23 13:19	2/27/23 17:13		1.015	5.32	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 2/20/23 13:17
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04077

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:13		1.015	0.000915	mg/L	0.000508	0.001015	J
* Thallium, Total	2/24/23 13:19	2/27/23 17:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	0.000147	mg/L	0.000081	0.000203	J
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	0.00952	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	0.0459	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:41		10.15	9.18	mg/L	0.001522	0.01015	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	0.00141	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	4.79	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	0.000994	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:09	2/24/23 11:09		1	0.211	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	157	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2160	mg/L		125	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	157	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 20:25	2/23/23 20:25		1	Not Detected	mg/L	1.00	2	U

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF

Collected: 2/20/23 13:17

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04077

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:15	2/24/23 14:15		1	2.00	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:40	2/27/23 12:40		1	0.301	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:01	3/1/23 14:01		50	1400	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/20/23 13:14	2/20/23 13:14			2389.42	uS/cm			FA
pH	2/20/23 13:14	2/20/23 13:14			6.08	SU			FA
Temperature	2/20/23 13:14	2/20/23 13:14			18.93	C			FA
Turbidity	2/20/23 13:14	2/20/23 13:14			4.88	NTU			FA
Sulfide	2/20/23 13:14	2/20/23 13:14			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 13:17

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BD04077

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 13:17

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BD04077

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 13:17

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BD04077

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF
Collected: 2/20/23 14:45
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04078

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/27/23 15:32		1.015	0.0416	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:18		10.15	297	mg/L	0.70035	4.06	RA
* Iron, Total	2/24/23 13:19	2/27/23 15:32		1.015	2.52	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/27/23 15:32		1.015	0.0166	mg/L	0.007105	0.01999956	J
* Magnesium, Total	2/24/23 13:19	3/2/23 13:13		10.15	248	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/27/23 15:32		1	12.7	mg/L			
* Silicon, Total	2/24/23 13:19	2/27/23 15:32		1.015	5.92	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/27/23 15:32		1.015	26.1	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:44		1.015	0.0418	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:32		10.15	306	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:44		1.015	2.49	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:44		1.015	0.0169	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:32		10.15	268	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:44		1	12.6	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:44		1.015	5.91	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 11:44		1.015	26.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 17:16		1.015	0.00216	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:16		1.015	0.0128	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 17:16		1.015	0.0103	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 19:10		5.075	2.73	mg/L	0.000761	0.005075	RA
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:16		1.015	0.000466	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 17:16		1.015	8.03	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Total Organic Carbon & Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF
Collected: 2/20/23 14:45
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04078

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 17:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	0.00211	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	0.0111	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	0.00888	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:45		5.075	2.63	mg/L	0.000761	0.005075	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	0.000846	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	7.03	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:15	2/24/23 11:15		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	370	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2330	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	370	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 20:43	2/23/23 20:43		1	1.10	mg/L	1.00	2	J

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Total Organic Carbon & Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF

Collected: 2/20/23 14:45

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04078

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:16	2/24/23 14:16		1	2.85	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:42	2/27/23 12:42		1	0.165	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:03	3/1/23 14:03		80	1350	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/20/23 14:43	2/20/23 14:43			2593.82	uS/cm			FA
pH	2/20/23 14:43	2/20/23 14:43			6.53	SU			FA
Temperature	2/20/23 14:43	2/20/23 14:43			19.63	C			FA
Turbidity	2/20/23 14:43	2/20/23 14:43			1.66	NTU			FA
Sulfide	2/20/23 14:43	2/20/23 14:43			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Total Organic Carbon & Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/20/23 14:45
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BD04078

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04078	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04078	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.110	0.110	0.0988	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04078	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.103	0.104	0.0999	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04078	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.120	0.123	0.107	0.0850 to 0.115	107	70.0 to 130	2.47	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04078	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0915	0.0912	0.0997	0.0850 to 0.115	91.5	70.0 to 130	0.328	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04078	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.08	1.07	1.00	0.850 to 1.15	104	70.0 to 130	0.930	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04078	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0993	0.0984	0.104	0.0850 to 0.115	99.3	70.0 to 130	0.910	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04078	Calcium, Total	mg/L	-0.0229	0.152	5.00	296	308	4.80	4.25 to 5.75	-20.0	70.0 to 130	3.97	20.0
BD04078	Chloride	mg/L	0.0274	1.00	10.0	13.1	13.0	10.1	9.00 to 11.0	102	80.0 to 120	0.766	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04078	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.102	0.103	0.106	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04078	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.116	0.114	0.112	0.0850 to 0.115	106	70.0 to 130	1.74	20.0
BD04078	Fluoride	mg/L	0.0384	0.125	2.50	2.72	2.79	2.59	2.25 to 2.75	102	80.0 to 120	2.54	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04078	Iron, Total	mg/L	0.000927	0.0176	0.2	2.70	2.68	0.200	0.170 to 0.230	90.0	70.0 to 130	0.743	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Total Organic Carbon & Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/20/23 14:45
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BD04078

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0	
BD04078	Lead, Total	mg/L	0.000011	0.000147	0.100	0.107	0.108	0.112	0.0850 to 0.115	107	70.0 to 130	0.930	20.0	
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0	
BD04078	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.233	0.227	0.198	0.170 to 0.230	108	70.0 to 130	2.61	20.0	
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0	
BD04078	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	253	252	5.01	4.25 to 5.75	100	70.0 to 130	0.396	20.0	
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0	
BD04078	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	2.74	2.72	0.107	0.0850 to 0.115	10.0	70.0 to 130	0.733	20.0	
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0	
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0	
BD04078	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0	
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0	
BD04078	Potassium, Total	mg/L	0.0259	0.367	10.0	17.7	18.2	10.3	8.50 to 11.5	96.7	70.0 to 130	2.79	20.0	
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0	
BD04078	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.103	0.103	0.103	0.0850 to 0.115	103	70.0 to 130	0.00	20.0	
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0	
BD04078	Silicon, Total	mg/L	0.000121	0.0440	1.00	6.85	6.81	0.995	0.850 to 1.15	93.0	70.0 to 130	0.586	20.0	
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0	
BD04078	Sodium, Total	mg/L	-0.000766	0.0880	5.00	31.7	31.2	4.88	4.25 to 5.75	112	70.0 to 130	1.59	20.0	
BD04078	Sulfate	mg/L	0.0571	2.0	1600	2960	3050	19.3	18.0 to 22.0	101	80.0 to 120	3.00	20.0	
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0	
BD04078	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.111	0.107	0.110	0.0850 to 0.115	111	70.0 to 130	3.67	20.0	
BD04078	Total Organic Carbon	mg/L	0.0924	1.00	10.0	11.5	13.9	25.5		104	80.0 to 120	18.9	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Total Organic Carbon & Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 14:45

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BD04078

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04078	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.23	0.022	1.83	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BD04078	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			3.05	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Total Organic Carbon & Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16 Dup

Location Code: WMWGORLF
Collected: 2/20/23 14:45
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04079

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:17		1.015	0.0450	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:33		10.15	315	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/28/23 11:17		1.015	2.51	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/28/23 11:17		1.015	0.0166	mg/L	0.007105	0.01999956	J
* Magnesium, Total	2/24/23 13:19	2/28/23 14:33		10.15	269	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:17		1	12.7	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:17		1.015	5.93	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 11:17		1.015	25.9	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 11:47		1.015	0.0416	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:35		10.15	334	mg/L	0.70035	4.06	RA
* Iron, Dissolved	2/23/23 13:36	2/27/23 11:47		1.015	2.46	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 11:47		1.015	0.0164	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:35		10.15	291	mg/L	0.21315	4.06	RA
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 11:47		1	12.6	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 11:47		1.015	5.88	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 11:47		1.015	26.5	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 17:38		1.015	0.00206	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:38		1.015	0.0126	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 17:38		1.015	0.0103	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 19:31		5.075	2.59	mg/L	0.000761	0.005075	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:38		1.015	0.000429	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 17:38		1.015	7.81	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16 Dup

Location Code: WMWGORLF
Collected: 2/20/23 14:45
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04079

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 17:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	0.00182	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	0.0107	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	0.00880	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:49		5.075	2.62	mg/L	0.000761	0.005075	RA
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	0.000528	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	7.08	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 15:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:20	2/24/23 11:20		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	357	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2320	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	357	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 21:58	2/23/23 21:58		1	1.02	mg/L	1.00	2	J

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16 Dup

Location Code: WMWGORLF

Collected: 2/20/23 14:45

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04079

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:29	2/24/23 14:29		1	2.82	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:53	2/27/23 12:53		1	0.183	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:16	3/1/23 14:16		50	1350	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/20/23 14:43	2/20/23 14:43			2593.82	uS/cm			FA
pH	2/20/23 14:43	2/20/23 14:43			6.53	SU			FA
Temperature	2/20/23 14:43	2/20/23 14:43			19.63	C			FA
Turbidity	2/20/23 14:43	2/20/23 14:43			1.66	NTU			FA
Sulfide	2/20/23 14:43	2/20/23 14:43			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/20/23 14:45
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-16 Dup

Laboratory ID Number: BD04079

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD04079	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0898	0.0939	0.0965	0.0850 to 0.115	89.8	70.0 to 130	4.46	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04079	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0869	0.0903	0.0904	0.0850 to 0.115	86.9	70.0 to 130	3.84	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04079	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.100	0.106	0.0960	0.0850 to 0.115	98.2	70.0 to 130	5.83	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04079	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.108	0.0954	0.0850 to 0.115	94.3	70.0 to 130	2.82	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04079	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.104	0.102	0.108	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04079	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.09	1.08	1.01	0.850 to 1.15	105	70.0 to 130	0.922	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04079	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0905	0.0950	0.0975	0.0850 to 0.115	90.5	70.0 to 130	4.85	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04079	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	316	324	5.07	4.25 to 5.75	-360	70.0 to 130	2.50	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04079	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0917	0.0975	0.0989	0.0850 to 0.115	91.7	70.0 to 130	6.13	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04079	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.0979	0.102	0.0995	0.0850 to 0.115	89.1	70.0 to 130	4.10	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04079	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	2.65	2.63	0.202	0.170 to 0.230	95.0	70.0 to 130	0.758	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 14:45

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-16 Dup

Laboratory ID Number: BD04079

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04079	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.0928	0.101	0.100	0.0850 to 0.115	92.8	70.0 to 130	8.46	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04079	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.228	0.225	0.194	0.170 to 0.230	106	70.0 to 130	1.32	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04079	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	279	285	5.09	4.25 to 5.75	-240	70.0 to 130	2.13	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04079	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	2.64	2.71	0.0997	0.0850 to 0.115	20.0	70.0 to 130	2.62	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04079	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00376	0.00369	0.00348	0.00340 to 0.00460	94.0	70.0 to 130	1.88	20.0
BD04079	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0959	0.0992	0.0972	0.0850 to 0.115	95.4	70.0 to 130	3.38	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04079	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	15.8	17.1	9.85	8.50 to 11.5	87.2	70.0 to 130	7.90	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04079	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.110	0.115	0.101	0.0850 to 0.115	110	70.0 to 130	4.44	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04079	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	6.89	6.88	1.01	0.850 to 1.15	101	70.0 to 130	0.145	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04079	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	31.9	31.6	4.91	4.25 to 5.75	108	70.0 to 130	0.945	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04079	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.0942	0.101	0.101	0.0850 to 0.115	94.2	70.0 to 130	6.97	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/20/23 14:45

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-16 Dup

Laboratory ID Number: BD04079

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-1

Location Code: WMWGORLFFB
Collected: 2/20/23 15:10
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04080

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	2/24/23 13:19	2/28/23 11:20		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/24/23 13:19	2/28/23 11:20		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/24/23 13:19	2/28/23 11:20		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/24/23 13:19	2/28/23 11:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/24/23 13:19	2/28/23 11:20		1.015	0.0359	mg/L	0.021315	0.406	J	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:20		1	Not Detected	mg/L				
* Silicon, Total	2/24/23 13:19	2/28/23 11:20		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/24/23 13:19	2/28/23 11:20		1.015	Not Detected	mg/L	0.03045	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.006090	0.05075	U	
* Arsenic, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000081	0.000203	U	
* Barium, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/24/23 13:19	2/27/23 17:41		1.015	0.000204	mg/L	0.000152	0.001015	J	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/24/23 13:19	2/27/23 17:41		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ELH								
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 02:59		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	2/24/23 11:22	2/24/23 11:22		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-1

Location Code: WMWGORLFFB

Collected: 2/20/23 15:10

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04080

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 22:14	2/23/23 22:14		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:30	2/24/23 14:30		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:54	2/27/23 12:54		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:17	3/1/23 14:17		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 2/20/23 15:10

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Field Blank-1

Laboratory ID Number: BD04080

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 2/20/23 15:10

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Field Blank-1

Laboratory ID Number: BD04080

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 2/20/23 15:10

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Field Blank-1

Laboratory ID Number: BD04080

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments:

Certificate Of Analysis

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF
Collected: 2/21/23 10:38
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04081

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:23		1.015	0.0469	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:37		101.5	352	mg/L	7.0035	40.6	
* Iron, Total	2/24/23 13:19	2/28/23 14:37		101.5	18.2	mg/L	0.8120	4.06	
* Lithium, Total	2/24/23 13:19	2/28/23 11:23		1.015	0.0412	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	2/28/23 14:37		101.5	382	mg/L	2.1315	40.6	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:23		1	16.9	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:23		1.015	7.92	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 11:23		1.015	36.7	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:03		1.015	0.0423	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:51		101.5	378	mg/L	7.0035	40.6	
* Iron, Dissolved	2/23/23 13:36	2/27/23 13:51		101.5	15.8	mg/L	0.8120	4.06	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:03		1.015	0.0428	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:51		101.5	419	mg/L	2.1315	40.6	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:03		1	16.8	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:03		1.015	7.87	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 12:03		1.015	37.2	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:45		1.015	0.00723	mg/L	0.006090	0.05075	J
* Arsenic, Total	2/24/23 13:19	2/27/23 17:45		1.015	0.00134	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:45		1.015	0.0135	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:45		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 17:45		1.015	0.325	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 19:35		92.365	17.7	mg/L	0.013855	0.092365	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:45		1.015	0.000181	mg/L	0.000102	0.000203	J
* Potassium, Total	2/24/23 13:19	2/27/23 17:45		1.015	7.12	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF
Collected: 2/21/23 10:38
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04081

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 17:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	0.00143	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	0.0117	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	0.251	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 11:59		92.365	16.5	mg/L	0.013855	0.092365	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	0.00130	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	6.51	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:24	2/24/23 11:24		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	178	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	3740	mg/L		227.3	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	178	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 22:31	2/23/23 22:31		1	1.82	mg/L	1.00	2	J

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF

Collected: 2/21/23 10:38

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04081

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:31	2/24/23 14:31		1	2.20	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:56	2/27/23 12:56		1	0.198	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:19	3/1/23 14:19		80	2460	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/21/23 10:35	2/21/23 10:35			3602.75	uS/cm			FA
pH	2/21/23 10:35	2/21/23 10:35			6.07	SU			FA
Temperature	2/21/23 10:35	2/21/23 10:35			20.41	C			FA
Turbidity	2/21/23 10:35	2/21/23 10:35			1.8	NTU			FA
Sulfide	2/21/23 10:35	2/21/23 10:35			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 10:38

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BD04081

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec			Prec Limit
			MB	Limit				Standard	Limit	Rec	Limit	Prec	
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/21/23 10:38
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BD04081

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 10:38

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BD04081

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 2/21/23 11:40
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04082

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	2/24/23 13:19	2/28/23 11:27		1.015	0.0316	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/24/23 13:19	2/28/23 14:40		10.15	283	mg/L	0.70035	4.06		
* Iron, Total	2/24/23 13:19	2/28/23 11:27		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/24/23 13:19	2/28/23 11:27		1.015	0.0473	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/24/23 13:19	2/28/23 14:40		10.15	283	mg/L	0.21315	4.06		
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:27		1	13.4	mg/L				
* Silicon, Total	2/24/23 13:19	2/28/23 11:27		1.015	6.28	mg/L	0.02030	0.25375		
* Sodium, Total	2/24/23 13:19	2/28/23 11:27		1.015	28.1	mg/L	0.03045	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:06		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:54		10.15	288	mg/L	0.70035	4.06		
* Iron, Dissolved	2/23/23 13:36	2/27/23 12:06		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:06		1.015	0.0476	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:54		10.15	300	mg/L	0.21315	4.06		
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:06		1	13.4	mg/L				
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:06		1.015	6.28	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/23/23 13:36	2/27/23 12:06		1.015	28.1	mg/L	0.03045	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.006090	0.05075	U	
* Arsenic, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000081	0.000203	U	
* Barium, Total	2/24/23 13:19	2/27/23 17:48		1.015	0.0112	mg/L	0.000508	0.001015		
* Beryllium, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/24/23 13:19	2/27/23 17:48		1.015	0.000829	mg/L	0.000152	0.001015	J	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	2/24/23 13:19	2/27/23 17:48		1.015	6.71	mg/L	0.169505	0.5075		

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 2/21/23 11:40
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04082

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:48		1.015	0.00436	mg/L	0.000508	0.001015	
* Thallium, Total	2/24/23 13:19	2/27/23 17:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	0.00893	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	0.000415	mg/L	0.000152	0.001015	J
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	0.00123	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	5.95	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	0.00408	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:26	2/24/23 11:26		1	0.473	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/3/23 14:10	3/3/23 15:40		1	144	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2480	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	144	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/3/23 14:10	3/3/23 15:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 22:46	2/23/23 22:46		1	Not Detected	mg/L	1.00	2	U

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 2/21/23 11:40
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04082

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:32	2/24/23 14:32		1	1.30	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:57	2/27/23 12:57		1	0.317	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:20	3/1/23 14:20		50	1610	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/21/23 11:37	2/21/23 11:37			2625.69	uS/cm			FA
pH	2/21/23 11:37	2/21/23 11:37			6.63	SU			FA
Temperature	2/21/23 11:37	2/21/23 11:37			19.76	C			FA
Turbidity	2/21/23 11:37	2/21/23 11:37			0.87	NTU			FA
Sulfide	2/21/23 11:37	2/21/23 11:37			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/21/23 11:40
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BD04082

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 11:40

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BD04082

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 11:40

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BD04082

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04082	Alkalinity to pH 4.5	mg CaCO3/L					144	49.9	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 2/21/23 12:46
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04083

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:30		1.015	0.0376	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:43		101.5	292	mg/L	7.0035	40.6	
* Iron, Total	2/24/23 13:19	2/28/23 11:30		1.015	3.87	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/28/23 11:30		1.015	0.0508	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	2/28/23 14:43		101.5	299	mg/L	2.1315	40.6	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:30		1	17.5	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:30		1.015	8.18	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 11:30		1.015	32.5	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:10		1.015	0.0331	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 13:57		101.5	297	mg/L	7.0035	40.6	
* Iron, Dissolved	2/23/23 13:36	2/27/23 12:10		1.015	1.81	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:10		1.015	0.0523	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 13:57		101.5	309	mg/L	2.1315	40.6	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:10		1	16.9	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:10		1.015	7.90	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 12:10		1.015	32.9	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:52		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 17:52		1.015	0.000311	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:52		1.015	0.0100	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:52		1.015	0.000246	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/24/23 13:19	2/27/23 17:52		1.015	0.0440	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:52		1.015	0.0000751	mg/L	0.000068	0.000203	J
* Manganese, Total	2/24/23 13:19	2/27/23 19:38		5.075	2.84	mg/L	0.000761	0.005075	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:52		1.015	0.000229	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 17:52		1.015	5.77	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 2/21/23 12:46
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04083

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 17:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	0.00835	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	0.0000953	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	0.0376	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 12:03		5.075	2.81	mg/L	0.000761	0.005075	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	0.000328	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	5.27	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:10		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:28	2/24/23 11:28		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	200	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2910	mg/L		178.6	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	200	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 23:05	2/23/23 23:05		1	Not Detected	mg/L	1.00	2	U

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF

Collected: 2/21/23 12:46

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04083

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:33	2/24/23 14:33		1	2.19	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:58	2/27/23 12:58		1	0.381	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:21	3/1/23 14:21		64	1960	mg/L	38.4	128	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/21/23 12:43	2/21/23 12:43			2971.83	uS/cm			FA
pH	2/21/23 12:43	2/21/23 12:43			6.32	SU			FA
Temperature	2/21/23 12:43	2/21/23 12:43			19.22	C			FA
Turbidity	2/21/23 12:43	2/21/23 12:43			2.24	NTU			FA
Sulfide	2/21/23 12:43	2/21/23 12:43			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:46

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BD04083

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:46

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BD04083

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:46

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BD04083

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19 Dup

Location Code: WMWGORLF
Collected: 2/21/23 12:46
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04084

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:33		1.015	0.0371	mg/L	0.030000	0.1015	J
* Calcium, Total	2/24/23 13:19	2/28/23 14:46		101.5	298	mg/L	7.0035	40.6	
* Iron, Total	2/24/23 13:19	2/28/23 11:33		1.015	3.23	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/28/23 11:33		1.015	0.0512	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	2/28/23 14:46		101.5	298	mg/L	2.1315	40.6	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:33		1	17.3	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:33		1.015	8.07	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 11:33		1.015	32.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:13		1.015	0.0332	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 14:00		101.5	300	mg/L	7.0035	40.6	
* Iron, Dissolved	2/23/23 13:36	2/27/23 12:13		1.015	1.81	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:13		1.015	0.0522	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 14:00		101.5	314	mg/L	2.1315	40.6	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:13		1	17.0	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:13		1.015	7.94	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 12:13		1.015	32.8	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:55		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 17:55		1.015	0.000266	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:55		1.015	0.00993	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:55		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 17:55		1.015	0.0445	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:55		1.015	0.0000696	mg/L	0.000068	0.000203	J
* Manganese, Total	2/24/23 13:19	2/27/23 19:42		5.075	2.80	mg/L	0.000761	0.005075	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:55		1.015	0.000167	mg/L	0.000102	0.000203	J
* Potassium, Total	2/24/23 13:19	2/27/23 17:55		1.015	5.97	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19 Dup

Location Code: WMWGORLF
Collected: 2/21/23 12:46
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04084

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 17:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	0.0000987	mg/L	0.000081	0.000203	J
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	0.00882	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	0.0380	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 12:06		5.075	2.83	mg/L	0.000761	0.005075	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	0.000591	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	5.34	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:30	2/24/23 11:30		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	200	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2900	mg/L		178.6	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	200	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 23:18	2/23/23 23:18		1	4.90	mg/L	1.00	2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19 Dup

Location Code: WMWGORLF

Collected: 2/21/23 12:46

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04084

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:35	2/24/23 14:35		1	2.17	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 12:59	2/27/23 12:59		1	0.382	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:22	3/1/23 14:22		64	1920	mg/L	38.4	128	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/21/23 12:43	2/21/23 12:43			2971.83	uS/cm			FA
pH	2/21/23 12:43	2/21/23 12:43			6.32	SU			FA
Temperature	2/21/23 12:43	2/21/23 12:43			19.22	C			FA
Turbidity	2/21/23 12:43	2/21/23 12:43			2.24	NTU			FA
Sulfide	2/21/23 12:43	2/21/23 12:43			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:46

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-19 Dup

Laboratory ID Number: BD04084

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:46

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-19 Dup

Laboratory ID Number: BD04084

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 12:46

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-19 Dup

Laboratory ID Number: BD04084

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 2/21/23 14:00
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04085

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:36		1.015	0.104	mg/L	0.030000	0.1015	
* Calcium, Total	2/24/23 13:19	2/28/23 14:49		10.15	310	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/28/23 14:49		10.15	6.84	mg/L	0.08120	0.406	
* Lithium, Total	2/24/23 13:19	2/28/23 11:36		1.015	0.190	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	2/28/23 14:49		10.15	165	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:36		1	21.2	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:36		1.015	9.89	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 14:49		10.15	130	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:16		1.015	0.100	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 14:03		10.15	324	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 14:03		10.15	6.91	mg/L	0.08120	0.406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:16		1.015	0.192	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 14:03		10.15	176	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:16		1	20.8	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:16		1.015	9.74	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 14:03		10.15	137	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 17:59		1.015	0.000706	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 17:59		1.015	0.0164	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 17:59		1.015	0.000330	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 17:59		1.015	1.11	mg/L	0.000152	0.001015	
* Molybdenum, Total	2/24/23 13:19	2/27/23 17:59		1.015	0.000949	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 17:59		1.015	6.06	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 2/21/23 14:00
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04085

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 17:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	0.000634	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	0.0158	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	0.000270	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	1.00	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	0.00188	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	5.45	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:32	2/24/23 11:32		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	258	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2220	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	258	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 23:33	2/23/23 23:33		1	3.40	mg/L	1.00	2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF

Collected: 2/21/23 14:00

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04085

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:43	2/24/23 14:43		5	58.9	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 13:00	2/27/23 13:00		1	0.148	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:23	3/1/23 14:23		50	1390	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/21/23 13:56	2/21/23 13:56			2686.59	uS/cm			FA
pH	2/21/23 13:56	2/21/23 13:56			6.81	SU			FA
Temperature	2/21/23 13:56	2/21/23 13:56			19.48	C			FA
Turbidity	2/21/23 13:56	2/21/23 13:56			0.84	NTU			FA
Sulfide	2/21/23 13:56	2/21/23 13:56			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 14:00

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BD04085

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 14:00

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BD04085

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 14:00

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BD04085

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill Equipment Blank-1

Location Code: WMWGORLFEB
Collected: 2/21/23 14:35
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04086

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:39		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/24/23 13:19	2/28/23 11:39		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/24/23 13:19	2/28/23 11:39		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/24/23 13:19	2/28/23 11:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/24/23 13:19	2/28/23 11:39		1.015	Not Detected	mg/L	0.021315	0.406	U
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:39		1	Not Detected	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:39		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	2/24/23 13:19	2/28/23 11:39		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 18:02		1.015	0.000307	mg/L	0.000152	0.001015	J
* Molybdenum, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 18:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:37	2/24/23 11:37		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	Not Detected	mg/L		25	U

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

Comments:

Certificate Of Analysis

Description: Gorgas Landfill Equipment Blank-1

Location Code: WMWGORLFEB
Collected: 2/21/23 14:35
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04086

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/23/23 23:48	2/23/23 23:48		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	2/24/23 14:37	2/24/23 14:37		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 13:02	2/27/23 13:02		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:25	3/1/23 14:25		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORLFEB

Sample Date: 2/21/23 14:35

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BD04086

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFEB

Sample Date: 2/21/23 14:35

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BD04086

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFEB

Sample Date: 2/21/23 14:35

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BD04086

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments:

Certificate Of Analysis

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF
Collected: 2/21/23 15:25
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04087

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:43		1.015	0.104	mg/L	0.030000	0.1015	
* Calcium, Total	2/24/23 13:19	2/28/23 14:52		10.15	314	mg/L	0.70035	4.06	
* Iron, Total	2/24/23 13:19	2/28/23 11:43		1.015	3.94	mg/L	0.008120	0.0406	
* Lithium, Total	2/24/23 13:19	2/28/23 11:43		1.015	0.204	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	2/28/23 14:52		10.15	165	mg/L	0.21315	4.06	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:43		1	21.4	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:43		1.015	9.99	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 14:52		10.15	139	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:19		1.015	0.101	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/23/23 13:36	2/27/23 14:07		10.15	327	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 12:19		1.015	3.86	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:19		1.015	0.206	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 14:07		10.15	178	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:19		1	21.2	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:19		1.015	9.91	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 14:07		10.15	147	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 18:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 18:06		1.015	0.00821	mg/L	0.006090	0.05075	J
* Arsenic, Total	2/24/23 13:19	2/27/23 18:06		1.015	0.000859	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 18:06		1.015	0.0167	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 18:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 18:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 18:06		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 18:06		1.015	0.000889	mg/L	0.000068	0.000203	
* Lead, Total	2/24/23 13:19	2/27/23 18:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 19:45		5.075	1.46	mg/L	0.000761	0.005075	
* Molybdenum, Total	2/24/23 13:19	2/27/23 18:06		1.015	0.00138	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 18:06		1.015	6.25	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF

Collected: 2/21/23 15:25

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04087

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 18:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 18:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	0.000801	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	0.0144	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	0.000846	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/28/23 12:21		5.075	1.52	mg/L	0.000761	0.005075	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	0.00164	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	5.70	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:39	2/24/23 11:39		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	270	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2160	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	269	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	0.517	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/24/23 00:03	2/24/23 00:03		1	4.96	mg/L	1.00	2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF
Collected: 2/21/23 15:25
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04087

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:44	2/24/23 14:44		4	50.4	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 13:03	2/27/23 13:03		1	0.129	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:26	3/1/23 14:26		50	1290	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/21/23 15:22	2/21/23 15:22			2597.79	uS/cm			FA
pH	2/21/23 15:22	2/21/23 15:22			6.77	SU			FA
Temperature	2/21/23 15:22	2/21/23 15:22			20.11	C			FA
Turbidity	2/21/23 15:22	2/21/23 15:22			0.8	NTU			FA
Sulfide	2/21/23 15:22	2/21/23 15:22			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/21/23 15:25
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BD04087

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 15:25

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BD04087

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/21/23 15:25

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BD04087

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 2/22/23 12:35
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04088

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/24/23 13:19	2/28/23 11:46		1.015	0.152	mg/L	0.030000	0.1015	
* Calcium, Total	2/24/23 13:19	2/28/23 14:56		10.15	297	mg/L	0.70035	4.06	RA
* Iron, Total	2/24/23 13:19	2/28/23 14:56		10.15	4.04	mg/L	0.08120	0.406	RA
* Lithium, Total	2/24/23 13:19	2/28/23 11:46		1.015	0.279	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/24/23 13:19	2/28/23 14:56		10.15	191	mg/L	0.21315	4.06	RA
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 11:46		1	15.2	mg/L			
* Silicon, Total	2/24/23 13:19	2/28/23 11:46		1.015	7.11	mg/L	0.02030	0.25375	
* Sodium, Total	2/24/23 13:19	2/28/23 14:56		10.15	152	mg/L	0.3045	4.06	RA
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:22		1.015	0.151	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/23/23 13:36	2/27/23 14:10		10.15	277	mg/L	0.70035	4.06	
* Iron, Dissolved	2/23/23 13:36	2/27/23 12:22		1.015	3.54	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:22		1.015	0.287	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 14:10		10.15	187	mg/L	0.21315	4.06	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:22		1	15.1	mg/L			
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:22		1.015	7.05	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/23/23 13:36	2/27/23 14:10		10.15	146	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Total	2/24/23 13:19	2/27/23 18:09		1.015	0.00455	mg/L	0.000081	0.000203	
* Barium, Total	2/24/23 13:19	2/27/23 18:09		1.015	0.0198	mg/L	0.000508	0.001015	
* Beryllium, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/24/23 13:19	2/27/23 18:09		1.015	0.000114	mg/L	0.000068	0.000203	J
* Lead, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/24/23 13:19	2/27/23 18:09		1.015	0.478	mg/L	0.000152	0.001015	
* Molybdenum, Total	2/24/23 13:19	2/27/23 18:09		1.015	0.00304	mg/L	0.000102	0.000203	
* Potassium, Total	2/24/23 13:19	2/27/23 18:09		1.015	7.31	mg/L	0.169505	0.5075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 2/22/23 12:35
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04088

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 18:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	0.00423	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	0.0174	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 10:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	0.0000949	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	0.425	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	0.00288	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	6.49	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:40	2/24/23 11:40		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	293	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/23/23 13:45	2/24/23 13:45		1	2240	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	292	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	0.615	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/24/23 00:19	2/24/23 00:19		1	4.80	mg/L	1.00	2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF

Collected: 2/22/23 12:35

Customer ID:

Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04088

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 14:55	2/24/23 14:55		8	34.3	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 13:04	2/27/23 13:04		1	0.199	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:27	3/1/23 14:27		80	1340	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/22/23 12:32	2/22/23 12:32			2671.70	uS/cm			FA
pH	2/22/23 12:32	2/22/23 12:32			6.95	SU			FA
Temperature	2/22/23 12:32	2/22/23 12:32			22.78	C			FA
Turbidity	2/22/23 12:32	2/22/23 12:32			1.96	NTU			FA
Sulfide	2/22/23 12:32	2/22/23 12:32			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/22/23 12:35
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BD04088

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0
BD04088	Aluminum, Total	mg/L	0.000405	0.0198	0.100	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0
BD04088	Antimony, Total	mg/L	0.000397	0.00100	0.100	0.108	0.117	0.0988	0.0850 to 0.115	108	70.0 to 130	8.00	20.0
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0
BD04088	Arsenic, Total	mg/L	0.0000097	0.000200	0.100	0.104	0.111	0.0999	0.0850 to 0.115	99.4	70.0 to 130	6.51	20.0
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0
BD04088	Barium, Total	mg/L	-0.0000132	0.00100	0.100	0.127	0.136	0.107	0.0850 to 0.115	107	70.0 to 130	6.84	20.0
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0
BD04088	Beryllium, Total	mg/L	0.0000113	0.000880	0.100	0.0983	0.101	0.0997	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD04088	Boron, Total	mg/L	-0.00347	0.0650	1.00	1.18	1.17	1.00	0.850 to 1.15	103	70.0 to 130	0.851	20.0
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0
BD04088	Cadmium, Total	mg/L	0.0000042	0.000147	0.100	0.0992	0.106	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.63	20.0
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0
BD04088	Calcium, Total	mg/L	-0.0229	0.152	5.00	312	300	4.80	4.25 to 5.75	300	70.0 to 130	3.92	20.0
BD04088	Chloride	mg/L	0.0239	1.00	80.0	121	114	10.0	9.00 to 11.0	108	80.0 to 120	5.96	20.0
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0
BD04088	Chromium, Total	mg/L	0.0000667	0.000440	0.100	0.100	0.104	0.106	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0
BD04088	Cobalt, Total	mg/L	0.0000023	0.000147	0.100	0.104	0.109	0.112	0.0850 to 0.115	104	70.0 to 130	4.69	20.0
BD04088	Fluoride	mg/L	0.0375	0.125	2.50	2.77	2.78	2.62	2.25 to 2.75	103	80.0 to 120	0.360	20.0
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0
BD04088	Iron, Total	mg/L	0.000927	0.0176	0.2	4.48	4.16	0.200	0.170 to 0.230	220	70.0 to 130	7.41	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 12:35

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BD04088

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04088	Lead, Total	mg/L	0.000011	0.000147	0.100	0.109	0.112	0.112	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04088	Lithium, Total	mg/L	-0.000337	0.0154	0.200	0.483	0.481	0.198	0.170 to 0.230	102	70.0 to 130	0.415	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04088	Magnesium, Total	mg/L	-0.00494	0.0462	5.00	203	196	5.01	4.25 to 5.75	240	70.0 to 130	3.51	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04088	Manganese, Total	mg/L	-0.0000306	0.00033	0.100	0.570	0.596	0.107	0.0850 to 0.115	92.0	70.0 to 130	4.46	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04088	Molybdenum, Total	mg/L	0.000028	0.0002	0.100	0.105	0.112	0.103	0.0850 to 0.115	102	70.0 to 130	6.45	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04088	Potassium, Total	mg/L	0.0259	0.367	10.0	17.5	17.8	10.3	8.50 to 11.5	102	70.0 to 130	1.70	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04088	Selenium, Total	mg/L	0.0000768	0.00100	0.100	0.0994	0.106	0.103	0.0850 to 0.115	99.4	70.0 to 130	6.43	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04088	Silicon, Total	mg/L	0.000121	0.0440	1.00	8.10	8.05	0.995	0.850 to 1.15	99.0	70.0 to 130	0.619	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04088	Sodium, Total	mg/L	-0.000766	0.0880	5.00	162	157	4.88	4.25 to 5.75	200	70.0 to 130	3.13	20.0
BD04088	Sulfate	mg/L	0.0257	2.0	1600	2980	3210	18.9	18.0 to 22.0	102	80.0 to 120	7.43	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04088	Thallium, Total	mg/L	0.0000046	0.000147	0.100	0.109	0.113	0.110	0.0850 to 0.115	109	70.0 to 130	3.60	20.0
BD04088	Total Organic Carbon	mg/L	0.0453	1.00	10.0	14.8	15.2	27.1		100	80.0 to 120	2.67	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 12:35

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BD04088

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04088	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.97	0.005	1.88	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD04088	Solids, Dissolved	mg/L	1.00	25.0			2260	50.0	40.0 to 60.0			0.889	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 2/22/23 13:47
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04089

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	2/24/23 13:19	2/28/23 12:08		1.015	0.153	mg/L	0.030000	0.1015		
* Calcium, Total	2/24/23 13:19	2/28/23 15:05		101.5	304	mg/L	7.0035	40.6	RA	
* Iron, Total	2/24/23 13:19	2/28/23 15:05		101.5	164	mg/L	0.8120	4.06	RA	
* Lithium, Total	2/24/23 13:19	2/28/23 12:08		1.015	0.0615	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/24/23 13:19	2/28/23 15:05		101.5	342	mg/L	2.1315	40.6	RA	
* Silica, Total (calc.)	2/24/23 13:19	2/28/23 12:08		1	30.8	mg/L				
* Silicon, Total	2/24/23 13:19	2/28/23 12:08		1.015	14.4	mg/L	0.02030	0.25375		
* Sodium, Total	2/24/23 13:19	2/28/23 15:05		101.5	44.8	mg/L	3.045	40.6	RA	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	2/23/23 13:36	2/27/23 12:25		1.015	0.148	mg/L	0.030000	0.1015		
* Calcium, Dissolved	2/23/23 13:36	2/27/23 14:13		101.5	325	mg/L	7.0035	40.6	RA	
* Iron, Dissolved	2/23/23 13:36	2/27/23 14:13		101.5	158	mg/L	0.8120	4.06	RA	
* Lithium, Dissolved	2/23/23 13:36	2/27/23 12:25		1.015	0.0613	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/23/23 13:36	2/27/23 14:13		101.5	379	mg/L	2.1315	40.6	RA	
* Silica, Dissolved (calc.)	2/23/23 13:36	2/27/23 12:25		1	30.6	mg/L				
* Silicon, Dissolved	2/23/23 13:36	2/27/23 12:25		1.015	14.3	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/23/23 13:36	2/27/23 14:13		101.5	50.8	mg/L	3.045	40.6	RA	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	2/24/23 13:19	2/27/23 18:38		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/24/23 13:19	2/27/23 18:38		1.015	Not Detected	mg/L	0.006090	0.05075	U	
* Arsenic, Total	2/24/23 13:19	2/27/23 18:38		1.015	0.0651	mg/L	0.000081	0.000203		
* Barium, Total	2/24/23 13:19	2/27/23 18:38		1.015	0.0131	mg/L	0.000508	0.001015		
* Beryllium, Total	2/24/23 13:19	2/27/23 18:38		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/24/23 13:19	2/27/23 18:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/24/23 13:19	2/27/23 18:38		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/24/23 13:19	2/27/23 18:38		1.015	0.0535	mg/L	0.000068	0.000203		
* Lead, Total	2/24/23 13:19	2/27/23 18:38		1.015	0.000214	mg/L	0.000068	0.000203		
* Manganese, Total	2/24/23 13:19	2/27/23 19:49		92.365	17.2	mg/L	0.013855	0.092365	RA	
* Molybdenum, Total	2/24/23 13:19	2/27/23 18:38		1.015	0.000131	mg/L	0.000102	0.000203	J	
* Potassium, Total	2/24/23 13:19	2/27/23 18:38		1.015	22.8	mg/L	0.169505	0.5075		

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite precision, matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 2/22/23 13:47
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04089

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/24/23 13:19	2/27/23 18:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/24/23 13:19	2/27/23 18:38		1.015	0.000112	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	Not Detected	mg/L	0.006090	0.05075	U
* Arsenic, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	0.0599	mg/L	0.000081	0.000203	
* Barium, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	0.0105	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/23/23 13:36	2/28/23 11:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	0.0438	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	0.0000924	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	2/23/23 13:36	2/28/23 12:24		92.365	20.7	mg/L	0.013855	0.092365	RA
* Molybdenum, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	0.000455	mg/L	0.000102	0.000203	
* Potassium, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	18.2	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/23/23 13:36	2/23/23 16:28		1.015	0.000107	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	2/27/23 19:37	2/28/23 03:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	2/24/23 11:42	2/24/23 11:42		1	0.298	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	3/6/23 13:15	3/6/23 14:40		1	214	mg CaCO3/L			
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	2/24/23 10:25	2/27/23 13:48		1	3880	mg/L		208.3	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	214	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	3/6/23 13:15	3/6/23 14:40		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	2/24/23 01:38	2/24/23 01:38		1	15.6	mg/L	1.00	2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite precision, matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 2/22/23 13:47
Customer ID:
Submittal Date: 2/23/23 11:07

Laboratory ID Number: BD04089

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/24/23 15:07	2/24/23 15:07		1	10.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/27/23 13:15	2/27/23 13:15		1	0.239	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	3/1/23 14:39	3/1/23 14:39		100	2440	mg/L	60.0	200	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/22/23 13:44	2/22/23 13:44			3585.09	uS/cm			FA
pH	2/22/23 13:44	2/22/23 13:44			5.72	SU			FA
Temperature	2/22/23 13:44	2/22/23 13:44			21.83	C			FA
Turbidity	2/22/23 13:44	2/22/23 13:44			3.81	NTU			FA
Sulfide	2/22/23 13:44	2/22/23 13:44			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite precision, matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 2/22/23 13:47
Customer ID:
Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BD04089

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD04089	Aluminum, Dissolved	mg/L	-0.000276	0.0198	0.100	0.0922	0.0981	0.0965	0.0850 to 0.115	92.2	70.0 to 130	6.20	20.0	
BD04089	Aluminum, Total	mg/L	0.000636	0.0198	0.100	0.105	0.103	0.101	0.0850 to 0.115	105	70.0 to 130	1.92	20.0	
BD04089	Antimony, Dissolved	mg/L	0.000346	0.00100	0.100	0.0972	0.101	0.0904	0.0850 to 0.115	97.2	70.0 to 130	3.83	20.0	
BD04089	Antimony, Total	mg/L	0.000349	0.00100	0.100	0.108	0.109	0.0963	0.0850 to 0.115	108	70.0 to 130	0.922	20.0	
BD04089	Arsenic, Dissolved	mg/L	-0.0000191	0.000200	0.100	0.167	0.164	0.0960	0.0850 to 0.115	107	70.0 to 130	1.81	20.0	
BD04089	Arsenic, Total	mg/L	0.0000129	0.000200	0.100	0.168	0.165	0.0992	0.0850 to 0.115	103	70.0 to 130	1.80	20.0	
BD04089	Barium, Dissolved	mg/L	-0.0000092	0.00100	0.100	0.105	0.109	0.0954	0.0850 to 0.115	94.5	70.0 to 130	3.74	20.0	
BD04089	Barium, Total	mg/L	-0.000013	0.00100	0.100	0.118	0.120	0.106	0.0850 to 0.115	105	70.0 to 130	1.68	20.0	
BD04089	Beryllium, Dissolved	mg/L	0.0000161	0.000880	0.100	0.0944	0.0957	0.108	0.0850 to 0.115	94.4	70.0 to 130	1.37	20.0	
BD04089	Beryllium, Total	mg/L	0.0000082	0.000880	0.100	0.0951	0.0984	0.104	0.0850 to 0.115	95.1	70.0 to 130	3.41	20.0	
BD04089	Boron, Dissolved	mg/L	-0.00311	0.0650	1.00	1.18	1.18	1.01	0.850 to 1.15	103	70.0 to 130	0.00	20.0	
BD04089	Boron, Total	mg/L	0.000025	0.0650	1.00	1.13	1.14	0.992	0.850 to 1.15	97.7	70.0 to 130	0.881	20.0	
BD04089	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0912	0.0945	0.0975	0.0850 to 0.115	91.2	70.0 to 130	3.55	20.0	
BD04089	Cadmium, Total	mg/L	0.0000068	0.000147	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0	
BD04089	Calcium, Dissolved	mg/L	-0.0143	0.152	5.00	312	312	5.07	4.25 to 5.75	-260	70.0 to 130	0.00	20.0	
BD04089	Calcium, Total	mg/L	-0.0162	0.152	5.00	310	315	4.84	4.25 to 5.75	120	70.0 to 130	1.60	20.0	
BD04089	Chloride	mg/L	0.0485	1.00	10.0	19.9	20.1	9.94	9.00 to 11.0	90.0	80.0 to 120	1.00	20.0	
BD04089	Chromium, Dissolved	mg/L	-0.0000558	0.000440	0.100	0.0928	0.0973	0.0989	0.0850 to 0.115	92.8	70.0 to 130	4.73	20.0	
BD04089	Chromium, Total	mg/L	0.0000069	0.000440	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0	
BD04089	Cobalt, Dissolved	mg/L	-0.0000015	0.000147	0.100	0.139	0.146	0.0995	0.0850 to 0.115	95.2	70.0 to 130	4.91	20.0	
BD04089	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.161	0.157	0.108	0.0850 to 0.115	108	70.0 to 130	2.52	20.0	
BD04089	Fluoride	mg/L	0.0293	0.125	2.50	2.69	2.71	2.51	2.25 to 2.75	98.0	80.0 to 120	0.741	20.0	
BD04089	Iron, Dissolved	mg/L	-0.000232	0.0176	0.2	163	167	0.202	0.170 to 0.230	2500	70.0 to 130	2.42	20.0	
BD04089	Iron, Total	mg/L	0.000997	0.0176	0.2	164	165	0.202	0.170 to 0.230	0.00	70.0 to 130	0.608	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite precision, matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 13:47

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BD04089

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD04089	Lead, Dissolved	mg/L	0.000017	0.000147	0.100	0.102	0.104	0.100	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD04089	Lead, Total	mg/L	0.000059	0.000147	0.100	0.108	0.108	0.111	0.0850 to 0.115	108	70.0 to 130	0.00	20.0
BD04089	Lithium, Dissolved	mg/L	0.000766	0.0154	0.200	0.280	0.277	0.194	0.170 to 0.230	109	70.0 to 130	1.08	20.0
BD04089	Lithium, Total	mg/L	-0.000372	0.0154	0.200	0.277	0.275	0.202	0.170 to 0.230	108	70.0 to 130	0.725	20.0
BD04089	Magnesium, Dissolved	mg/L	-0.0245	0.0462	5.00	359	358	5.09	4.25 to 5.75	-400	70.0 to 130	0.279	20.0
BD04089	Magnesium, Total	mg/L	-0.00153	0.0462	5.00	344	348	5.01	4.25 to 5.75	40.0	70.0 to 130	1.16	20.0
BD04089	Manganese, Dissolved	mg/L	0.0000252	0.00033	0.100	21.2	20.9	0.0997	0.0850 to 0.115	500	70.0 to 130	1.43	20.0
BD04089	Manganese, Total	mg/L	0.0000492	0.00033	0.100	20.6	19.4	0.103	0.0850 to 0.115	3400	70.0 to 130	6.00	20.0
BD04089	Mercury, Total by CVAA	mg/L	-1.000E-05	0.000500	0.004	0.00367	0.00372	0.00348	0.00340 to 0.00460	91.8	70.0 to 130	1.35	20.0
BD04089	Molybdenum, Dissolved	mg/L	0.0000079	0.0002	0.100	0.0939	0.0976	0.0972	0.0850 to 0.115	93.4	70.0 to 130	3.86	20.0
BD04089	Molybdenum, Total	mg/L	0.0000215	0.0002	0.100	0.105	0.105	0.102	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD04089	Potassium, Dissolved	mg/L	-0.00373	0.367	10.0	29.3	31.0	9.85	8.50 to 11.5	111	70.0 to 130	5.64	20.0
BD04089	Potassium, Total	mg/L	0.0422	0.367	10.0	34.9	34.6	10.3	8.50 to 11.5	121	70.0 to 130	0.863	20.0
BD04089	Selenium, Dissolved	mg/L	-0.0000434	0.00100	0.100	0.111	0.107	0.101	0.0850 to 0.115	111	70.0 to 130	3.67	20.0
BD04089	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.105	0.103	0.101	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD04089	Silicon, Dissolved	mg/L	-0.000019	0.0440	1.00	15.2	15.2	1.01	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD04089	Silicon, Total	mg/L	-0.000001	0.0440	1.00	15.4	15.3	1.00	0.850 to 1.15	100	70.0 to 130	0.651	20.0
BD04089	Sodium, Dissolved	mg/L	-0.00164	0.0880	5.00	44.2	48.6	4.91	4.25 to 5.75	-132	70.0 to 130	9.48	20.0
BD04089	Sodium, Total	mg/L	-0.000232	0.0880	5.00	47.2	47.8	5.08	4.25 to 5.75	48.0	70.0 to 130	1.26	20.0
BD04089	Sulfate	mg/L	0.221	2.0	2000	4490	4440	18.9	18.0 to 22.0	102	80.0 to 120	1.12	20.0
BD04089	Thallium, Dissolved	mg/L	-0.0000047	0.000147	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BD04089	Thallium, Total	mg/L	0.0000032	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD04089	Total Organic Carbon	mg/L	0.0531	1.00	10.0	26.1	25.6	25.8		105	80.0 to 120	1.93	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite precision, matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 2/22/23 13:47

Customer ID:

Delivery Date: 2/23/23 11:07

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BD04089

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD04089	Alkalinity to pH 4.5	mg CaCO3/L					214	50.4	45.0 to 55.0			0.00	10.0
BD04089	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.81	0.378	1.88	1.80 to 2.20	75.6	90.0 to 110	23.7	15.0
BD04089	Solids, Dissolved	mg/L	2.00	25.0			3860	54.0	40.0 to 60.0			0.517	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite precision, matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Definitions

Project Number: WMWGORLF_1399

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
A	Bicarbonate alkalinity, carbonate alkalinity, hydroxide alkalinity, free carbon dioxide, and/or total carbon dioxide calculations are estimates due to pH>10SU and/or TDS>500mg/L.
C	Analyte was verified by re-analysis.
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
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.



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA

Requested Complete Date
Collector

Results To
Requested By
Location

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5	02/21/2023	12:22	6	Groundwater		BD04069	<input checked="" type="checkbox"/>
MW-7	02/21/2023	14:25	6	Groundwater		BD04070	<input checked="" type="checkbox"/>
MW-8	02/21/2023	15:40	6	Groundwater		BD04071	<input checked="" type="checkbox"/>
MW-6	02/22/2023	13:20	6	Groundwater		BD04072	<input checked="" type="checkbox"/>
FB-2	02/22/2023	14:10	5	Field Blank		BD04073	<input checked="" type="checkbox"/>
MW-10	02/22/2023	14:30	6	Groundwater		BD04074	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		02/22/2023 16:30
		02/23/2023 08:38

SmarTroll ID	<input type="text" value="7586-41445-5-4"/>	Cooler Temp	<input type="text" value="1.1 °C"/>
Turbidity ID	<input type="text" value="4677-23343-4-2"/>	Thermometer ID	<input type="text" value="10614-61208-2-1"/>
Sample Event	<input type="text" value="1399"/>	pH Strip ID	<input type="text" value="10429-60252-10-8"/>

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



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
	Collector		Dallas Gentry
		Location	Gorgas Landfill

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments: Changed collection time from 1510 to 1435 on EB-1 per sample container. BC 02/23/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-13	02/20/2023	11:02	6	Groundwater		BD04075	<input checked="" type="checkbox"/>
MW-14	02/20/2023	12:02	6	Groundwater		BD04076	<input checked="" type="checkbox"/>
MW-15	02/20/2023	13:17	6	Groundwater		BD04077	<input checked="" type="checkbox"/>
MW-16	02/20/2023	14:45	6	Groundwater		BD04078	<input checked="" type="checkbox"/>
MW-16 dup	02/20/2023	14:45	6	Sample Duplicate		BD04079	<input checked="" type="checkbox"/>
FB-1	02/20/2023	15:10	5	Field Blank		BD04080	<input checked="" type="checkbox"/>
MW-17R	02/21/2023	10:38	6	Groundwater		BD04081	<input checked="" type="checkbox"/>
MW-18	02/21/2023	11:40	6	Groundwater		BD04082	<input checked="" type="checkbox"/>
MW-19	02/21/2023	12:46	6	Groundwater		BD04083	<input checked="" type="checkbox"/>
MW-19 dup	02/21/2023	12:46	6	Sample Duplicate		BD04084	<input checked="" type="checkbox"/>
MW-20	02/21/2023	14:00	6	Groundwater		BD04085	<input checked="" type="checkbox"/>
EB-1	02/21/2023	14:35	5	Equipment Blank		BD04086	<input checked="" type="checkbox"/>
MW-11	02/21/2023	15:25	6	Groundwater		BD04087	<input checked="" type="checkbox"/>
MW-12V	02/22/2023	12:35	6	Groundwater		BD04088	<input checked="" type="checkbox"/>
MW-12	02/22/2023	13:47	6	Groundwater		BD04089	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Bruce Cotton</i>	02/23/2023 08:37

SmarTroll ID	7586-41443-5-2	Cooler Temp	1.1 °C
Turbidity ID	9901-57263-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1399	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



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
Collector	TJ Daugherty	Requested By	Greg Dyer
		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: Rad MS/MSD @ MW-10

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5	02/21/2023	12:22	1	Groundwater		BD04090	<input checked="" type="checkbox"/>
MW-7	02/21/2023	14:25	1	Groundwater		BD04091	<input checked="" type="checkbox"/>
MW-8	02/21/2023	15:40	1	Groundwater		BD04092	<input checked="" type="checkbox"/>
MW-6	02/22/2023	13:20	1	Groundwater		BD04093	<input checked="" type="checkbox"/>
FB-2	02/22/2023	14:10	1	Field Blank		BD04094	<input checked="" type="checkbox"/>
MW-10	02/22/2023	14:30	3	Groundwater		BD04095	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		02/22/2023 16:30
		02/23/2023 08:38

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1399	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



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
	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
 Changed collection time from 1510 to 1435 on EB-1 per sample container. BC 02/23/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-13	02/20/2023	11:02	1	Groundwater		BD04096	<input checked="" type="checkbox"/>
MW-14	02/20/2023	12:02	3	Groundwater		BD04097	<input checked="" type="checkbox"/>
MW-15	02/20/2023	13:17	1	Groundwater		BD04098	<input checked="" type="checkbox"/>
MW-16	02/20/2023	14:45	1	Groundwater		BD04099	<input checked="" type="checkbox"/>
MW-16 dup	02/20/2023	14:45	1	Sample Duplicate		BD04100	<input checked="" type="checkbox"/>
FB-1	02/20/2023	15:10	1	Field Blank		BD04101	<input checked="" type="checkbox"/>
MW-17R	02/21/2023	10:38	1	Groundwater		BD04102	<input checked="" type="checkbox"/>
MW-18	02/21/2023	11:40	1	Groundwater		BD04103	<input checked="" type="checkbox"/>
MW-19	02/21/2023	12:46	1	Groundwater		BD04104	<input checked="" type="checkbox"/>
MW-19 dup	02/21/2023	12:46	1	Sample Duplicate		BD04105	<input checked="" type="checkbox"/>
MW-20	02/21/2023	14:00	1	Groundwater		BD04106	<input checked="" type="checkbox"/>
EB-1	02/21/2023	14:35	1	Equipment Blank		BD04107	<input checked="" type="checkbox"/>
MW-11	02/21/2023	15:25	1	Groundwater		BD04108	<input checked="" type="checkbox"/>
MW-12V	02/22/2023	12:35	1	Groundwater		BD04109	<input checked="" type="checkbox"/>
MW-12	02/22/2023	13:47	1	Groundwater		BD04110	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Breanne Catton</i>	02/23/2023 08:37

SmarTroll ID	7586-41443-5-2	Cooler Temp	N/A
Turbidity ID	9901-57263-1-1	Thermometer ID	N/A
Sample Event	1399	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks

April 18, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWGORLF_1399
Pace Project No.: 30566801

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on March 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

Greensburg, PA - Revision 1 - This report replaces the April 17, 2023 report. This project was revised on April 18, 2023 to add Rad QC sheets to the report.

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

Sincerely,



Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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

Project: WMWGORLF_1399
Pace Project No.: 30566801

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30566801001	BD04090 MW-5	Water	02/21/23 12:22	03/02/23 11:00
30566801002	BD04091 MW-7	Water	02/21/23 14:25	03/02/23 11:00
30566801003	BD04092 MW-8	Water	02/21/23 15:40	03/02/23 11:00
30566801004	BD04093 MW-6	Water	02/22/23 13:20	03/02/23 11:00
30566801005	BD04094 FB-2	Water	02/22/23 14:10	03/02/23 11:00
30566801006	BD04095 MW-10	Water	02/22/23 14:30	03/02/23 11:00
30566801007	BD04095 MW-10 MS	Water	02/22/23 14:30	03/02/23 11:00
30566801008	BD04095 MW-10 MSD	Water	02/22/23 14:30	03/02/23 11:00
30566801009	BD04096 MW-13	Water	02/20/23 11:02	03/02/23 11:00
30566801010	BD04097 MW-14	Water	02/20/23 12:02	03/02/23 11:00
30566801011	BD04097 MW-14 MS	Water	02/20/23 12:02	03/02/23 11:00
30566801012	BD04097 MW-14 MSD	Water	02/20/23 12:02	03/02/23 11:00
30566801013	BD04098 MW-15	Water	02/20/23 13:17	03/02/23 11:00
30566801014	BD04099 MW-16	Water	02/20/23 14:45	03/02/23 11:00
30566801015	BD04100 MW-16 Dup	Water	02/20/23 14:45	03/02/23 11:00
30566801016	BD04101 FB-1	Water	02/20/23 15:10	03/02/23 11:00
30566801017	BD04102 MW-17R	Water	02/21/23 10:38	03/02/23 11:00
30566801018	BD04103 MW-18	Water	02/21/23 11:40	03/02/23 11:00
30566801019	BD04104 MW-19	Water	02/21/23 12:46	03/02/23 11:00
30566801020	BD04105 MW-19 Dup	Water	02/21/23 12:46	03/02/23 11:00
30566801021	BD04106 MW-20	Water	02/21/23 14:00	03/02/23 11:00
30566801022	BD04107 EB-1	Water	02/21/23 14:35	03/02/23 11:00
30566801023	BD04108 MW-11	Water	02/21/23 15:25	03/02/23 11:00
30566801024	BD04109 MW-12V	Water	02/22/23 12:35	03/02/23 11:00
30566801025	BD04110 MW-12	Water	02/22/23 13:47	03/02/23 11:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWGORLF_1399
Pace Project No.: 30566801

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30566801001	BD04090 MW-5	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801002	BD04091 MW-7	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801003	BD04092 MW-8	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801004	BD04093 MW-6	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801005	BD04094 FB-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801006	BD04095 MW-10	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801007	BD04095 MW-10 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801008	BD04095 MW-10 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801009	BD04096 MW-13	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801010	BD04097 MW-14	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801011	BD04097 MW-14 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801012	BD04097 MW-14 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801013	BD04098 MW-15	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30566801014	BD04099 MW-16	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: WMWGORLF_1399
Pace Project No.: 30566801

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30566801015	BD04100 MW-16 Dup	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801016	BD04101 FB-1	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801017	BD04102 MW-17R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801018	BD04103 MW-18	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801019	BD04104 MW-19	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801020	BD04105 MW-19 Dup	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801021	BD04106 MW-20	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801022	BD04107 EB-1	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801023	BD04108 MW-11	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801024	BD04109 MW-12V	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30566801025	BD04110 MW-12	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: WMWGORLF_1399

Pace Project No.: 30566801

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: April 18, 2023

General Information:

25 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWGORLF_1399

Pace Project No.: 30566801

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: April 18, 2023

General Information:

25 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWGORLF_1399

Pace Project No.: 30566801

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Alabama Power

Date: April 18, 2023

General Information:

21 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04090 MW-5 **Lab ID: 30566801001** Collected: 02/21/23 12:22 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.184U ± 0.138 (0.230) C:97% T:NA	pCi/L	03/29/23 20:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0909U ± 0.313 (0.709) C:79% T:88%	pCi/L	03/10/23 16:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.275U ± 0.451 (0.939)	pCi/L	03/30/23 14:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04091 MW-7 **Lab ID: 30566801002** Collected: 02/21/23 14:25 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.108U ± 0.156 (0.339) C:99% T:NA	pCi/L	03/29/23 20:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.681U ± 0.402 (0.732) C:80% T:79%	pCi/L	03/10/23 16:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.789U ± 0.558 (1.07)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04092 MW-8 **Lab ID: 30566801003** Collected: 02/21/23 15:40 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0337U ± 0.0976 (0.240) C:97% T:NA	pCi/L	03/29/23 20:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	2.16 ± 0.607 (0.678) C:78% T:96%	pCi/L	03/10/23 16:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.19 ± 0.705 (0.918)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04093 MW-6 **Lab ID: 30566801004** Collected: 02/22/23 13:20 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.250U ± 0.167 (0.263) C:98% T:NA	pCi/L	03/29/23 20:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	3.50 ± 0.841 (0.673) C:78% T:89%	pCi/L	03/10/23 16:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	3.75 ± 1.01 (0.936)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04094 FB-2 **Lab ID: 30566801005** Collected: 02/22/23 14:10 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0570U ± 0.132 (0.312) C:95% T:NA	pCi/L	03/29/23 20:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.57 ± 0.509 (0.654) C:78% T:91%	pCi/L	03/10/23 16:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.63 ± 0.641 (0.966)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04095 MW-10 **Lab ID: 30566801006** Collected: 02/22/23 14:30 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0867U ± 0.126 (0.273) C:91% T:NA	pCi/L	03/29/23 20:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.717 ± 0.378 (0.667) C:78% T:92%	pCi/L	03/10/23 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.804U ± 0.504 (0.940)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04095 MW-10 MS **Lab ID: 30566801007** Collected: 02/22/23 14:30 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	97.53 %REC ± NA (NA) C:NA T:NA	pCi/L	03/29/23 20:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	77.04 %REC ± NA (NA) C:NA T:NA	pCi/L	03/10/23 16:06	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04095 MW-10 MSD **Lab ID: 30566801008** Collected: 02/22/23 14:30 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	104.24 %REC 6.66RPD ± NA (NA) C:NA T:NA	pCi/L	03/29/23 20:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	86.03 %REC 11.02RPD ± NA (NA) C:NA T:NA	pCi/L	03/10/23 16:06	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04096 MW-13 **Lab ID: 30566801009** Collected: 02/20/23 11:02 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.138U ± 0.166 (0.349) C:96% T:NA	pCi/L	03/29/23 20:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.09 ± 0.450 (0.703) C:75% T:88%	pCi/L	03/10/23 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.23 ± 0.616 (1.05)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04097 MW-14 **Lab ID: 30566801010** Collected: 02/20/23 12:02 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	-0.0892U ± 0.0623 (0.287) C:95% T:NA	pCi/L	03/30/23 09:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.625 ± 0.332 (0.577) C:80% T:89%	pCi/L	03/13/23 13:13	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.625U ± 0.394 (0.864)	pCi/L	03/30/23 15:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04097 MW-14 MS **Lab ID: 30566801011** Collected: 02/20/23 12:02 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	88.31 %REC ± NA (NA) C:NA T:NA	pCi/L	03/30/23 09:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	80.65 %REC ± NA (NA) C:NA T:NA	pCi/L	03/13/23 13:13	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04097 MW-14 MSD **Lab ID: 30566801012** Collected: 02/20/23 12:02 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	103.42 %REC 15.76RPD ± NA (NA) C:NA T:NA	pCi/L	03/30/23 09:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	65.1 %REC 21.34RPD ± NA (NA) C:NA T:NA	pCi/L	03/13/23 13:13	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04098 MW-15 **Lab ID: 30566801013** Collected: 02/20/23 13:17 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0764U ± 0.131 (0.296) C:99% T:NA	pCi/L	03/29/23 20:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.739 ± 0.392 (0.693) C:75% T:94%	pCi/L	03/10/23 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.815U ± 0.523 (0.989)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04099 MW-16 **Lab ID: 30566801014** Collected: 02/20/23 14:45 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0563U ± 0.0906 (0.198) C:98% T:NA	pCi/L	03/29/23 19:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.164U ± 0.336 (0.742) C:73% T:92%	pCi/L	03/10/23 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.220U ± 0.427 (0.940)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04100 MW-16 Dup **Lab ID: 30566801015** Collected: 02/20/23 14:45 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.155U ± 0.132 (0.232) C:99% T:NA	pCi/L	03/29/23 20:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.344U ± 0.329 (0.668) C:80% T:89%	pCi/L	03/10/23 16:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.499U ± 0.461 (0.900)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04101 FB-1 **Lab ID: 30566801016** Collected: 02/20/23 15:10 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0664U ± 0.124 (0.283) C:99% T:NA	pCi/L	03/29/23 21:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.285U ± 0.301 (0.621) C:78% T:92%	pCi/L	03/10/23 16:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.351U ± 0.425 (0.904)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04102 MW-17R **Lab ID: 30566801017** Collected: 02/21/23 10:38 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.121U ± 0.141 (0.286) C:99% T:NA	pCi/L	03/29/23 21:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.286U ± 0.283 (0.581) C:76% T:107%	pCi/L	03/10/23 16:08	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.407U ± 0.424 (0.867)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04103 MW-18 **Lab ID: 30566801018** Collected: 02/21/23 11:40 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.187U ± 0.164 (0.299) C:98% T:NA	pCi/L	03/29/23 21:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.416U ± 0.341 (0.671) C:72% T:90%	pCi/L	03/10/23 16:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.603U ± 0.505 (0.970)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04104 MW-19 **Lab ID: 30566801019** Collected: 02/21/23 12:46 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	-0.0227U ± 0.0771 (0.248) C:100% T:NA	pCi/L	03/29/23 20:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.535U ± 0.342 (0.631) C:76% T:90%	pCi/L	03/10/23 16:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.535U ± 0.419 (0.879)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04105 MW-19 Dup **Lab ID: 30566801020** Collected: 02/21/23 12:46 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.181U ± 0.151 (0.263) C:95% T:NA	pCi/L	03/30/23 09:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.319U ± 0.330 (0.679) C:75% T:87%	pCi/L	03/10/23 16:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.500U ± 0.481 (0.942)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04106 MW-20 **Lab ID: 30566801021** Collected: 02/21/23 14:00 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.328 ± 0.205 (0.312) C:97% T:NA	pCi/L	03/30/23 09:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.830 ± 0.395 (0.669) C:77% T:98%	pCi/L	03/10/23 16:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.16 ± 0.600 (0.981)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04107 EB-1 **Lab ID: 30566801022** Collected: 02/21/23 14:35 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.167U ± 0.140 (0.247) C:98% T:NA	pCi/L	03/30/23 09:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0881U ± 0.345 (0.783) C:75% T:88%	pCi/L	03/10/23 16:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.255U ± 0.485 (1.03)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04108 MW-11 **Lab ID: 30566801023** Collected: 02/21/23 15:25 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.280U ± 0.194 (0.324) C:91% T:NA	pCi/L	03/30/23 09:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.419U ± 0.402 (0.823) C:72% T:87%	pCi/L	03/10/23 16:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.699U ± 0.596 (1.15)	pCi/L	03/30/23 14:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04109 MW-12V **Lab ID: 30566801024** Collected: 02/22/23 12:35 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.139U ± 0.169 (0.354) C:97% T:NA	pCi/L	03/30/23 08:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.643 ± 0.329 (0.571) C:82% T:94%	pCi/L	03/13/23 13:13	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.782U ± 0.498 (0.925)	pCi/L	03/30/23 15:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

Sample: BD04110 MW-12 **Lab ID: 30566801025** Collected: 02/22/23 13:47 Received: 03/02/23 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.186U ± 0.158 (0.291) C:98% T:NA	pCi/L	03/30/23 08:29	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.864 ± 0.387 (0.619) C:79% T:92%	pCi/L	03/13/23 17:07	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.05 ± 0.545 (0.910)	pCi/L	03/30/23 15:00	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

QC Batch: 571662

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30566801010, 30566801011, 30566801012, 30566801024, 30566801025

METHOD BLANK: 2775793

Matrix: Water

Associated Lab Samples: 30566801010, 30566801011, 30566801012, 30566801024, 30566801025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0310 ± 0.0800 (0.192) C:94% T:NA	pCi/L	03/30/23 09:42	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

QC Batch: 571663

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30566801010, 30566801011, 30566801012, 30566801024, 30566801025

METHOD BLANK: 2775794

Matrix: Water

Associated Lab Samples: 30566801010, 30566801011, 30566801012, 30566801024, 30566801025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0779 ± 0.273 (0.657) C:80% T:89%	pCi/L	03/13/23 13:13	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

QC Batch: 571658

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30566801001, 30566801002, 30566801003, 30566801004, 30566801005, 30566801006, 30566801007, 30566801008, 30566801009, 30566801013, 30566801014, 30566801015, 30566801016, 30566801017, 30566801018, 30566801019, 30566801020, 30566801021, 30566801022, 30566801023

METHOD BLANK: 2775780

Matrix: Water

Associated Lab Samples: 30566801001, 30566801002, 30566801003, 30566801004, 30566801005, 30566801006, 30566801007, 30566801008, 30566801009, 30566801013, 30566801014, 30566801015, 30566801016, 30566801017, 30566801018, 30566801019, 30566801020, 30566801021, 30566801022, 30566801023

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0242 ± 0.0393 (0.143) C:100% T:NA	pCi/L	03/29/23 20:49	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1399

Pace Project No.: 30566801

QC Batch: 571660

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30566801001, 30566801002, 30566801003, 30566801004, 30566801005, 30566801006, 30566801007, 30566801008, 30566801009, 30566801013, 30566801014, 30566801015, 30566801016, 30566801017, 30566801018, 30566801019, 30566801020, 30566801021, 30566801022, 30566801023

METHOD BLANK: 2775784

Matrix: Water

Associated Lab Samples: 30566801001, 30566801002, 30566801003, 30566801004, 30566801005, 30566801006, 30566801007, 30566801008, 30566801009, 30566801013, 30566801014, 30566801015, 30566801016, 30566801017, 30566801018, 30566801019, 30566801020, 30566801021, 30566801022, 30566801023

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.369 ± 0.302 (0.596) C:79% T:94%	pCi/L	03/10/23 16:05	

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QUALIFIERS

Project: WMWGORLF_1399
Pace Project No.: 30566801

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORLF_1399
Pace Project No.: 30566801

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30566801001	BD04090 MW-5	EPA 9315	571658		
30566801002	BD04091 MW-7	EPA 9315	571658		
30566801003	BD04092 MW-8	EPA 9315	571658		
30566801004	BD04093 MW-6	EPA 9315	571658		
30566801005	BD04094 FB-2	EPA 9315	571658		
30566801006	BD04095 MW-10	EPA 9315	571658		
30566801007	BD04095 MW-10 MS	EPA 9315	571658		
30566801008	BD04095 MW-10 MSD	EPA 9315	571658		
30566801009	BD04096 MW-13	EPA 9315	571658		
30566801010	BD04097 MW-14	EPA 9315	571662		
30566801011	BD04097 MW-14 MS	EPA 9315	571662		
30566801012	BD04097 MW-14 MSD	EPA 9315	571662		
30566801013	BD04098 MW-15	EPA 9315	571658		
30566801014	BD04099 MW-16	EPA 9315	571658		
30566801015	BD04100 MW-16 Dup	EPA 9315	571658		
30566801016	BD04101 FB-1	EPA 9315	571658		
30566801017	BD04102 MW-17R	EPA 9315	571658		
30566801018	BD04103 MW-18	EPA 9315	571658		
30566801019	BD04104 MW-19	EPA 9315	571658		
30566801020	BD04105 MW-19 Dup	EPA 9315	571658		
30566801021	BD04106 MW-20	EPA 9315	571658		
30566801022	BD04107 EB-1	EPA 9315	571658		
30566801023	BD04108 MW-11	EPA 9315	571658		
30566801024	BD04109 MW-12V	EPA 9315	571662		
30566801025	BD04110 MW-12	EPA 9315	571662		
30566801001	BD04090 MW-5	EPA 9320	571660		
30566801002	BD04091 MW-7	EPA 9320	571660		
30566801003	BD04092 MW-8	EPA 9320	571660		
30566801004	BD04093 MW-6	EPA 9320	571660		
30566801005	BD04094 FB-2	EPA 9320	571660		
30566801006	BD04095 MW-10	EPA 9320	571660		
30566801007	BD04095 MW-10 MS	EPA 9320	571660		
30566801008	BD04095 MW-10 MSD	EPA 9320	571660		
30566801009	BD04096 MW-13	EPA 9320	571660		
30566801010	BD04097 MW-14	EPA 9320	571663		
30566801011	BD04097 MW-14 MS	EPA 9320	571663		
30566801012	BD04097 MW-14 MSD	EPA 9320	571663		
30566801013	BD04098 MW-15	EPA 9320	571660		
30566801014	BD04099 MW-16	EPA 9320	571660		
30566801015	BD04100 MW-16 Dup	EPA 9320	571660		
30566801016	BD04101 FB-1	EPA 9320	571660		
30566801017	BD04102 MW-17R	EPA 9320	571660		
30566801018	BD04103 MW-18	EPA 9320	571660		
30566801019	BD04104 MW-19	EPA 9320	571660		
30566801020	BD04105 MW-19 Dup	EPA 9320	571660		
30566801021	BD04106 MW-20	EPA 9320	571660		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORLF_1399

Pace Project No.: 30566801

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30566801022	BD04107 EB-1	EPA 9320	571660		
30566801023	BD04108 MW-11	EPA 9320	571660		
30566801024	BD04109 MW-12V	EPA 9320	571663		
30566801025	BD04110 MW-12	EPA 9320	571663		
30566801001	BD04090 MW-5	Total Radium Calculation	577499		
30566801002	BD04091 MW-7	Total Radium Calculation	577499		
30566801003	BD04092 MW-8	Total Radium Calculation	577499		
30566801004	BD04093 MW-6	Total Radium Calculation	577499		
30566801005	BD04094 FB-2	Total Radium Calculation	577499		
30566801006	BD04095 MW-10	Total Radium Calculation	577499		
30566801009	BD04096 MW-13	Total Radium Calculation	577499		
30566801010	BD04097 MW-14	Total Radium Calculation	577500		
30566801013	BD04098 MW-15	Total Radium Calculation	577499		
30566801014	BD04099 MW-16	Total Radium Calculation	577499		
30566801015	BD04100 MW-16 Dup	Total Radium Calculation	577499		
30566801016	BD04101 FB-1	Total Radium Calculation	577499		
30566801017	BD04102 MW-17R	Total Radium Calculation	577499		
30566801018	BD04103 MW-18	Total Radium Calculation	577499		
30566801019	BD04104 MW-19	Total Radium Calculation	577499		
30566801020	BD04105 MW-19 Dup	Total Radium Calculation	577499		
30566801021	BD04106 MW-20	Total Radium Calculation	577499		
30566801022	BD04107 EB-1	Total Radium Calculation	577499		
30566801023	BD04108 MW-11	Total Radium Calculation	577499		
30566801024	BD04109 MW-12V	Total Radium Calculation	577500		
30566801025	BD04110 MW-12	Total Radium Calculation	577500		

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

CHAIN-OF-CUSTODY / Analytical Request Document


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

Section A	Section B	Section C	
Required Client Information:	Required Project Information:	Invoice Information:	
Company: Alabama Power Company	Report To: Brooke Caton	Attention: Brooke Caton	
Address: 744 Highway 87 GSC Bldg #8	Copy To: Renee Jernigan & Blaine Denton	Company Name: Alabama Power Co.	
	Calera, AL 35040	Address: 744 Highway 87 GSC Bldg #8	
Email To: fbwill@southernco.com	Purchase Order #: APC10755838	Pace Quote: CCR	Regulatory Agency:
Phone: 205-664-6247	Project Name: Plant Gorgas CCB Landfills	Pace Project Manager: Skyler Richmond	State / Location: AL
Requested Due Date: Normal	Project Number: WMWGORLF_1399	Pace Profile #: 16788	

ITEM #	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	Matrix Code (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
								START DATE	TIME							
1	BD04080	APCO-GS-CCB-MW-5	APCO_Gorgas_CCB_Landfills				GW	12:22	1	X	X	X	X	X	X	601
2	BD04091	APCO-GS-CCB-MW-7	APCO_Gorgas_CCB_Landfills				GW	14:25	1	X	X	X	X	X	X	602
3	BD04092	APCO-GS-CCB-MW-8	APCO_Gorgas_CCB_Landfills				GW	15:40	1	X	X	X	X	X	X	603
4	BD04093	APCO-GS-CCB-MW-6	APCO_Gorgas_CCB_Landfills				GW	13:20	1	X	X	X	X	X	X	604
5	BD04094	APCO-GS-CCB-FB-02	APCO_Gorgas_CCB_Landfills				GW	14:10	1	X	X	X	X	X	X	605
6	BD04095	APCO-GS-CCB-MW-10	APCO_Gorgas_CCB_Landfills	X			GW	14:30	3	X	X	X	X	X	X	606,007,008
7	BD04096	APCO-GS-CCB-MW-13	APCO_Gorgas_CCB_Landfills				GW	11:02	1	X	X	X	X	X	X	609
8	BD04097	APCO-GS-CCB-MW-14	APCO_Gorgas_CCB_Landfills	X			GW	12:02	3	X	X	X	X	X	X	610,011,012
9	BD04098	APCO-GS-CCB-MW-15	APCO_Gorgas_CCB_Landfills				GW	13:17	1	X	X	X	X	X	X	613
10	BD04099	APCO-GS-CCB-MW-16	APCO_Gorgas_CCB_Landfills				GW	14:45	1	X	X	X	X	X	X	614
11	BD04100	APCO-GS-CCB-MW-16	APCO_Gorgas_CCB_Landfills	X			GW	14:45	1	X	X	X	X	X	X	615
12	BD04101	APCO-GS-CCB-FB-01	APCO_Gorgas_CCB_Landfills				GW	15:10	1	X	X	X	X	X	X	616

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		DATE	TIME	DATE	TIME
		Brooke Caton / APC GTL			2/24/2023	9:46		
					3-22-23	3:23		
					3-22-23	11:00		

WO# : 30566801



30566801

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A	Section B	Section C
Required Client Information: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040 Email To: lbwill@southernco.com Phone: 205-664-6101 Fax: Requested Due Date: Normal	Required Project Information: Report To: Brooke Caton Copy To: Renee Jernigan & Blaine Denton Purchase Order #: APC10755638 Project Name: Plant Gorgas CCB Landfills Project Number: WMWGORLF_1399	Invoice Information: Attention: Brooke Caton Company Name: Alabama Power Co. Address: 744 Highway 87 GSC Bldg #8 CCR Skynet/ Richmond 16788 Regulatory Agency: State / Location: AL

ITEM #	Description	Station Name Location_Code	Site Name Facility_ID	Matrix Spike/Matrix Spike Duplicate	Field Filtered	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Unpreserved	NaOH/ZnAcetate	HMOS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
							DATE	TIME												
1	BD04102	APCO-GS-CCB-MW-17R	APCO_Gorgas_CCBLandfills			GW	G	2/21/2023	10:38	1					X	X	X	X		
2	BD04103	APCO-GS-CCB-MW-18	APCO_Gorgas_CCBLandfills			GW	G	2/21/2023	11:40	1					X	X	X	X		617
3	BD04104	APCO-GS-CCB-MW-19	APCO_Gorgas_CCBLandfills			GW	G	2/21/2023	12:46	1					X	X	X	X		018
4	BD04105	APCO-GS-CCB-MW-19	APCO_Gorgas_CCBLandfills	X		GW	G	2/21/2023	12:46	1					X	X	X	X		019
5	BD04106	APCO-GS-CCB-MW-20	APCO_Gorgas_CCBLandfills			GW	G	2/21/2023	14:00	1					X	X	X	X		020
6	BD04107	APCO-GS-CCB-EB-01	APCO_Gorgas_CCBLandfills			GW	G	2/21/2023	14:35	1					X	X	X	X		021
7	BD04108	APCO-GS-CCB-MW-11	APCO_Gorgas_CCBLandfills			GW	G	2/21/2023	15:25	1					X	X	X	X		022
8	BD04109	APCO-GS-CCB-MW-12V	APCO_Gorgas_CCBLandfills			GW	G	2/22/2023	12:35	1					X	X	X	X		023
9	BD04110	APCO-GS-CCB-MW-12	APCO_Gorgas_CCBLandfills			GW	G	2/22/2023	13:47	1					X	X	X	X		024
10																				
11																				
12																				

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
		Brooke Caton/ APC GTL		2/24/2023		9:46				3-2-23		11:00			

WO#: 30566801

PH: SCR Due Date: 03/30/23
 CLIENT: ALABAMA PWR

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER:

Received on (Y/N)
 Custody Sealed (Y/N)
 Cooler (Y/N)
 Samples (Y/N)
 Intact (Y/N)



DC#_Title: ENV-FRM-GBUR-0088 v04_Sample Condition Upon Receipt-
Pittsburgh

WO#: 30566801

Effective Date: 02/03/2023

PM: SCR Due Date: 03/30/23

CLIENT: ALABAMA PWR

Client Name: Alabama Power Company

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 615402596805

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: _____ Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

Examined By	TH
Labeled By	TH
Temped By	-

Comments:				pH paper Lot#	D.P.D. Residual Chlorine Lot #
	Yes	No	NA	1002221	
Chain of Custody Present	J				
Chain of Custody Filled Out:	J				
-Were client corrections present on COC		J			
Chain of Custody Relinquished	J				
Sampler Name & Signature on COC:	J	J			
Sample Labels match COC:	J				
-Includes date/time/ID					
Matrix:	WT				
Samples Arrived within Hold Time:	J				
Short Hold Time Analysis (<72hr remaining):		J			
Rush Turn Around Time Requested:		J			
Sufficient Volume:	J				
Correct Containers Used:	J				
-Pace Containers Used	J				
Containers Intact:	J				
Orthophosphate field filtered:			J		
Hex Cr Aqueous samples field filtered:			J		
Organic Samples checked for dechlorination			J		
Filtered volume received for dissolved tests:	J				
All containers checked for preservation:					
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix					
All containers meet method preservation requirements:	J			Initial when completed TH	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			J		
624.1: Headspace in VOA Vials (0mm)			J		
Trip Blank Present:			J		Trip blank custody seal present? YES or NO
Rad Samples Screened <0.5 mrem/hr.	J			Initial when completed TH	Date: 3/1/23 Survey Meter SN: 1563
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

16788

Profile Number

Notes

Page 1 of 3

Client

Site Plant Gorgas CB Landfills

Sample Line Item	Amber Glass				Plastic				Vials				Other																
	AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WG9U	WG9V	WG9W	ZPLC	GCUB	GJN	12GN	GN	BG1U		
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

WO#: 30566801

PM: SCR Due Date: 03/30/23
 CLIENT: ALABAMA PMR

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass NA Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO4
AG3U	250mL amber glass unpreserved
DG9S	40mL amber VOA vial H2SO4
VG9U	40mL clear VOA vial
VG9T	40mL clear VOA vial Na Thiosulfate
VG9H	40mL clear VOA vial HCl
JGFU	4oz amber wide jar
WGFU	4oz wide jar unpreserved
BG2U	500mL clear glass unpreserved
AG2U	500mL amber glass unpreserved
WGKU	8oz wide jar unpreserved
GN	General

Plastic/Misc.	
GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	120mL coliform/Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250mL plastic NAOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved
EZI	5g Encore
VOAK	Kit Volatile Solid
I	Wipe/Swab
ZPLC	Siploc Bag
WT	Water
SL	Solid
OL	Non-Aq Liquid
WP	Wipe

Client

Site Plant Georges CB Landfills

Page 2 of 3

Profile Number

16788

Notes

Sample Line Item	Matrix	Amber Glass					Plastic					Vials					Other														
		AG1H	AG3S	AG3U	AG5U	AG5T	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WG9U	WG9V	ZPLC	GCUB	GJN	12GN	GN	BG1U					
13	WT																														
14																															
15																															
16																															
17																															
18																															
19																															
20																															
21																															
22																															
23																															
24																															

WO#: 30566801

PM: SCR Due Date: 03/30/23
 CLIENT: ALABAMA PWR

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass NA Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO4
AG3U	250mL amber glass unpreserved

Plastic/Misc.	
GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	120mL coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250mL plastic NaOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved
EZ1	5g Encore
VOAK	Kit Volatile Solid
I	Wipe/Swab
ZPLC	Siploc Bag
WT	Water
SL	Solid
OL	Non-Aq Liquid
WP	Wipe

Profile Number 16788

Client _____

Site Plant Georgia CUB landfill

Page 3 of 3

Notes _____

Sample Line Item	Amber Glass					Plastic					Vials					Other											
	AG1H	AG3S	AG3U	AG5U	AG5T	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WG9U	WG9T	WG9U	ZPLC	GKUB	GJN	12GN	GN	BG1U	
25					WT																						

WO#: 30566801

PM: SCR Due Date: 03/30/23

CLIENT: ALABAMA PWR

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass NA Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO4
AG3U	250mL amber glass unpreserved
DG9S	40mL amber VOA vial H2SO4
VG9U	40mL clear VOA vial
VG9T	40mL clear VOA vial Na Thiosulfate
VG9H	40mL clear VOA vial HCl
JGFU	4oz amber wide jar
WGFU	4oz wide jar unpreserved
BG2U	500mL clear glass unpreserved
AG2U	500mL amber glass unpreserved
WGKU	8oz wide jar unpreserved
GN	General

Plastic/Misc.	
GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	120mL coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250mL plastic NaOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved
EZI	5g Encore
VOAK	Kit Volatile Solid
I	Wipe/Swab
ZPLC	Siploc Bag
WT	Water
SL	Solid
OL	Non-Aq Liquid
WP	Wipe

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JJS1
Date: 3/7/2023
Worklist: 71855
Matrix: WT

Method Blank Assessment	
MB Sample ID	2775794
MB concentration:	-0.078
M/B 2 Sigma CSU:	0.273
MB MDC:	0.657
MB Numerical Performance Indicator:	-0.56
MB Status vs. Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSID (Y or N)?	N
LCS71855	LCS071855
Count Date:	3/7/2023
Spike I.D.:	22-040
Decay Corrected Spike Concentration (pCi/mL):	33.255
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.801
Target Conc. (pCi/L, g, F):	4.151
Uncertainty (Calculated):	0.203
Result (pCi/L, g, F):	4.630
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.057
Numerical Performance Indicator:	0.87
Percent Recovery:	111.54%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

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

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 2/20/2023
Sample I.D.:	MS/MSD 2 2/21/2023
Sample MS I.D.:	30566801010
Sample MSD I.D.:	30566801011
Spike I.D.:	30566812006
Spike I.D.:	30566812007
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	22-040
Spike Volume Used in MS (mL):	33.489
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.20
MS Target Conc. (pCi/L, g, F):	0.805
MSD Aliquot (L, g, F):	8.318
MSD Target Conc. (pCi/L, g, F):	0.801
MSD Target Conc. (pCi/L, g, F):	8.359
MSD Spike Uncertainty (calculated):	0.409
MSD Spike Uncertainty (calculated):	0.410
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.625
Sample Matrix Spike Result:	0.332
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	7.364
Sample Matrix Spike Duplicate Result:	1.499
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	6.067
MS Numerical Performance Indicator:	1.264
MS Numerical Performance Indicator:	-1.994
MS Percent Recovery:	80.65%
MSD Percent Recovery:	65.10%
MS Status vs Numerical Indicator:	Pass
MSD Status vs Numerical Indicator:	Fail****
MS Status vs Recovery:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30566801010
Sample MS I.D.:	30566801011
Sample MSD I.D.:	30566812007
Sample Matrix Spike Result:	7.217
Sample Matrix Spike Duplicate Result:	1.484
Sample Spike Result 2 Sigma CSU (pCi/L, g, F):	6.067
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.264
Duplicate Numerical Performance Indicator:	1.296
Duplicate Numerical Performance Indicator:	21.34%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	Pass
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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

Comments:

JJS
3/14/23

VAL
3/19/23

Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226
Analyst: SLC
Date: 3/6/2023
Worklist: 71852
Matrix: DW

Method Blank Assessment	
MB Sample ID	2775780
MB concentration:	-0.024
MIB Counting Uncertainty:	0.039
MB MDC:	0.143
MB Numerical Performance Indicator:	-1.21
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD71852	LCSD71852
Count Date:	3/30/2023	3/30/2023
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.018	24.018
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.500	0.501
Target Conc. (pCi/L, g, F):	4.800	4.792
Uncertainty (Calculated):	0.058	0.058
Result (pCi/L, g, F):	4.635	4.831
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.453	0.457
Numerical Performance Indicator:	-0.71	0.17
Percent Recovery:	96.56%	100.81%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	
Sample I.D.:	LCSD71852
Duplicate Sample I.D.:	LCSD71852
Sample Result (pCi/L, g, F):	4.635
Sample Duplicate Result (pCi/L, g, F):	4.453
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	4.831
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.457
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.597
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	4.31%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

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

Comments:

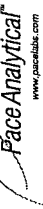
JLJ 3-30-23

SLC 3/30/23 Page 48 of 50

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/22/2023	
Sample I.D.:	30566801006	
Sample MS I.D.:	30566801007	
Sample MSD I.D.:	30566801008	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.019	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.309	
MS Target Conc. (pCi/L, g, F):	15.572	
MSD Aliquot (L, g, F):	0.275	
MSD Target Conc. (pCi/L, g, F):	17.464	
MS Spike Uncertainty (calculated):	0.187	
MSD Spike Uncertainty (calculated):	0.210	
Sample Result:	0.087	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.126	
Sample Matrix Spike Result:	15.273	
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	1.022	
Sample Matrix Spike Duplicate Result:	18.292	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.183	
MS Numerical Performance Indicator:	-0.721	
MSD Numerical Performance Indicator:	1.203	
MS Percent Recovery:	97.53%	
MSD Percent Recovery:	104.24%	
MS Status vs Numerical Indicator:	N/A	
MSD Status vs Numerical Indicator:	N/A	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	125%	
MS/MSD Lower % Recovery Limits:	75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30566801006
Sample MS I.D.:	30566801007
Sample MSD I.D.:	30566801008
Sample Matrix Spike Result:	15.273
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.022
Sample Matrix Spike Duplicate Result:	18.292
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.183
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	-3.785
Duplicate Numerical Performance Indicator:	6.66%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	N/A
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JJS1
Date: 3/8/2023
Worklist: 71853
Matrix: WT

Method Blank Assessment	
MB Sample ID	2775784
MB concentration:	0.369
MB 2 Sigma CSU:	0.302
MB MDC:	0.596
MB Numerical Performance Indicator:	2.40
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?		N
	LCS71853	LCS71853	
Count Date:	3/10/2023		LCS71853
Spike I.D.:	22-040		
Decay Corrected Spike Concentration (pCi/mL):	33.289		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.803		
Target Conc. (pCi/L, g, F):	4.147		
Uncertainty (Calculated):	0.203		
Result (pCi/L, g, F):	4.599		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.066		
Numerical Performance Indicator:	0.82		
Percent Recovery:	110.89%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

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

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

Comments:

VAL
3/13/23

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/22/2023	
Sample I.D.:	30566801006	
Sample MS I.D.:	30566801007	
Sample MSD I.D.:	30566801008	
Spike I.D.:	22-040	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	33.466	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.802	
MS Target Conc. (pCi/L, g, F):	8.348	
MSD Aliquot (L, g, F):	0.801	
MSD Target Conc. (pCi/L, g, F):	8.359	
MS Spike Uncertainty (calculated):	0.409	
MSD Spike Uncertainty (calculated):	0.410	
Sample Result:	0.717	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.378	
Sample Matrix Spike Result:	7.149	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.505	
Sample Matrix Spike Duplicate Result:	7.908	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.594	
MS Numerical Performance Indicator:	-2.341	
MSD Numerical Performance Indicator:	-1.355	
MS Percent Recovery:	77.04%	
MSD Percent Recovery:	86.03%	
MS Status vs Numerical Indicator:	Warning	
MSD Status vs Numerical Indicator:	Pass	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135%	
MS/MSD Lower % Recovery Limits:	60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30566801006
Sample MS I.D.:	30566801007
Sample MSD I.D.:	30566801008
Spike I.D.:	7.149
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.505
Sample Matrix Spike Duplicate Result:	7.908
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.594
Duplicate Numerical Performance Indicator:	-0.679
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	11.02%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 3/6/2023
Worklist: 71854
Matrix: DW

Method Blank Assessment	
MB Sample ID	2775793
MB Concentration:	0.031
MB Counting Uncertainty:	0.080
MB MDC:	0.192
MB Numerical Performance Indicator:	0.76
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or NJ)?	N
LCSD71854	LCSD71854
Count Date:	3/30/2023
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.018
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.500
Target Conc. (pCi/L, g, F):	4.799
Uncertainty (Calculated):	0.058
Result (pCi/L, g, F):	4.775
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.460
Numerical Performance Indicator:	-0.10
Percent Recovery:	99.50%
Status vs Numerical Indicator:	N/A
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 2/20/2023
Sample I.D.:	30566801010
Sample MS I.D.:	30566801011
Sample MSD I.D.:	30566801012
Spike I.D.:	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.019
Spike Volume Used in MS (mL):	0.20
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.301
MS Target Conc. (pCi/L, g, F):	15.943
MSD Aliquot (L, g, F):	0.271
MSD Target Conc. (pCi/L, g, F):	17.740
MSD Spike Uncertainty (calculated):	0.191
MSD Spike Uncertainty (calculated):	0.213
Sample Result:	0.028
Sample Matrix Spike Result:	0.061
Sample Matrix Spike Result:	13.990
Sample Matrix Spike Duplicate Result:	1.010
Sample Matrix Spike Duplicate Result:	18.258
Sample Matrix Spike Duplicate Result:	1.204
MS Numerical Performance Indicator:	-3.546
MSD Numerical Performance Indicator:	0.972
MS Percent Recovery:	88.31%
MSD Percent Recovery:	103.42%
MS Status vs Numerical Indicator:	N/A
MSD Status vs Numerical Indicator:	N/A
MS Status vs Recovery:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	125%
MS/MSD Lower % Recovery Limits:	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30566801010
Sample MS I.D.:	30566801011
Sample MSD I.D.:	30566801012
Spike I.D.:	19-033
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	13.990
Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.010
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	18.258
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.204
Duplicate Numerical Performance Indicator:	-5.322
Duplicate Numerical Performance Indicator:	15.76%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	N/A
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	25%
% RPD Limit:	25%

Duplicate Sample Assessment	
Sample I.D.:	See Below ##
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

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

Comments:

JH-3003
SLC 3/30/23

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 Pooled Upgradient Wells

2023 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).

MW-4 was inadvertently sampled before the DO stabilization criteria was met. This was discovered during the peer review process and was communicated to the appropriate parties. It was decided by SCS Earth Sciences personnel to keep the field and analytical data and include a summary in this field narrative. All other indicator parameter stabilization criteria were met prior to sampling. An "F" qualifier was used next to the last 3 DO field readings to denote this occurrence.

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) 664-6032 or 6171
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Field Case Narrative



Plant Gorgas Landfill

2023 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 was present during initial pumping of well MW-12.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
 - Equipment Blank 1 (EB-1) had results greater than the RL for Manganese and Sulfate.
- Calibration verifications for all required field parameters were performed daily, before and after sample collection.

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-1	COND	Conductivity	8/22/2023 12:38	2196.92	uS/cm
APCO-GS-CCB- MW-1	DO	DO	8/22/2023 12:38	0.52	mg/L
APCO-GS-CCB- MW-1	DTW	Depth to Water Detail	8/22/2023 12:38	92.8	ft
APCO-GS-CCB- MW-1	ORP	Oxidation Reduction Potential	8/22/2023 12:38	297.82	mv
APCO-GS-CCB- MW-1	PH	pH	8/22/2023 12:38	4.88	SU
APCO-GS-CCB- MW-1	TEMP	Temperature	8/22/2023 12:38	22.3	C
APCO-GS-CCB- MW-1	TURB	Turbidity	8/22/2023 12:38	2.74	NTU
APCO-GS-CCB- MW-1	COND	Conductivity	8/22/2023 12:43	2180.39	uS/cm
APCO-GS-CCB- MW-1	DO	DO	8/22/2023 12:43	0.77	mg/L
APCO-GS-CCB- MW-1	DTW	Depth to Water Detail	8/22/2023 12:43	92.8	ft
APCO-GS-CCB- MW-1	ORP	Oxidation Reduction Potential	8/22/2023 12:43	321.71	mv
APCO-GS-CCB- MW-1	PH	pH	8/22/2023 12:43	4.85	SU
APCO-GS-CCB- MW-1	TEMP	Temperature	8/22/2023 12:43	22.07	C
APCO-GS-CCB- MW-1	TURB	Turbidity	8/22/2023 12:43	1.4	NTU
APCO-GS-CCB- MW-1	COND	Conductivity	8/22/2023 12:48	2204.07	uS/cm
APCO-GS-CCB- MW-1	DO	DO	8/22/2023 12:48	0.5	mg/L
APCO-GS-CCB- MW-1	DTW	Depth to Water Detail	8/22/2023 12:48	92.8	ft
APCO-GS-CCB- MW-1	ORP	Oxidation Reduction Potential	8/22/2023 12:48	333.02	mv
APCO-GS-CCB- MW-1	PH	pH	8/22/2023 12:48	4.88	SU
APCO-GS-CCB- MW-1	TEMP	Temperature	8/22/2023 12:48	22.19	C
APCO-GS-CCB- MW-1	TURB	Turbidity	8/22/2023 12:48	1.58	NTU
APCO-GS-CCB- MW-1	COND	Conductivity	8/22/2023 12:53	2206.04	uS/cm
APCO-GS-CCB- MW-1	DO	DO	8/22/2023 12:53	0.34	mg/L
APCO-GS-CCB- MW-1	DTW	Depth to Water Detail	8/22/2023 12:53	92.8	ft
APCO-GS-CCB- MW-1	ORP	Oxidation Reduction Potential	8/22/2023 12:53	338.64	mv
APCO-GS-CCB- MW-1	PH	pH	8/22/2023 12:53	4.92	SU
APCO-GS-CCB- MW-1	SULFIDE	Sulfide	8/22/2023 12:53	0	mg/L
APCO-GS-CCB- MW-1	TEMP	Temperature	8/22/2023 12:53	22.09	C
APCO-GS-CCB- MW-1	TURB	Turbidity	8/22/2023 12:53	1.06	NTU
APCO-GS-CCB- MW-2	COND	Conductivity	8/22/2023 13:33	1734.93	uS/cm
APCO-GS-CCB- MW-2	DO	DO	8/22/2023 13:33	0.18	mg/L
APCO-GS-CCB- MW-2	DTW	Depth to Water Detail	8/22/2023 13:33	84.6	ft
APCO-GS-CCB- MW-2	ORP	Oxidation Reduction Potential	8/22/2023 13:33	67.36	mv
APCO-GS-CCB- MW-2	PH	pH	8/22/2023 13:33	5.82	SU
APCO-GS-CCB- MW-2	TEMP	Temperature	8/22/2023 13:33	21.99	C
APCO-GS-CCB- MW-2	TURB	Turbidity	8/22/2023 13:33	21.9	NTU
APCO-GS-CCB- MW-2	COND	Conductivity	8/22/2023 13:38	1720.39	uS/cm
APCO-GS-CCB- MW-2	DO	DO	8/22/2023 13:38	0.12	mg/L
APCO-GS-CCB- MW-2	DTW	Depth to Water Detail	8/22/2023 13:38	84.6	ft
APCO-GS-CCB- MW-2	ORP	Oxidation Reduction Potential	8/22/2023 13:38	71.28	mv
APCO-GS-CCB- MW-2	PH	pH	8/22/2023 13:38	5.79	SU
APCO-GS-CCB- MW-2	TEMP	Temperature	8/22/2023 13:38	21.44	C
APCO-GS-CCB- MW-2	TURB	Turbidity	8/22/2023 13:38	9.91	NTU
APCO-GS-CCB- MW-2	COND	Conductivity	8/22/2023 13:43	1719.27	uS/cm
APCO-GS-CCB- MW-2	DO	DO	8/22/2023 13:43	0.1	mg/L
APCO-GS-CCB- MW-2	DTW	Depth to Water Detail	8/22/2023 13:43	84.6	ft
APCO-GS-CCB- MW-2	ORP	Oxidation Reduction Potential	8/22/2023 13:43	69.58	mv
APCO-GS-CCB- MW-2	PH	pH	8/22/2023 13:43	5.8	SU
APCO-GS-CCB- MW-2	TEMP	Temperature	8/22/2023 13:43	21.21	C
APCO-GS-CCB- MW-2	TURB	Turbidity	8/22/2023 13:43	6.95	NTU
APCO-GS-CCB- MW-2	COND	Conductivity	8/22/2023 13:48	1720.05	uS/cm
APCO-GS-CCB- MW-2	DO	DO	8/22/2023 13:48	0.09	mg/L
APCO-GS-CCB- MW-2	DTW	Depth to Water Detail	8/22/2023 13:48	84.6	ft
APCO-GS-CCB- MW-2	ORP	Oxidation Reduction Potential	8/22/2023 13:48	69.56	mv
APCO-GS-CCB- MW-2	PH	pH	8/22/2023 13:48	5.81	SU
APCO-GS-CCB- MW-2	SULFIDE	Sulfide	8/22/2023 13:48	0	mg/L
APCO-GS-CCB- MW-2	TEMP	Temperature	8/22/2023 13:48	21.04	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-2	TURB	Turbidity	8/22/2023 13:48	2.91	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 14:25	2710.92	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 14:25	7.93	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 14:25	110.6	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 14:25	107.59	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 14:25	6.77	SU
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 14:25	30.96	C
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 14:25	8.64	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 14:30	2927.96	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 14:30	6.45	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 14:30	110.7	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 14:30	106.33	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 14:30	5.74	SU
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 14:30	30.09	C
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 14:30	12.8	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 14:35	3186.4	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 14:35	2.32	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 14:35	110.82	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 14:35	149.98	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 14:35	5.3	SU
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 14:35	30.29	C
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 14:35	36	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 14:40	3737.45	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 14:40	1.59	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 14:40	110.92	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 14:40	173.45	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 14:40	5.18	SU
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 14:40	30.37	C
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 14:40	24	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 14:45	3703.94	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 14:45	1.31	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 14:45	111	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 14:45	195.14	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 14:45	5.13	SU
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 14:45	29.84	C
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 14:45	16.4	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 14:50	4111.39	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 14:50	1.3	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 14:50	111.1	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 14:50	210.96	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 14:50	5.09	SU
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 14:50	30.06	C
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 14:50	11	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 14:55	4098.69	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 14:55	1.42	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 14:55	111.15	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 14:55	217.32	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 14:55	5.06	SU
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 14:55	30.19	C
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 14:55	8.03	NTU
APCO-GS-CCB- MW-3	COND	Conductivity	8/22/2023 15:00	4080.83	uS/cm
APCO-GS-CCB- MW-3	DO	DO	8/22/2023 15:00	1.44	mg/L
APCO-GS-CCB- MW-3	DTW	Depth to Water Detail	8/22/2023 15:00	111.25	ft
APCO-GS-CCB- MW-3	ORP	Oxidation Reduction Potential	8/22/2023 15:00	216.99	mv
APCO-GS-CCB- MW-3	PH	pH	8/22/2023 15:00	5.04	SU
APCO-GS-CCB- MW-3	SULFIDE	Sulfide	8/22/2023 15:00	0	mg/L
APCO-GS-CCB- MW-3	TEMP	Temperature	8/22/2023 15:00	30.15	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-3	TURB	Turbidity	8/22/2023 15:00	5.66	NTU
APCO-GS-CCB- MW-4	COND	Conductivity	8/22/2023 16:10	3000.74	uS/cm
APCO-GS-CCB- MW-4	DO	DO	8/22/2023 16:10	1.59	mg/L
APCO-GS-CCB- MW-4	DTW	Depth to Water Detail	8/22/2023 16:10	117.38	ft
APCO-GS-CCB- MW-4	ORP	Oxidation Reduction Potential	8/22/2023 16:10	144.57	mv
APCO-GS-CCB- MW-4	PH	pH	8/22/2023 16:10	6.12	SU
APCO-GS-CCB- MW-4	TEMP	Temperature	8/22/2023 16:10	24.36	C
APCO-GS-CCB- MW-4	TURB	Turbidity	8/22/2023 16:10	40.6	NTU
APCO-GS-CCB- MW-4	COND	Conductivity	8/22/2023 16:15	3122.72	uS/cm
APCO-GS-CCB- MW-4	DO	DO	8/22/2023 16:15	1.21	mg/L
APCO-GS-CCB- MW-4	DTW	Depth to Water Detail	8/22/2023 16:15	117.38	ft
APCO-GS-CCB- MW-4	ORP	Oxidation Reduction Potential	8/22/2023 16:15	154.59	mv
APCO-GS-CCB- MW-4	PH	pH	8/22/2023 16:15	6.16	SU
APCO-GS-CCB- MW-4	TEMP	Temperature	8/22/2023 16:15	23.63	C
APCO-GS-CCB- MW-4	TURB	Turbidity	8/22/2023 16:15	18.6	NTU
APCO-GS-CCB- MW-4	COND	Conductivity	8/22/2023 16:20	2957.37	uS/cm
APCO-GS-CCB- MW-4	DO	DO	8/22/2023 16:20	1.55	mg/L
APCO-GS-CCB- MW-4	DTW	Depth to Water Detail	8/22/2023 16:20	117.38	ft
APCO-GS-CCB- MW-4	ORP	Oxidation Reduction Potential	8/22/2023 16:20	158.62	mv
APCO-GS-CCB- MW-4	PH	pH	8/22/2023 16:20	6.24	SU
APCO-GS-CCB- MW-4	TEMP	Temperature	8/22/2023 16:20	23.22	C
APCO-GS-CCB- MW-4	TURB	Turbidity	8/22/2023 16:20	12.1	NTU
APCO-GS-CCB- MW-4	COND	Conductivity	8/22/2023 16:25	2923.19	uS/cm
APCO-GS-CCB- MW-4	DO	DO	8/22/2023 16:25	1.84	mg/L
APCO-GS-CCB- MW-4	DTW	Depth to Water Detail	8/22/2023 16:25	117.38	ft
APCO-GS-CCB- MW-4	ORP	Oxidation Reduction Potential	8/22/2023 16:25	163.28	mv
APCO-GS-CCB- MW-4	PH	pH	8/22/2023 16:25	6.27	SU
APCO-GS-CCB- MW-4	TEMP	Temperature	8/22/2023 16:25	23.14	C
APCO-GS-CCB- MW-4	TURB	Turbidity	8/22/2023 16:25	8.66	NTU
APCO-GS-CCB- MW-4	COND	Conductivity	8/22/2023 16:30	2962.35	uS/cm
APCO-GS-CCB- MW-4	DO	DO	8/22/2023 16:30	1.95	mg/L
APCO-GS-CCB- MW-4	DTW	Depth to Water Detail	8/22/2023 16:30	117.38	ft
APCO-GS-CCB- MW-4	ORP	Oxidation Reduction Potential	8/22/2023 16:30	168.43	mv
APCO-GS-CCB- MW-4	PH	pH	8/22/2023 16:30	6.28	SU
APCO-GS-CCB- MW-4	SULFIDE	Sulfide	8/22/2023 16:30	0	mg/L
APCO-GS-CCB- MW-4	TEMP	Temperature	8/22/2023 16:30	23.06	C
APCO-GS-CCB- MW-4	TURB	Turbidity	8/22/2023 16:30	7.22	NTU
APCO-GS-CCB- MW-5	COND	Conductivity	8/16/2023 10:12	3499.86	uS/cm
APCO-GS-CCB- MW-5	DO	DO	8/16/2023 10:12	0.85	mg/L
APCO-GS-CCB- MW-5	DTW	Depth to Water Detail	8/16/2023 10:12	126.05	ft
APCO-GS-CCB- MW-5	ORP	Oxidation Reduction Potential	8/16/2023 10:12	-4.72	mv
APCO-GS-CCB- MW-5	PH	pH	8/16/2023 10:12	6.5	SU
APCO-GS-CCB- MW-5	TEMP	Temperature	8/16/2023 10:12	23.35	C
APCO-GS-CCB- MW-5	TURB	Turbidity	8/16/2023 10:12	44.4	NTU
APCO-GS-CCB- MW-5	COND	Conductivity	8/16/2023 10:17	3498.61	uS/cm
APCO-GS-CCB- MW-5	DO	DO	8/16/2023 10:17	0.63	mg/L
APCO-GS-CCB- MW-5	DTW	Depth to Water Detail	8/16/2023 10:17	126.08	ft
APCO-GS-CCB- MW-5	ORP	Oxidation Reduction Potential	8/16/2023 10:17	-8.41	mv
APCO-GS-CCB- MW-5	PH	pH	8/16/2023 10:17	6.5	SU
APCO-GS-CCB- MW-5	TEMP	Temperature	8/16/2023 10:17	23.52	C
APCO-GS-CCB- MW-5	TURB	Turbidity	8/16/2023 10:17	21.8	NTU
APCO-GS-CCB- MW-5	COND	Conductivity	8/16/2023 10:22	3515.28	uS/cm
APCO-GS-CCB- MW-5	DO	DO	8/16/2023 10:22	0.56	mg/L
APCO-GS-CCB- MW-5	DTW	Depth to Water Detail	8/16/2023 10:22	126.16	ft
APCO-GS-CCB- MW-5	ORP	Oxidation Reduction Potential	8/16/2023 10:22	-9.18	mv
APCO-GS-CCB- MW-5	PH	pH	8/16/2023 10:22	6.5	SU
APCO-GS-CCB- MW-5	TEMP	Temperature	8/16/2023 10:22	23.41	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-5	TURB	Turbidity	8/16/2023 10:22	13.6	NTU
APCO-GS-CCB- MW-5	COND	Conductivity	8/16/2023 10:27	3522.35	uS/cm
APCO-GS-CCB- MW-5	DO	DO	8/16/2023 10:27	0.51	mg/L
APCO-GS-CCB- MW-5	DTW	Depth to Water Detail	8/16/2023 10:27	126.16	ft
APCO-GS-CCB- MW-5	ORP	Oxidation Reduction Potential	8/16/2023 10:27	-14.89	mv
APCO-GS-CCB- MW-5	PH	pH	8/16/2023 10:27	6.5	SU
APCO-GS-CCB- MW-5	TEMP	Temperature	8/16/2023 10:27	23.76	C
APCO-GS-CCB- MW-5	TURB	Turbidity	8/16/2023 10:27	12.18	NTU
APCO-GS-CCB- MW-5	COND	Conductivity	8/16/2023 10:32	3517.4	uS/cm
APCO-GS-CCB- MW-5	DO	DO	8/16/2023 10:32	0.47	mg/L
APCO-GS-CCB- MW-5	DTW	Depth to Water Detail	8/16/2023 10:32	126.2	ft
APCO-GS-CCB- MW-5	ORP	Oxidation Reduction Potential	8/16/2023 10:32	-12.24	mv
APCO-GS-CCB- MW-5	PH	pH	8/16/2023 10:32	6.5	SU
APCO-GS-CCB- MW-5	TEMP	Temperature	8/16/2023 10:32	23.72	C
APCO-GS-CCB- MW-5	TURB	Turbidity	8/16/2023 10:32	7.81	NTU
APCO-GS-CCB- MW-5	COND	Conductivity	8/16/2023 10:37	3518.09	uS/cm
APCO-GS-CCB- MW-5	DO	DO	8/16/2023 10:37	0.46	mg/L
APCO-GS-CCB- MW-5	DTW	Depth to Water Detail	8/16/2023 10:37	126.2	ft
APCO-GS-CCB- MW-5	ORP	Oxidation Reduction Potential	8/16/2023 10:37	-10.03	mv
APCO-GS-CCB- MW-5	PH	pH	8/16/2023 10:37	6.5	SU
APCO-GS-CCB- MW-5	SULFIDE	Sulfide	8/16/2023 10:37	0	mg/L
APCO-GS-CCB- MW-5	TEMP	Temperature	8/16/2023 10:37	24.07	C
APCO-GS-CCB- MW-5	TURB	Turbidity	8/16/2023 10:37	6.87	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 11:40	2746.25	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 11:40	7.36	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 11:40	105.82	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 11:40	169.66	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 11:40	4.31	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 11:40	23.59	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 11:40		NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 11:45	3055.9	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 11:45	0.29	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 11:45	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 11:45	-10.02	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 11:45	5.83	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 11:45	22.26	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 11:45	27.4	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 11:46	3061.64	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 11:46	0.25	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 11:46	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 11:46	-18.12	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 11:46	5.85	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 11:46	21.97	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 11:46	27.4	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 11:51	3047.32	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 11:51	0.18	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 11:51	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 11:51	-33.26	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 11:51	5.89	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 11:51	21.8	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 11:51	15.4	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 11:56	3046.79	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 11:56	0.15	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 11:56	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 11:56	-36.36	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 11:56	5.91	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 11:56	22.33	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 11:56	16.3	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 12:01	3044.83	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 12:01	0.14	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 12:01	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 12:01	-40.53	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 12:01	5.93	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 12:01	22.07	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 12:01	13.6	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 12:06	3038	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 12:06	0.12	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 12:06	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 12:06	-43.23	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 12:06	5.94	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 12:06	22.2	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 12:06	10.75	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 12:11	3033.3	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 12:11	0.11	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 12:11	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 12:11	-47.56	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 12:11	5.97	SU
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 12:11	22.11	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 12:11	7.24	NTU
APCO-GS-CCB- MW-6	COND	Conductivity	8/16/2023 12:16	3036.34	uS/cm
APCO-GS-CCB- MW-6	DO	DO	8/16/2023 12:16	0.1	mg/L
APCO-GS-CCB- MW-6	DTW	Depth to Water Detail	8/16/2023 12:16	106.1	ft
APCO-GS-CCB- MW-6	ORP	Oxidation Reduction Potential	8/16/2023 12:16	-49.81	mv
APCO-GS-CCB- MW-6	PH	pH	8/16/2023 12:16	6.01	SU
APCO-GS-CCB- MW-6	SULFIDE	Sulfide	8/16/2023 12:16	0	mg/L
APCO-GS-CCB- MW-6	TEMP	Temperature	8/16/2023 12:16	22.19	C
APCO-GS-CCB- MW-6	TURB	Turbidity	8/16/2023 12:16	5.76	NTU
APCO-GS-CCB- MW-7	COND	Conductivity	8/15/2023 15:48	1656.72	uS/cm
APCO-GS-CCB- MW-7	DO	DO	8/15/2023 15:48	0.42	mg/L
APCO-GS-CCB- MW-7	DTW	Depth to Water Detail	8/15/2023 15:48	59.05	ft
APCO-GS-CCB- MW-7	ORP	Oxidation Reduction Potential	8/15/2023 15:48	6.94	mv
APCO-GS-CCB- MW-7	PH	pH	8/15/2023 15:48	7.44	SU
APCO-GS-CCB- MW-7	TEMP	Temperature	8/15/2023 15:48	20.74	C
APCO-GS-CCB- MW-7	TURB	Turbidity	8/15/2023 15:48	20.7	NTU
APCO-GS-CCB- MW-7	COND	Conductivity	8/15/2023 15:53	1634.5	uS/cm
APCO-GS-CCB- MW-7	DO	DO	8/15/2023 15:53	0.2	mg/L
APCO-GS-CCB- MW-7	DTW	Depth to Water Detail	8/15/2023 15:53	59.05	ft
APCO-GS-CCB- MW-7	ORP	Oxidation Reduction Potential	8/15/2023 15:53	6.22	mv
APCO-GS-CCB- MW-7	PH	pH	8/15/2023 15:53	7.45	SU
APCO-GS-CCB- MW-7	TEMP	Temperature	8/15/2023 15:53	20.53	C
APCO-GS-CCB- MW-7	TURB	Turbidity	8/15/2023 15:53	12.9	NTU
APCO-GS-CCB- MW-7	COND	Conductivity	8/15/2023 15:58	1611.32	uS/cm
APCO-GS-CCB- MW-7	DO	DO	8/15/2023 15:58	0.16	mg/L
APCO-GS-CCB- MW-7	DTW	Depth to Water Detail	8/15/2023 15:58	59.05	ft
APCO-GS-CCB- MW-7	ORP	Oxidation Reduction Potential	8/15/2023 15:58	4.84	mv
APCO-GS-CCB- MW-7	PH	pH	8/15/2023 15:58	7.46	SU
APCO-GS-CCB- MW-7	TEMP	Temperature	8/15/2023 15:58	20.58	C
APCO-GS-CCB- MW-7	TURB	Turbidity	8/15/2023 15:58	8.79	NTU
APCO-GS-CCB- MW-7	COND	Conductivity	8/15/2023 16:03	1591.01	uS/cm
APCO-GS-CCB- MW-7	DO	DO	8/15/2023 16:03	0.14	mg/L
APCO-GS-CCB- MW-7	DTW	Depth to Water Detail	8/15/2023 16:03	59.05	ft
APCO-GS-CCB- MW-7	ORP	Oxidation Reduction Potential	8/15/2023 16:03	3.69	mv
APCO-GS-CCB- MW-7	PH	pH	8/15/2023 16:03	7.47	SU
APCO-GS-CCB- MW-7	SULFIDE	Sulfide	8/15/2023 16:03	0	mg/L

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-7	TEMP	Temperature	8/15/2023 16:03	20.57	C
APCO-GS-CCB- MW-7	TURB	Turbidity	8/15/2023 16:03	7.68	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:19	1862.46	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:19	1.5	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:19	65.98	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:19	-12.01	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:19	7.6	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:19	26.72	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:19	73.4	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:24	1848.7	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:24	0.97	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:24	66.12	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:24	-8.52	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:24	7.6	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:24	26.6	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:24	56	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:29	1836.65	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:29	0.8	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:29	66.18	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:29	-6.22	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:29	7.6	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:29	26.57	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:29	36.1	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:34	1812.9	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:34	0.72	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:34	66.22	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:34	-4.36	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:34	7.6	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:34	25.93	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:34	24.3	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:39	1774.51	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:39	0.67	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:39	66.22	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:39	-2.52	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:39	7.6	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:39	24.99	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:39	17.6	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:44	1800.77	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:44	0.63	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:44	66.22	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:44	-2.08	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:44	7.59	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:44	25.95	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:44	12.6	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:49	1804.9	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:49	0.6	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:49	66.22	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:49	-1.78	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:49	7.58	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:49	26.27	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:49	11.7	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:54	1795.35	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:54	0.56	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:54	66.22	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:54	-1.01	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:54	7.58	SU
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:54	25.89	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:54	10.47	NTU
APCO-GS-CCB- MW-8	COND	Conductivity	8/15/2023 14:59	1793.82	uS/cm
APCO-GS-CCB- MW-8	DO	DO	8/15/2023 14:59	0.56	mg/L
APCO-GS-CCB- MW-8	DTW	Depth to Water Detail	8/15/2023 14:59	66.22	ft
APCO-GS-CCB- MW-8	ORP	Oxidation Reduction Potential	8/15/2023 14:59	-0.67	mv
APCO-GS-CCB- MW-8	PH	pH	8/15/2023 14:59	7.58	SU
APCO-GS-CCB- MW-8	SULFIDE	Sulfide	8/15/2023 14:59	0	mg/L
APCO-GS-CCB- MW-8	TEMP	Temperature	8/15/2023 14:59	26.03	C
APCO-GS-CCB- MW-8	TURB	Turbidity	8/15/2023 14:59	9.69	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:14	1201.6	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:14	5.82	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:14	88.36	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:14	-7.46	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:14	7.75	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:14	24.93	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:14	88.7	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:19	1139.48	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:19	2.63	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:19	88.52	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:19	-1.02	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:19	7.62	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:19	25.09	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:19	96.1	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:24	1128.4	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:24	1.49	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:24	88.61	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:24	-0.43	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:24	7.59	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:24	25.01	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:24	67.4	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:29	1127.59	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:29	1.17	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:29	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:29	-0.42	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:29	7.58	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:29	25.33	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:29	47	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:34	1134.51	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:34	1.08	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:34	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:34	-0.78	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:34	7.57	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:34	26.12	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:34	39.3	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:39	1134.2	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:39	1.04	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:39	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:39	-1.22	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:39	7.57	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:39	26.6	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:39	29.6	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:44	1142.93	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:44	1.07	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:44	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:44	-1.63	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:44	7.56	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:44	27.12	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:44	25.4	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:49	1152.33	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:49	1.17	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:49	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:49	-2.58	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:49	7.56	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:49	27.93	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:49	32.2	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:54	1148.12	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:54	1.21	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:54	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:54	-2.8	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:54	7.56	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:54	28.13	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:54	20.4	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 12:59	1138.85	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 12:59	1.1	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 12:59	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 12:59	-1.91	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 12:59	7.56	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 12:59	27.42	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 12:59	20.1	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 13:04	1143.3	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 13:04	1.1	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 13:04	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 13:04	-2.07	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 13:04	7.55	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 13:04	27.58	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 13:04	14.9	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 13:09	1133.79	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 13:09	0.97	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 13:09	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 13:09	-1.09	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 13:09	7.54	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 13:09	26.14	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 13:09	12.7	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 13:14	1127.99	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 13:14	0.94	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 13:14	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 13:14	-1.84	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 13:14	7.54	SU
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 13:14	25.42	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 13:14	10.1	NTU
APCO-GS-CCB- MW-10	COND	Conductivity	8/15/2023 13:19	1123.05	uS/cm
APCO-GS-CCB- MW-10	DO	DO	8/15/2023 13:19	0.91	mg/L
APCO-GS-CCB- MW-10	DTW	Depth to Water Detail	8/15/2023 13:19	88.67	ft
APCO-GS-CCB- MW-10	ORP	Oxidation Reduction Potential	8/15/2023 13:19	-3.4	mv
APCO-GS-CCB- MW-10	PH	pH	8/15/2023 13:19	7.53	SU
APCO-GS-CCB- MW-10	SULFIDE	Sulfide	8/15/2023 13:19	0	mg/L
APCO-GS-CCB- MW-10	TEMP	Temperature	8/15/2023 13:19	24.75	C
APCO-GS-CCB- MW-10	TURB	Turbidity	8/15/2023 13:19	9.72	NTU
APCO-GS-CCB- MW-11	COND	Conductivity	8/15/2023 10:46	2227.4	uS/cm
APCO-GS-CCB- MW-11	DO	DO	8/15/2023 10:46	1.28	mg/L
APCO-GS-CCB- MW-11	DTW	Depth to Water Detail	8/15/2023 10:46	109.9	ft
APCO-GS-CCB- MW-11	ORP	Oxidation Reduction Potential	8/15/2023 10:46	10.78	mv
APCO-GS-CCB- MW-11	PH	pH	8/15/2023 10:46	7.59	SU
APCO-GS-CCB- MW-11	TEMP	Temperature	8/15/2023 10:46	21.31	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-11	TURB	Turbidity	8/15/2023 10:46	4.14	NTU
APCO-GS-CCB- MW-11	COND	Conductivity	8/15/2023 10:51	2203.18	uS/cm
APCO-GS-CCB- MW-11	DO	DO	8/15/2023 10:51	0.93	mg/L
APCO-GS-CCB- MW-11	DTW	Depth to Water Detail	8/15/2023 10:51	110.71	ft
APCO-GS-CCB- MW-11	ORP	Oxidation Reduction Potential	8/15/2023 10:51	-4.73	mv
APCO-GS-CCB- MW-11	PH	pH	8/15/2023 10:51	7.62	SU
APCO-GS-CCB- MW-11	TEMP	Temperature	8/15/2023 10:51	22.61	C
APCO-GS-CCB- MW-11	TURB	Turbidity	8/15/2023 10:51	3.82	NTU
APCO-GS-CCB- MW-11	COND	Conductivity	8/15/2023 10:56	2170.2	uS/cm
APCO-GS-CCB- MW-11	DO	DO	8/15/2023 10:56	0.95	mg/L
APCO-GS-CCB- MW-11	DTW	Depth to Water Detail	8/15/2023 10:56	110.88	ft
APCO-GS-CCB- MW-11	ORP	Oxidation Reduction Potential	8/15/2023 10:56	-13.77	mv
APCO-GS-CCB- MW-11	PH	pH	8/15/2023 10:56	7.63	SU
APCO-GS-CCB- MW-11	TEMP	Temperature	8/15/2023 10:56	22.78	C
APCO-GS-CCB- MW-11	TURB	Turbidity	8/15/2023 10:56	3.11	NTU
APCO-GS-CCB- MW-11	COND	Conductivity	8/15/2023 11:01	2136.13	uS/cm
APCO-GS-CCB- MW-11	DO	DO	8/15/2023 11:01	0.9	mg/L
APCO-GS-CCB- MW-11	DTW	Depth to Water Detail	8/15/2023 11:01	111.2	ft
APCO-GS-CCB- MW-11	ORP	Oxidation Reduction Potential	8/15/2023 11:01	-18.69	mv
APCO-GS-CCB- MW-11	PH	pH	8/15/2023 11:01	7.62	SU
APCO-GS-CCB- MW-11	TEMP	Temperature	8/15/2023 11:01	22.55	C
APCO-GS-CCB- MW-11	TURB	Turbidity	8/15/2023 11:01	3.08	NTU
APCO-GS-CCB- MW-11	COND	Conductivity	8/15/2023 11:06	2120.78	uS/cm
APCO-GS-CCB- MW-11	DO	DO	8/15/2023 11:06	0.88	mg/L
APCO-GS-CCB- MW-11	DTW	Depth to Water Detail	8/15/2023 11:06	111.43	ft
APCO-GS-CCB- MW-11	ORP	Oxidation Reduction Potential	8/15/2023 11:06	-22.05	mv
APCO-GS-CCB- MW-11	PH	pH	8/15/2023 11:06	7.62	SU
APCO-GS-CCB- MW-11	TEMP	Temperature	8/15/2023 11:06	22.56	C
APCO-GS-CCB- MW-11	TURB	Turbidity	8/15/2023 11:06	2.89	NTU
APCO-GS-CCB- MW-11	COND	Conductivity	8/15/2023 11:11	2115.88	uS/cm
APCO-GS-CCB- MW-11	DO	DO	8/15/2023 11:11	0.92	mg/L
APCO-GS-CCB- MW-11	DTW	Depth to Water Detail	8/15/2023 11:11	111.46	ft
APCO-GS-CCB- MW-11	ORP	Oxidation Reduction Potential	8/15/2023 11:11	-25.2	mv
APCO-GS-CCB- MW-11	PH	pH	8/15/2023 11:11	7.62	SU
APCO-GS-CCB- MW-11	SULFIDE	Sulfide	8/15/2023 11:11	0	mg/L
APCO-GS-CCB- MW-11	TEMP	Temperature	8/15/2023 11:11	23.14	C
APCO-GS-CCB- MW-11	TURB	Turbidity	8/15/2023 11:11	2.6	NTU
APCO-GS-CCB- MW-12	COND	Conductivity	8/16/2023 8:45	2536.84	uS/cm
APCO-GS-CCB- MW-12	DO	DO	8/16/2023 8:45	1.77	mg/L
APCO-GS-CCB- MW-12	DTW	Depth to Water Detail	8/16/2023 8:45	155.82	ft
APCO-GS-CCB- MW-12	ORP	Oxidation Reduction Potential	8/16/2023 8:45	31.9	mv
APCO-GS-CCB- MW-12	PH	pH	8/16/2023 8:45	5.74	SU
APCO-GS-CCB- MW-12	TEMP	Temperature	8/16/2023 8:45	22.12	C
APCO-GS-CCB- MW-12	TURB	Turbidity	8/16/2023 8:45	12.2	NTU
APCO-GS-CCB- MW-12	COND	Conductivity	8/16/2023 8:50	2533.72	uS/cm
APCO-GS-CCB- MW-12	DO	DO	8/16/2023 8:50	0.85	mg/L
APCO-GS-CCB- MW-12	DTW	Depth to Water Detail	8/16/2023 8:50	155.82	ft
APCO-GS-CCB- MW-12	ORP	Oxidation Reduction Potential	8/16/2023 8:50	29.56	mv
APCO-GS-CCB- MW-12	PH	pH	8/16/2023 8:50	5.8	SU
APCO-GS-CCB- MW-12	TEMP	Temperature	8/16/2023 8:50	22.41	C
APCO-GS-CCB- MW-12	TURB	Turbidity	8/16/2023 8:50	10.2	NTU
APCO-GS-CCB- MW-12	COND	Conductivity	8/16/2023 8:55	2518.9	uS/cm
APCO-GS-CCB- MW-12	DO	DO	8/16/2023 8:55	1.05	mg/L
APCO-GS-CCB- MW-12	DTW	Depth to Water Detail	8/16/2023 8:55	155.82	ft
APCO-GS-CCB- MW-12	ORP	Oxidation Reduction Potential	8/16/2023 8:55	28.58	mv
APCO-GS-CCB- MW-12	PH	pH	8/16/2023 8:55	5.8	SU
APCO-GS-CCB- MW-12	TEMP	Temperature	8/16/2023 8:55	22.21	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-12	TURB	Turbidity	8/16/2023 8:55	7.78	NTU
APCO-GS-CCB- MW-12	COND	Conductivity	8/16/2023 9:00	2513.81	uS/cm
APCO-GS-CCB- MW-12	DO	DO	8/16/2023 9:00	0.21	mg/L
APCO-GS-CCB- MW-12	DTW	Depth to Water Detail	8/16/2023 9:00	155.82	ft
APCO-GS-CCB- MW-12	ORP	Oxidation Reduction Potential	8/16/2023 9:00	27.75	mv
APCO-GS-CCB- MW-12	PH	pH	8/16/2023 9:00	5.81	SU
APCO-GS-CCB- MW-12	SULFIDE	Sulfide	8/16/2023 9:00	0	mg/L
APCO-GS-CCB- MW-12	TEMP	Temperature	8/16/2023 9:00	22.33	C
APCO-GS-CCB- MW-12	TURB	Turbidity	8/16/2023 9:00	6.87	NTU
APCO-GS-CCB- MW-12V	COND	Conductivity	8/16/2023 7:34	2566.97	uS/cm
APCO-GS-CCB- MW-12V	DO	DO	8/16/2023 7:34	2.82	mg/L
APCO-GS-CCB- MW-12V	DTW	Depth to Water Detail	8/16/2023 7:34	158.85	ft
APCO-GS-CCB- MW-12V	ORP	Oxidation Reduction Potential	8/16/2023 7:34	15.82	mv
APCO-GS-CCB- MW-12V	PH	pH	8/16/2023 7:34	6.9	SU
APCO-GS-CCB- MW-12V	TEMP	Temperature	8/16/2023 7:34	21.74	C
APCO-GS-CCB- MW-12V	TURB	Turbidity	8/16/2023 7:34	10.58	NTU
APCO-GS-CCB- MW-12V	COND	Conductivity	8/16/2023 7:39	2585.1	uS/cm
APCO-GS-CCB- MW-12V	DO	DO	8/16/2023 7:39	1.39	mg/L
APCO-GS-CCB- MW-12V	DTW	Depth to Water Detail	8/16/2023 7:39	159.01	ft
APCO-GS-CCB- MW-12V	ORP	Oxidation Reduction Potential	8/16/2023 7:39	0.76	mv
APCO-GS-CCB- MW-12V	PH	pH	8/16/2023 7:39	6.9	SU
APCO-GS-CCB- MW-12V	TEMP	Temperature	8/16/2023 7:39	21.81	C
APCO-GS-CCB- MW-12V	TURB	Turbidity	8/16/2023 7:39	7.45	NTU
APCO-GS-CCB- MW-12V	COND	Conductivity	8/16/2023 7:44	2560.72	uS/cm
APCO-GS-CCB- MW-12V	DO	DO	8/16/2023 7:44	1	mg/L
APCO-GS-CCB- MW-12V	DTW	Depth to Water Detail	8/16/2023 7:44	159.16	ft
APCO-GS-CCB- MW-12V	ORP	Oxidation Reduction Potential	8/16/2023 7:44	-14.53	mv
APCO-GS-CCB- MW-12V	PH	pH	8/16/2023 7:44	6.9	SU
APCO-GS-CCB- MW-12V	TEMP	Temperature	8/16/2023 7:44	21.79	C
APCO-GS-CCB- MW-12V	TURB	Turbidity	8/16/2023 7:44	6.22	NTU
APCO-GS-CCB- MW-12V	COND	Conductivity	8/16/2023 7:49	2535.37	uS/cm
APCO-GS-CCB- MW-12V	DO	DO	8/16/2023 7:49	0.92	mg/L
APCO-GS-CCB- MW-12V	DTW	Depth to Water Detail	8/16/2023 7:49	159.28	ft
APCO-GS-CCB- MW-12V	ORP	Oxidation Reduction Potential	8/16/2023 7:49	-24.24	mv
APCO-GS-CCB- MW-12V	PH	pH	8/16/2023 7:49	6.9	SU
APCO-GS-CCB- MW-12V	TEMP	Temperature	8/16/2023 7:49	21.8	C
APCO-GS-CCB- MW-12V	TURB	Turbidity	8/16/2023 7:49	5.58	NTU
APCO-GS-CCB- MW-12V	COND	Conductivity	8/16/2023 7:54	2498.91	uS/cm
APCO-GS-CCB- MW-12V	DO	DO	8/16/2023 7:54	0.84	mg/L
APCO-GS-CCB- MW-12V	DTW	Depth to Water Detail	8/16/2023 7:54	159.42	ft
APCO-GS-CCB- MW-12V	ORP	Oxidation Reduction Potential	8/16/2023 7:54	-30.24	mv
APCO-GS-CCB- MW-12V	PH	pH	8/16/2023 7:54	6.91	SU
APCO-GS-CCB- MW-12V	SULFIDE	Sulfide	8/16/2023 7:54	0	mg/L
APCO-GS-CCB- MW-12V	TEMP	Temperature	8/16/2023 7:54	21.77	C
APCO-GS-CCB- MW-12V	TURB	Turbidity	8/16/2023 7:54	4.96	NTU
APCO-GS-CCB- MW-13	COND	Conductivity	8/16/2023 9:43	1922.4	uS/cm
APCO-GS-CCB- MW-13	DO	DO	8/16/2023 9:43	2.04	mg/L
APCO-GS-CCB- MW-13	DTW	Depth to Water Detail	8/16/2023 9:43	94.86	ft
APCO-GS-CCB- MW-13	ORP	Oxidation Reduction Potential	8/16/2023 9:43	-14.51	mv
APCO-GS-CCB- MW-13	PH	pH	8/16/2023 9:43	6.45	SU
APCO-GS-CCB- MW-13	TEMP	Temperature	8/16/2023 9:43	21.1	C
APCO-GS-CCB- MW-13	TURB	Turbidity	8/16/2023 9:43	10.3	NTU
APCO-GS-CCB- MW-13	COND	Conductivity	8/16/2023 9:54	2318.83	uS/cm
APCO-GS-CCB- MW-13	DO	DO	8/16/2023 9:54	4.34	mg/L
APCO-GS-CCB- MW-13	DTW	Depth to Water Detail	8/16/2023 9:54	94.89	ft
APCO-GS-CCB- MW-13	ORP	Oxidation Reduction Potential	8/16/2023 9:54	-27.69	mv
APCO-GS-CCB- MW-13	PH	pH	8/16/2023 9:54	6.62	SU

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-13	TEMP	Temperature	8/16/2023 9:54	24.44	C
APCO-GS-CCB- MW-13	TURB	Turbidity	8/16/2023 9:54	9.78	NTU
APCO-GS-CCB- MW-13	COND	Conductivity	8/16/2023 9:59	2065.65	uS/cm
APCO-GS-CCB- MW-13	DO	DO	8/16/2023 9:59	1.29	mg/L
APCO-GS-CCB- MW-13	DTW	Depth to Water Detail	8/16/2023 9:59	95.18	ft
APCO-GS-CCB- MW-13	ORP	Oxidation Reduction Potential	8/16/2023 9:59	-10.45	mv
APCO-GS-CCB- MW-13	PH	pH	8/16/2023 9:59	6.52	SU
APCO-GS-CCB- MW-13	TEMP	Temperature	8/16/2023 9:59	21.73	C
APCO-GS-CCB- MW-13	TURB	Turbidity	8/16/2023 9:59	6.98	NTU
APCO-GS-CCB- MW-13	COND	Conductivity	8/16/2023 10:04	1999.34	uS/cm
APCO-GS-CCB- MW-13	DO	DO	8/16/2023 10:04	0.61	mg/L
APCO-GS-CCB- MW-13	DTW	Depth to Water Detail	8/16/2023 10:04	95.31	ft
APCO-GS-CCB- MW-13	ORP	Oxidation Reduction Potential	8/16/2023 10:04	-3.7	mv
APCO-GS-CCB- MW-13	PH	pH	8/16/2023 10:04	6.51	SU
APCO-GS-CCB- MW-13	TEMP	Temperature	8/16/2023 10:04	21.37	C
APCO-GS-CCB- MW-13	TURB	Turbidity	8/16/2023 10:04	6.56	NTU
APCO-GS-CCB- MW-13	COND	Conductivity	8/16/2023 10:09	1960.19	uS/cm
APCO-GS-CCB- MW-13	DO	DO	8/16/2023 10:09	0.63	mg/L
APCO-GS-CCB- MW-13	DTW	Depth to Water Detail	8/16/2023 10:09	95.42	ft
APCO-GS-CCB- MW-13	ORP	Oxidation Reduction Potential	8/16/2023 10:09	1.11	mv
APCO-GS-CCB- MW-13	PH	pH	8/16/2023 10:09	6.51	SU
APCO-GS-CCB- MW-13	TEMP	Temperature	8/16/2023 10:09	21.22	C
APCO-GS-CCB- MW-13	TURB	Turbidity	8/16/2023 10:09	6.34	NTU
APCO-GS-CCB- MW-13	COND	Conductivity	8/16/2023 10:14	1958.78	uS/cm
APCO-GS-CCB- MW-13	DO	DO	8/16/2023 10:14	0.69	mg/L
APCO-GS-CCB- MW-13	DTW	Depth to Water Detail	8/16/2023 10:14	95.48	ft
APCO-GS-CCB- MW-13	ORP	Oxidation Reduction Potential	8/16/2023 10:14	4.33	mv
APCO-GS-CCB- MW-13	PH	pH	8/16/2023 10:14	6.5	SU
APCO-GS-CCB- MW-13	TEMP	Temperature	8/16/2023 10:14	22.26	C
APCO-GS-CCB- MW-13	TURB	Turbidity	8/16/2023 10:14	6.22	NTU
APCO-GS-CCB- MW-13	COND	Conductivity	8/16/2023 10:19	1922.86	uS/cm
APCO-GS-CCB- MW-13	DO	DO	8/16/2023 10:19	0.68	mg/L
APCO-GS-CCB- MW-13	DTW	Depth to Water Detail	8/16/2023 10:19	95.52	ft
APCO-GS-CCB- MW-13	ORP	Oxidation Reduction Potential	8/16/2023 10:19	8.27	mv
APCO-GS-CCB- MW-13	PH	pH	8/16/2023 10:19	6.51	SU
APCO-GS-CCB- MW-13	SULFIDE	Sulfide	8/16/2023 10:19	0	mg/L
APCO-GS-CCB- MW-13	TEMP	Temperature	8/16/2023 10:19	21.49	C
APCO-GS-CCB- MW-13	TURB	Turbidity	8/16/2023 10:19	6.3	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 10:54	1983.99	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 10:54	3.73	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 10:54	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 10:54	23.41	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 10:54	6.49	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 10:54	20.29	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 10:54	79.3	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 10:59	1967.84	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 10:59	5.01	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 10:59	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 10:59	22.84	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 10:59	6.53	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 10:59	20.21	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 10:59	101	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:04	1957.19	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:04	5.71	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:04	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:04	22.44	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:04	6.55	SU

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:04	20.2	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:04	101.5	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:09	1950.96	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:09	5.96	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:09	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:09	22.58	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:09	6.56	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:09	20.3	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:09	90.8	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:14	1941.72	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:14	6.21	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:14	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:14	22.64	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:14	6.58	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:14	20.27	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:14	73.6	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:19	1922.75	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:19	6.62	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:19	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:19	22.74	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:19	6.6	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:19	19.88	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:19	63.2	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:24	1911.39	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:24	6.76	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:24	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:24	23.34	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:24	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:24	19.82	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:24	43.4	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:29	1921.33	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:29	6.84	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:29	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:29	23.7	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:29	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:29	20.4	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:29	42.7	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:34	1918.21	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:34	6.83	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:34	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:34	24.81	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:34	6.6	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:34	20.44	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:34	35.2	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:39	1913.26	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:39	6.8	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:39	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:39	25.64	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:39	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:39	20.49	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:39	25.4	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:44	1924.8	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:44	6.83	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:44	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:44	26.21	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:44	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:44	20.57	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:44	21.7	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:49	1909.58	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:49	6.88	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:49	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:49	27.17	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:49	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:49	20.38	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:49	18.7	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:54	1908.76	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:54	6.88	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:54	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:54	28.12	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:54	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:54	20.46	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:54	13.7	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 11:59	1903.35	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 11:59	6.92	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 11:59	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 11:59	29.04	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 11:59	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 11:59	20.46	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 11:59	11.2	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 12:04	1901.08	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 12:04	6.93	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 12:04	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 12:04	29.81	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 12:04	6.61	SU
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 12:04	20.45	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 12:04	10.53	NTU
APCO-GS-CCB- MW-14	COND	Conductivity	8/16/2023 12:09	1892.39	uS/cm
APCO-GS-CCB- MW-14	DO	DO	8/16/2023 12:09	6.96	mg/L
APCO-GS-CCB- MW-14	DTW	Depth to Water Detail	8/16/2023 12:09	89.28	ft
APCO-GS-CCB- MW-14	ORP	Oxidation Reduction Potential	8/16/2023 12:09	30.73	mv
APCO-GS-CCB- MW-14	PH	pH	8/16/2023 12:09	6.62	SU
APCO-GS-CCB- MW-14	SULFIDE	Sulfide	8/16/2023 12:09	0	mg/L
APCO-GS-CCB- MW-14	TEMP	Temperature	8/16/2023 12:09	20.4	C
APCO-GS-CCB- MW-14	TURB	Turbidity	8/16/2023 12:09	9.16	NTU
APCO-GS-CCB- MW-15	COND	Conductivity	8/16/2023 12:40	1668.35	uS/cm
APCO-GS-CCB- MW-15	DO	DO	8/16/2023 12:40	1.06	mg/L
APCO-GS-CCB- MW-15	DTW	Depth to Water Detail	8/16/2023 12:40	67.94	ft
APCO-GS-CCB- MW-15	ORP	Oxidation Reduction Potential	8/16/2023 12:40	68.06	mv
APCO-GS-CCB- MW-15	PH	pH	8/16/2023 12:40	5.92	SU
APCO-GS-CCB- MW-15	TEMP	Temperature	8/16/2023 12:40	21.07	C
APCO-GS-CCB- MW-15	TURB	Turbidity	8/16/2023 12:40	17.9	NTU
APCO-GS-CCB- MW-15	COND	Conductivity	8/16/2023 12:45	1669.63	uS/cm
APCO-GS-CCB- MW-15	DO	DO	8/16/2023 12:45	0.96	mg/L
APCO-GS-CCB- MW-15	DTW	Depth to Water Detail	8/16/2023 12:45	67.94	ft
APCO-GS-CCB- MW-15	ORP	Oxidation Reduction Potential	8/16/2023 12:45	65.9	mv
APCO-GS-CCB- MW-15	PH	pH	8/16/2023 12:45	5.93	SU
APCO-GS-CCB- MW-15	TEMP	Temperature	8/16/2023 12:45	20.8	C
APCO-GS-CCB- MW-15	TURB	Turbidity	8/16/2023 12:45	11.8	NTU
APCO-GS-CCB- MW-15	COND	Conductivity	8/16/2023 12:50	1662.4	uS/cm
APCO-GS-CCB- MW-15	DO	DO	8/16/2023 12:50	0.65	mg/L
APCO-GS-CCB- MW-15	DTW	Depth to Water Detail	8/16/2023 12:50	67.94	ft
APCO-GS-CCB- MW-15	ORP	Oxidation Reduction Potential	8/16/2023 12:50	62.61	mv
APCO-GS-CCB- MW-15	PH	pH	8/16/2023 12:50	5.96	SU
APCO-GS-CCB- MW-15	TEMP	Temperature	8/16/2023 12:50	20.79	C

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-15	TURB	Turbidity	8/16/2023 12:50	9.18	NTU
APCO-GS-CCB- MW-15	COND	Conductivity	8/16/2023 12:55	1656.97	uS/cm
APCO-GS-CCB- MW-15	DO	DO	8/16/2023 12:55	0.39	mg/L
APCO-GS-CCB- MW-15	DTW	Depth to Water Detail	8/16/2023 12:55	67.94	ft
APCO-GS-CCB- MW-15	ORP	Oxidation Reduction Potential	8/16/2023 12:55	59.51	mv
APCO-GS-CCB- MW-15	PH	pH	8/16/2023 12:55	5.97	SU
APCO-GS-CCB- MW-15	SULFIDE	Sulfide	8/16/2023 12:55	0	mg/L
APCO-GS-CCB- MW-15	TEMP	Temperature	8/16/2023 12:55	20.76	C
APCO-GS-CCB- MW-15	TURB	Turbidity	8/16/2023 12:55	8.41	NTU
APCO-GS-CCB- MW-16	COND	Conductivity	8/16/2023 13:53	1849.22	uS/cm
APCO-GS-CCB- MW-16	DO	DO	8/16/2023 13:53	1	mg/L
APCO-GS-CCB- MW-16	DTW	Depth to Water Detail	8/16/2023 13:53	91.03	ft
APCO-GS-CCB- MW-16	ORP	Oxidation Reduction Potential	8/16/2023 13:53	8.85	mv
APCO-GS-CCB- MW-16	PH	pH	8/16/2023 13:53	6.35	SU
APCO-GS-CCB- MW-16	TEMP	Temperature	8/16/2023 13:53	20.68	C
APCO-GS-CCB- MW-16	TURB	Turbidity	8/16/2023 13:53	21.1	NTU
APCO-GS-CCB- MW-16	COND	Conductivity	8/16/2023 13:58	1768.38	uS/cm
APCO-GS-CCB- MW-16	DO	DO	8/16/2023 13:58	0.39	mg/L
APCO-GS-CCB- MW-16	DTW	Depth to Water Detail	8/16/2023 13:58	91.03	ft
APCO-GS-CCB- MW-16	ORP	Oxidation Reduction Potential	8/16/2023 13:58	4.29	mv
APCO-GS-CCB- MW-16	PH	pH	8/16/2023 13:58	6.47	SU
APCO-GS-CCB- MW-16	TEMP	Temperature	8/16/2023 13:58	20.52	C
APCO-GS-CCB- MW-16	TURB	Turbidity	8/16/2023 13:58	18.8	NTU
APCO-GS-CCB- MW-16	COND	Conductivity	8/16/2023 14:03	1748.07	uS/cm
APCO-GS-CCB- MW-16	DO	DO	8/16/2023 14:03	0.28	mg/L
APCO-GS-CCB- MW-16	DTW	Depth to Water Detail	8/16/2023 14:03	91.03	ft
APCO-GS-CCB- MW-16	ORP	Oxidation Reduction Potential	8/16/2023 14:03	3.85	mv
APCO-GS-CCB- MW-16	PH	pH	8/16/2023 14:03	6.5	SU
APCO-GS-CCB- MW-16	TEMP	Temperature	8/16/2023 14:03	20.56	C
APCO-GS-CCB- MW-16	TURB	Turbidity	8/16/2023 14:03	10.5	NTU
APCO-GS-CCB- MW-16	COND	Conductivity	8/16/2023 14:08	1739.77	uS/cm
APCO-GS-CCB- MW-16	DO	DO	8/16/2023 14:08	0.23	mg/L
APCO-GS-CCB- MW-16	DTW	Depth to Water Detail	8/16/2023 14:08	91.03	ft
APCO-GS-CCB- MW-16	ORP	Oxidation Reduction Potential	8/16/2023 14:08	4.46	mv
APCO-GS-CCB- MW-16	PH	pH	8/16/2023 14:08	6.48	SU
APCO-GS-CCB- MW-16	TEMP	Temperature	8/16/2023 14:08	20.71	C
APCO-GS-CCB- MW-16	TURB	Turbidity	8/16/2023 14:08	9.19	NTU
APCO-GS-CCB- MW-16	COND	Conductivity	8/16/2023 14:13	1733.66	uS/cm
APCO-GS-CCB- MW-16	DO	DO	8/16/2023 14:13	0.22	mg/L
APCO-GS-CCB- MW-16	DTW	Depth to Water Detail	8/16/2023 14:13	91.03	ft
APCO-GS-CCB- MW-16	ORP	Oxidation Reduction Potential	8/16/2023 14:13	5.29	mv
APCO-GS-CCB- MW-16	PH	pH	8/16/2023 14:13	6.47	SU
APCO-GS-CCB- MW-16	SULFIDE	Sulfide	8/16/2023 14:13	0	mg/L
APCO-GS-CCB- MW-16	TEMP	Temperature	8/16/2023 14:13	20.76	C
APCO-GS-CCB- MW-16	TURB	Turbidity	8/16/2023 14:13	8.28	NTU
APCO-GS-CCB- MW-17R	COND	Conductivity	8/16/2023 14:42	2206.48	uS/cm
APCO-GS-CCB- MW-17R	DO	DO	8/16/2023 14:42	1.46	mg/L
APCO-GS-CCB- MW-17R	DTW	Depth to Water Detail	8/16/2023 14:42	127.15	ft
APCO-GS-CCB- MW-17R	ORP	Oxidation Reduction Potential	8/16/2023 14:42	54.73	mv
APCO-GS-CCB- MW-17R	PH	pH	8/16/2023 14:42	5.69	SU
APCO-GS-CCB- MW-17R	TEMP	Temperature	8/16/2023 14:42	23.09	C
APCO-GS-CCB- MW-17R	TURB	Turbidity	8/16/2023 14:42	12.4	NTU
APCO-GS-CCB- MW-17R	COND	Conductivity	8/16/2023 14:47	2226.93	uS/cm
APCO-GS-CCB- MW-17R	DO	DO	8/16/2023 14:47	0.67	mg/L
APCO-GS-CCB- MW-17R	DTW	Depth to Water Detail	8/16/2023 14:47	127.19	ft
APCO-GS-CCB- MW-17R	ORP	Oxidation Reduction Potential	8/16/2023 14:47	50.43	mv
APCO-GS-CCB- MW-17R	PH	pH	8/16/2023 14:47	5.75	SU

Plant Gorgas CCB Landfills
Field Parameter Summary

Well ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO-GS-CCB- MW-17R	TEMP	Temperature	8/16/2023 14:47	23.83	C
APCO-GS-CCB- MW-17R	TURB	Turbidity	8/16/2023 14:47	8.23	NTU
APCO-GS-CCB- MW-17R	COND	Conductivity	8/16/2023 14:52	2236.82	uS/cm
APCO-GS-CCB- MW-17R	DO	DO	8/16/2023 14:52	0.55	mg/L
APCO-GS-CCB- MW-17R	DTW	Depth to Water Detail	8/16/2023 14:52	127.19	ft
APCO-GS-CCB- MW-17R	ORP	Oxidation Reduction Potential	8/16/2023 14:52	42.29	mv
APCO-GS-CCB- MW-17R	PH	pH	8/16/2023 14:52	5.87	SU
APCO-GS-CCB- MW-17R	TEMP	Temperature	8/16/2023 14:52	24.06	C
APCO-GS-CCB- MW-17R	TURB	Turbidity	8/16/2023 14:52	7.14	NTU
APCO-GS-CCB- MW-17R	COND	Conductivity	8/16/2023 14:57	2211.89	uS/cm
APCO-GS-CCB- MW-17R	DO	DO	8/16/2023 14:57	0.46	mg/L
APCO-GS-CCB- MW-17R	DTW	Depth to Water Detail	8/16/2023 14:57	127.19	ft
APCO-GS-CCB- MW-17R	ORP	Oxidation Reduction Potential	8/16/2023 14:57	36.34	mv
APCO-GS-CCB- MW-17R	PH	pH	8/16/2023 14:57	5.98	SU
APCO-GS-CCB- MW-17R	TEMP	Temperature	8/16/2023 14:57	24	C
APCO-GS-CCB- MW-17R	TURB	Turbidity	8/16/2023 14:57	6.68	NTU
APCO-GS-CCB- MW-17R	COND	Conductivity	8/16/2023 15:02	2224.25	uS/cm
APCO-GS-CCB- MW-17R	DO	DO	8/16/2023 15:02	0.44	mg/L
APCO-GS-CCB- MW-17R	DTW	Depth to Water Detail	8/16/2023 15:02	127.19	ft
APCO-GS-CCB- MW-17R	ORP	Oxidation Reduction Potential	8/16/2023 15:02	33.15	mv
APCO-GS-CCB- MW-17R	PH	pH	8/16/2023 15:02	6.03	SU
APCO-GS-CCB- MW-17R	SULFIDE	Sulfide	8/16/2023 15:02	0	mg/L
APCO-GS-CCB- MW-17R	TEMP	Temperature	8/16/2023 15:02	24	C
APCO-GS-CCB- MW-17R	TURB	Turbidity	8/16/2023 15:02	6.05	NTU

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

Analytical Report



Sample Group : WMWGORLF_1420

Project/Site : Gorgas Landfill
Parrish, AL 35580

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

Attention : Dustin Brooks & Greg Budd

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

September 07, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on August 17, 2023. 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, 2024

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

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.09.07
14:35:01 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske c=US
United States, o=US United States
e=tdmaske@southernco.com
Reason: I am the author of this document
Location:
Date: 2023-09-11 07:18:05-00



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.



Total Metals ICP

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	763769	WMWGORLF_1420
BD15732	763769	WMWGORLF_1420
BD15733	763769	WMWGORLF_1420
BD15734	763769	WMWGORLF_1420
BD15735	763769	WMWGORLF_1420
BD15736	763769	WMWGORLF_1420
BD15737	763769	WMWGORLF_1420
BD15738	763769	WMWGORLF_1420
BD15739	763769	WMWGORLF_1420
BD15740	763769	WMWGORLF_1420
BD15741	763770	WMWGORLF_1420
BD15742	763770	WMWGORLF_1420
BD15743	763770	WMWGORLF_1420
BD15744	763770	WMWGORLF_1420
BD15745	763770	WMWGORLF_1420
BD15746	763770	WMWGORLF_1420
BD15747	763770	WMWGORLF_1420
BD15748	763770	WMWGORLF_1420
BD15749	763770	WMWGORLF_1420
BD15750	763770	WMWGORLF_1420
BD15751	763771	WMWGORLF_1420

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.

- 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:
 - BD15750 Calcium, Iron, and Magnesium MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD15751 Calcium and Magnesium MS/MSD spike levels were less than 30% of the sample 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD15731	Calcium, Magnesium, Sodium	10.15
BD15733	Calcium, Iron, Magnesium, Sodium	10.15
BD15734	Calcium, Magnesium	10.15
BD15735	Calcium, Magnesium, Sodium	10.15
BD15736	Calcium, Magnesium, Sodium	10.15
BD15737	Calcium, Iron, Magnesium, Sodium	101.5
BD15738	Calcium, Magnesium	10.15
BD15739	Calcium	10.15
BD15741	Calcium, Iron, Magnesium	10.15
BD15742	Calcium, Iron, Magnesium	10.15
BD15743	Magnesium	10.15
BD15744	Calcium, Iron, Magnesium	101.5

Case Narrative

BD15746	Calcium, Magnesium, Sodium	101.5
BD15747	Calcium, Iron, Magnesium, Sodium	101.5
BD15748	Iron, Magnesium, Sodium	10.15
BD15749	Iron, Magnesium, Sodium	10.15
BD15750	Calcium, Magnesium	101.5
BD15751	Calcium, Magnesium	10.15
BD15739	Magnesium	101.5
BD15743	Calcium	101.5
BD15748	Calcium	101.5
BD15749	Calcium	101.5

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

Dissolved Metals ICP

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	763797	WMWGORLF_1420
BD15733	763797	WMWGORLF_1420
BD15734	763797	WMWGORLF_1420
BD15735	763797	WMWGORLF_1420
BD15736	763797	WMWGORLF_1420
BD15737	763797	WMWGORLF_1420
BD15738	763797	WMWGORLF_1420
BD15739	763797	WMWGORLF_1420
BD15741	763797	WMWGORLF_1420
BD15742	763797	WMWGORLF_1420
BD15743	763798	WMWGORLF_1420
BD15744	763798	WMWGORLF_1420
BD15746	763798	WMWGORLF_1420
BD15747	763798	WMWGORLF_1420
BD15748	763798	WMWGORLF_1420
BD15749	763798	WMWGORLF_1420
BD15750	763798	WMWGORLF_1420
BD15751	763798	WMWGORLF_1420

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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:
 - BD15742 Calcium, Iron, and Magnesium MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD15751 Calcium and Magnesium MS/MSD spike levels were less than 30% of the sample 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD15731	Calcium, Magnesium, Sodium	10.15
BD15733	Calcium, Iron, Magnesium, Sodium	10.15
BD15734	Calcium, Magnesium	10.15
BD15735	Calcium, Magnesium	10.15
BD15736	Calcium, Magnesium, Sodium	10.15
BD15737	Calcium, Iron, Magnesium, Sodium	101.5
BD15738	Calcium, Magnesium	10.15
BD15739	Calcium, Magnesium	10.15
BD15741	Calcium, Iron, Magnesium	10.15
BD15742	Calcium, Iron, Magnesium	10.15
BD15743	Calcium, Magnesium	10.15
BD15744	Calcium, Iron, Magnesium	101.5
BD15746	Calcium, Magnesium, Sodium	101.5
BD15747	Calcium, Iron, Magnesium, Sodium	101.5
BD15748	Calcium, Iron, Magnesium, Sodium	10.15
BD15749	Calcium, Iron, Magnesium, Sodium	10.15

Case Narrative

BD15750	Calcium, Magnesium	10.15
BD15751	Calcium, Magnesium	10.15

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

Total Metals ICPMS

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	764785	WMWGORLF_1420
BD15732	764785	WMWGORLF_1420
BD15733	764785	WMWGORLF_1420
BD15734	764785	WMWGORLF_1420
BD15735	764785	WMWGORLF_1420
BD15736	764785	WMWGORLF_1420
BD15737	764785	WMWGORLF_1420
BD15738	764785	WMWGORLF_1420
BD15739	764785	WMWGORLF_1420
BD15740	764785	WMWGORLF_1420
BD15741	764786	WMWGORLF_1420
BD15742	764786	WMWGORLF_1420
BD15743	764786	WMWGORLF_1420
BD15744	764786	WMWGORLF_1420
BD15745	764786	WMWGORLF_1420
BD15746	764786	WMWGORLF_1420
BD15747	764786	WMWGORLF_1420
BD15748	764786	WMWGORLF_1420
BD15749	764786	WMWGORLF_1420
BD15750	764786	WMWGORLF_1420
BD15751	764787	WMWGORLF_1420

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

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD15731	Manganese	5.075
BD15735	Manganese	5.075
BD15737	Manganese	92.365
BD15738	Manganese	5.075
BD15739	Manganese	5.075
BD15741	Manganese	92.365
BD15742	Manganese	92.365
BD15743	Manganese	5.075
BD15744	Manganese	92.365
BD15747	Manganese	10.15
BD15750	Manganese	5.075

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

Dissolved Metals ICPMS

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	764718	WMWGORLF_1420
BD15733	764718	WMWGORLF_1420
BD15734	764718	WMWGORLF_1420
BD15735	764718	WMWGORLF_1420
BD15736	764718	WMWGORLF_1420
BD15737	764718	WMWGORLF_1420
BD15738	764718	WMWGORLF_1420
BD15739	764718	WMWGORLF_1420
BD15741	764718	WMWGORLF_1420
BD15742	764718	WMWGORLF_1420
BD15743	764719	WMWGORLF_1420
BD15744	764719	WMWGORLF_1420
BD15746	764719	WMWGORLF_1420
BD15747	764719	WMWGORLF_1420
BD15748	764719	WMWGORLF_1420
BD15749	764719	WMWGORLF_1420
BD15750	764719	WMWGORLF_1420
BD15751	764719	WMWGORLF_1420

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.
- 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 ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BD15742 Manganese MS/MSD spike levels were less than 30% of the sample concentrations.
 - 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD15731	Manganese	5.075
BD15733	Manganese	5.075
BD15735	Manganese	5.075
BD15737	Manganese	92.365
BD15738	Manganese	5.075
BD15739	Manganese	5.075
BD15741	Manganese	92.365
BD15742	Manganese	92.365
BD15743	Manganese	5.075
BD15744	Manganese	92.365
BD15747	Manganese	10.15
BD15750	Manganese	5.075

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

Mercury

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	763707	WMWGORLF_1420
BD15732	763707	WMWGORLF_1420
BD15733	763707	WMWGORLF_1420
BD15734	763707	WMWGORLF_1420
BD15735	763707	WMWGORLF_1420
BD15736	763707	WMWGORLF_1420
BD15737	763707	WMWGORLF_1420
BD15738	763707	WMWGORLF_1420
BD15739	763707	WMWGORLF_1420
BD15740	763707	WMWGORLF_1420
BD15741	763708	WMWGORLF_1420
BD15742	763708	WMWGORLF_1420
BD15743	763708	WMWGORLF_1420
BD15744	763708	WMWGORLF_1420
BD15745	763708	WMWGORLF_1420
BD15746	763708	WMWGORLF_1420
BD15747	763708	WMWGORLF_1420
BD15748	763708	WMWGORLF_1420
BD15749	763708	WMWGORLF_1420
BD15750	763708	WMWGORLF_1420
BD15751	763938	WMWGORLF_1420

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 analytical batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met, except for the following:
 - BD15740 Precision is out of specification limit.
7. All samples were analyzed without a dilution.

Total Dissolved Solids

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	763503	WMWGORLF_1420
BD15732	763503	WMWGORLF_1420
BD15733	763503	WMWGORLF_1420
BD15734	763503	WMWGORLF_1420
BD15735	763503	WMWGORLF_1420
BD15736	763503	WMWGORLF_1420
BD15737	763504	WMWGORLF_1420
BD15738	763504	WMWGORLF_1420
BD15739	763504	WMWGORLF_1420
BD15740	763504	WMWGORLF_1420
BD15741	763504	WMWGORLF_1420
BD15742	763504	WMWGORLF_1420
BD15743	763504	WMWGORLF_1420
BD15744	763504	WMWGORLF_1420
BD15745	763504	WMWGORLF_1420
BD15746	763504	WMWGORLF_1420
BD15747	763874	WMWGORLF_1420
BD15748	763874	WMWGORLF_1420
BD15749	763874	WMWGORLF_1420
BD15750	763874	WMWGORLF_1420
BD15751	763874	WMWGORLF_1420

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
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:

- 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, and RPD was $\leq 10\%$.
- 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:
 - BD15732
 - BD15740
 - BD15745

Alkalinity

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15733	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15734	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15735	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15736	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15737	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15738	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15739	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15741	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15742	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15743	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15744	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15746	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15747	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15748	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15749	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15750	764714, 764715, 764716, 764717	WMWGORLF_1420
BD15751	764714, 764715, 764716, 764717	WMWGORLF_1420

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
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:

- 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.
7. The following samples had pH>10 and/or TDS>500mg/L. Therefore, the calculations for carbonate and bicarbonate are estimates:

- BD15731
- BD15733
- BD15734
- BD15735
- BD15736
- BD15737
- BD15738
- BD15739
- BD15741
- BD15742
- BD15743
- BD15744
- BD15746
- BD15747
- BD15748
- BD15749
- BD15750
- BD15751

Anions

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	763910, 763737, 764199	WMWGORLF_1420
BD15732	763910, 763737, 764199	WMWGORLF_1420
BD15733	763910, 763737, 764199	WMWGORLF_1420
BD15734	763910, 763737, 764199	WMWGORLF_1420
BD15735	763910, 763737, 764199	WMWGORLF_1420
BD15736	763910, 763737, 764199	WMWGORLF_1420
BD15737	763910, 763737, 764199	WMWGORLF_1420
BD15738	763910, 763737, 764199	WMWGORLF_1420
BD15739	763910, 763737, 764199	WMWGORLF_1420
BD15740	763910, 763737, 764199	WMWGORLF_1420
BD15741	763911, 763738, 764200	WMWGORLF_1420
BD15742	763911, 763738, 764200	WMWGORLF_1420
BD15743	763911, 763738, 764200	WMWGORLF_1420
BD15744	763911, 763738, 764200	WMWGORLF_1420
BD15745	763911, 763738, 764200	WMWGORLF_1420
BD15746	763911, 763738, 764200	WMWGORLF_1420
BD15747	763911, 763738, 764200	WMWGORLF_1420
BD15748	763911, 763738, 764200	WMWGORLF_1420
BD15749	763911, 763738, 764200	WMWGORLF_1420
BD15750	763911, 763738, 764200	WMWGORLF_1420
BD15751	763912, 763739, 764201	WMWGORLF_1420

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

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD15731	Chloride, Sulfate	4, 50
BD15733	Sulfate	32
BD15734	Sulfate	80
BD15735	Sulfate	80
BD15736	Chloride, Sulfate	4, 80
BD15737	Sulfate	100
BD15738	Sulfate	80
BD15739	Sulfate	100
BD15741	Sulfate	50
BD15742	Sulfate	50
BD15743	Sulfate	50
BD15744	Sulfate	100
BD15746	Sulfate	100
BD15747	Sulfate	100
BD15748	Chloride, Sulfate	5, 50
BD15749	Chloride, Sulfate	5, 50
BD15750	Sulfate	160
BD15751	Sulfate	160

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

Nitrate-Nitrite

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	763888	WMWGORLF_1420
BD15732	763888	WMWGORLF_1420
BD15733	763888	WMWGORLF_1420
BD15734	763888	WMWGORLF_1420
BD15735	763888	WMWGORLF_1420
BD15736	763888	WMWGORLF_1420
BD15737	763888	WMWGORLF_1420
BD15738	763888	WMWGORLF_1420
BD15739	763888	WMWGORLF_1420
BD15740	763888	WMWGORLF_1420
BD15741	763889	WMWGORLF_1420
BD15742	763889	WMWGORLF_1420
BD15743	763889	WMWGORLF_1420
BD15744	763889	WMWGORLF_1420
BD15745	763889	WMWGORLF_1420
BD15746	763889	WMWGORLF_1420
BD15747	763889	WMWGORLF_1420
BD15748	763889	WMWGORLF_1420
BD15749	763889	WMWGORLF_1420
BD15750	763889	WMWGORLF_1420
BD15751	763890	WMWGORLF_1420

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
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.
- 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.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
 - 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.
7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Gorgas Landfill

WMWGORLF_1420

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15731	763686	WMWGORLF_1420
BD15732	763686	WMWGORLF_1420
BD15733	763686	WMWGORLF_1420
BD15734	763686	WMWGORLF_1420
BD15735	763686	WMWGORLF_1420
BD15736	763686	WMWGORLF_1420
BD15737	763686	WMWGORLF_1420
BD15738	763686	WMWGORLF_1420
BD15739	763686	WMWGORLF_1420
BD15740	763686	WMWGORLF_1420
BD15741	763687	WMWGORLF_1420
BD15742	763687	WMWGORLF_1420
BD15743	763687	WMWGORLF_1420
BD15744	763687	WMWGORLF_1420
BD15745	763687	WMWGORLF_1420
BD15746	763687	WMWGORLF_1420
BD15747	763687	WMWGORLF_1420
BD15748	763687	WMWGORLF_1420
BD15749	763687	WMWGORLF_1420
BD15750	763687	WMWGORLF_1420
BD15751	763844	WMWGORLF_1420

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
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 criteria were 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 was <1/2RL.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were <1/2RL.

Matrix Specific Quality Control Procedures:

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

Certificate Of Analysis

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF
Collected: 8/15/23 11:14
Customer ID:
Submittal Date: 8/17/23 08:50

Laboratory ID Number: BD15731

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/21/23 13:38		1.015	0.105	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 11:30	8/22/23 14:09		10.15	367	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/21/23 13:38		1.015	4.03	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 11:30	8/21/23 13:38		1.015	0.197	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:09		10.15	194	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/21/23 13:38		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 13:38		1	21.8	mg/L			
* Silicon, Total	8/18/23 11:30	8/21/23 13:38		1.015	10.2	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:09		10.15	164	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/18/23 14:30	8/23/23 12:59		1.015	0.102	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:20		10.15	360	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/23/23 12:59		1.015	4.01	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 12:59		1.015	0.193	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:20		10.15	188	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 12:59		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 12:59		1	21.1	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 12:59		1.015	9.87	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 12:20		10.15	154	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 12:47		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 11:30	8/18/23 12:47		1.015	0.000825	mg/L	0.000112	0.000203	
* Aluminum, Total	8/18/23 11:30	8/18/23 12:47		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/18/23 11:30	8/18/23 12:47		1.015	0.0135	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 12:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 12:47		1.015	0.000258	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 12:47		1.015	0.000894	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/21/23 11:16		5.075	1.35	mg/L	0.000761	0.005075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF
Collected: 8/15/23 11:14
Customer ID:
Submittal Date: 8/17/23 08:50

Laboratory ID Number: BD15731

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 12:47		1.015	5.93	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 12:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	0.000880	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	0.0152	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	0.000275	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	0.00106	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:34		5.075	1.50	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	6.15	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:07	8/18/23 10:07		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	280	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2130	mg/L		125	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	280	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.52	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-11

Location Code: WMWGORLF

Collected: 8/15/23 11:14

Customer ID:

Submittal Date: 8/17/23 08:50

Laboratory ID Number: BD15731

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 15:55	8/17/23 15:55		1	1.49	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:26	8/18/23 09:26		4	50.4	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:00	8/17/23 13:00		1	0.122	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:41	8/23/23 11:41		50	1280	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/15/23 11:11	8/15/23 11:11			2115.88	uS/cm			FA
pH	8/15/23 11:11	8/15/23 11:11			7.62	SU			FA
Temperature	8/15/23 11:11	8/15/23 11:11			23.14	C			FA
Turbidity	8/15/23 11:11	8/15/23 11:11			2.6	NTU			FA
Sulfide	8/15/23 11:11	8/15/23 11:11			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 11:14

Customer ID:

Delivery Date: 8/17/23 08:50

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BD15731

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 11:14

Customer ID:

Delivery Date: 8/17/23 08:50

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BD15731

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 8/15/23 11:14
Customer ID:
Delivery Date: 8/17/23 08:50

Description: Gorgas Landfill - MW-11

Laboratory ID Number: BD15731

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15736	Solids, Dissolved	mg/L	1.00	25.0			2230	49.0	40.0 to 60.0			0.449	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-1

Location Code: WMWGORLFFB
Collected: 8/15/23 11:55
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15732

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 11:30	8/21/23 13:42		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 11:30	8/24/23 10:55		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	8/18/23 11:30	8/21/23 13:42		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/18/23 11:30	8/21/23 13:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 11:30	8/21/23 13:42		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	8/18/23 11:30	8/21/23 13:42		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 13:42		1	Not Detected	mg/L				
* Silicon, Total	8/18/23 11:30	8/21/23 13:42		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/18/23 11:30	8/21/23 13:42		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/18/23 11:30	8/18/23 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ABB								
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:18		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/18/23 10:08	8/18/23 10:08		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-1

Location Code: WMWGORLFFB

Collected: 8/15/23 11:55

Customer ID:

Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15732

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 16:11	8/17/23 16:11		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/18/23 09:13	8/18/23 09:13		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:01	8/17/23 13:01		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:28	8/23/23 11:28		1	0.979	mg/L	0.6	2	J

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

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 8/15/23 11:55

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Field Blank-1

Laboratory ID Number: BD15732

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 8/15/23 11:55

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Field Blank-1

Laboratory ID Number: BD15732

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Standard			Limit	Rec	Limit	Prec		
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115		100	70.0 to 130		1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6			100	80.0 to 120		12.3	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 8/15/23 11:55

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Field Blank-1

Laboratory ID Number: BD15732

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15736	Solids, Dissolved	mg/L	1.00	25.0			2230	49.0	40.0 to 60.0			0.449	10.0

Comments:

Certificate Of Analysis

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 8/15/23 13:23
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15733

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/21/23 13:45		1.015	0.146	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 11:30	8/22/23 14:12		10.15	188	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/22/23 14:12		10.15	9.32	mg/L	0.08120	0.406	
* Lithium, Total	8/18/23 11:30	8/21/23 13:45		1.015	0.153	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:12		10.15	99.1	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/21/23 13:45		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 13:45		1	11.9	mg/L			
* Silicon, Total	8/18/23 11:30	8/21/23 13:45		1.015	5.56	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:12		10.15	109	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:02		1.015	0.168	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:23		10.15	186	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/24/23 12:23		10.15	11.1	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:02		1.015	0.152	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:23		10.15	95.4	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:02		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:02		1	12.4	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:02		1.015	5.80	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 12:23		10.15	94.4	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 12:54		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 11:30	8/18/23 12:54		1.015	0.000759	mg/L	0.000112	0.000203	
* Aluminum, Total	8/18/23 11:30	8/18/23 12:54		1.015	0.458	mg/L	0.009135	0.05075	
* Barium, Total	8/18/23 11:30	8/18/23 12:54		1.015	0.0195	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 12:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 12:54		1.015	0.000265	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 12:54		1.015	0.00267	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 12:54		1.015	0.000201	mg/L	0.000068	0.000203	J
* Manganese, Total	8/18/23 11:30	8/18/23 12:54		1.015	0.928	mg/L	0.000152	0.001015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 8/15/23 13:23
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15733

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 12:54		1.015	4.72	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	0.000875	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	0.0214	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	0.00430	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/23/23 09:31		5.075	1.21	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	5.14	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:10	8/18/23 10:10		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	187	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	1050	mg/L		50	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	187	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.51	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-10

Location Code: WMWGORLF
Collected: 8/15/23 13:23
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15733

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 16:24	8/17/23 16:24		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:14	8/18/23 09:14		1	3.54	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:02	8/17/23 13:02		1	0.0889	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:43	8/23/23 11:43		32	631	mg/L	19.2	64	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/15/23 13:19	8/15/23 13:19			1123.05	uS/cm			FA
pH	8/15/23 13:19	8/15/23 13:19			7.53	SU			FA
Temperature	8/15/23 13:19	8/15/23 13:19			24.75	C			FA
Turbidity	8/15/23 13:19	8/15/23 13:19			9.72	NTU			FA
Sulfide	8/15/23 13:19	8/15/23 13:19			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 13:23

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BD15733

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 13:23

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BD15733

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 13:23

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-10

Laboratory ID Number: BD15733

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15736	Solids, Dissolved	mg/L	1.00	25.0			2230	49.0	40.0 to 60.0			0.449	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 8/15/23 15:02
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15734

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/21/23 13:48		1.015	0.0654	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:15		10.15	328	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/21/23 13:48		1.015	2.69	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 11:30	8/21/23 13:48		1.015	0.117	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:15		10.15	332	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/21/23 13:48		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 13:48		1	11.2	mg/L			
* Silicon, Total	8/18/23 11:30	8/21/23 13:48		1.015	5.22	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/21/23 13:48		1.015	36.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:05		1.015	0.0632	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:27		10.15	320	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/23/23 13:05		1.015	0.901	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:05		1.015	0.113	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:27		10.15	318	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:05		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:05		1	10.8	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:05		1.015	5.05	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/23/23 13:05		1.015	35.8	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 12:58		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 12:58		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	8/18/23 11:30	8/18/23 12:58		1.015	0.00163	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 12:58		1.015	0.0129	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 12:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 12:58		1.015	0.000211	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 12:58		1.015	0.00596	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 12:58		1.015	0.000178	mg/L	0.000068	0.000203	J
* Manganese, Total	8/18/23 11:30	8/18/23 12:58		1.015	0.903	mg/L	0.000152	0.001015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 8/15/23 15:02
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15734

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 12:58		1.015	7.48	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	0.000396	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	0.0136	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	0.000262	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	0.00556	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	0.909	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	7.58	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:12	8/18/23 10:12		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	360	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2410	mg/L		100	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	360	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.45	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-8

Location Code: WMWGORLF
Collected: 8/15/23 15:02
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15734

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 16:38	8/17/23 16:38		1	1.39	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:15	8/18/23 09:15		1	4.92	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:03	8/17/23 13:03		1	0.174	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:44	8/23/23 11:44		80	1480	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/15/23 14:59	8/15/23 14:59			1793.82	uS/cm			FA
pH	8/15/23 14:59	8/15/23 14:59			7.58	SU			FA
Temperature	8/15/23 14:59	8/15/23 14:59			26.03	C			FA
Turbidity	8/15/23 14:59	8/15/23 14:59			9.69	NTU			FA
Sulfide	8/15/23 14:59	8/15/23 14:59			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 15:02

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BD15734

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 8/15/23 15:02
Customer ID:
Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BD15734

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 15:02

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-8

Laboratory ID Number: BD15734

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15736	Solids, Dissolved	mg/L	1.00	25.0			2230	49.0	40.0 to 60.0			0.449	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 8/15/23 16:06
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15735

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/21/23 13:51		1.015	0.0663	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:18		10.15	339	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/21/23 13:51		1.015	2.30	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 11:30	8/21/23 13:51		1.015	0.0977	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:18		10.15	302	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/21/23 13:51		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 13:51		1	10.7	mg/L			
* Silicon, Total	8/18/23 11:30	8/21/23 13:51		1.015	5.01	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:18		10.15	49.5	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:08		1.015	0.0658	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:30		10.15	324	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/23/23 13:08		1.015	2.11	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:08		1.015	0.0892	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:30		10.15	292	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:08		1	10.6	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:08		1.015	4.96	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/23/23 13:08		1.015	39.2	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 13:02		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 13:02		1.015	0.0445	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/18/23 11:30	8/18/23 13:02		1.015	0.00164	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 13:02		1.015	0.0132	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 13:02		1.015	0.000260	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 13:02		1.015	0.00391	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/21/23 11:20		5.075	1.93	mg/L	0.000761	0.005075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF
Collected: 8/15/23 16:06
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15735

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:02		1.015	6.40	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	0.00157	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	0.0133	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	0.00420	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:48		5.075	2.08	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	6.56	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:14	8/18/23 10:14		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	304	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2270	mg/L		75.8	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	304	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.51	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-7

Location Code: WMWGORLF

Collected: 8/15/23 16:06

Customer ID:

Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15735

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 16:56	8/17/23 16:56	1		1.36	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:16	8/18/23 09:16	1		6.51	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:05	8/17/23 13:05	1		0.154	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:45	8/23/23 11:45	80		1360	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/15/23 16:03	8/15/23 16:03			1591.01	uS/cm			FA
pH	8/15/23 16:03	8/15/23 16:03			7.47	SU			FA
Temperature	8/15/23 16:03	8/15/23 16:03			20.57	C			FA
Turbidity	8/15/23 16:03	8/15/23 16:03			7.68	NTU			FA
Sulfide	8/15/23 16:03	8/15/23 16:03			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 16:06

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BD15735

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 16:06

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BD15735

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/15/23 16:06

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-7

Laboratory ID Number: BD15735

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15736	Solids, Dissolved	mg/L	1.00	25.0			2230	49.0	40.0 to 60.0			0.449	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 8/16/23 07:57
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15736

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/21/23 13:54		1.015	0.152	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 11:30	8/22/23 14:21		10.15	319	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/21/23 13:54		1.015	3.46	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 11:30	8/21/23 13:54		1.015	0.280	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:21		10.15	208	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/21/23 13:54		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 13:54		1	15.2	mg/L			
* Silicon, Total	8/18/23 11:30	8/21/23 13:54		1.015	7.10	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:21		10.15	181	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:11		1.015	0.149	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:33		10.15	341	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/23/23 13:11		1.015	3.41	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:11		1.015	0.283	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:33		10.15	220	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:11		1	15.0	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:11		1.015	7.01	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 12:33		10.15	187	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 13:05		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 13:05		1.015	0.0505	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/18/23 11:30	8/18/23 13:05		1.015	0.00370	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 13:05		1.015	0.0197	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 13:05		1.015	0.000252	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 13:05		1.015	0.000175	mg/L	0.000068	0.000203	J
* Lead, Total	8/18/23 11:30	8/18/23 13:05		1.015	0.000104	mg/L	0.000068	0.000203	J
* Manganese, Total	8/18/23 11:30	8/18/23 13:05		1.015	0.449	mg/L	0.000152	0.001015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 8/16/23 07:57
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15736

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:05		1.015	7.07	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	0.00375	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	0.0178	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	0.465	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	7.06	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:16	8/18/23 10:16		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	286	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2220	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	285	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	0.995	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.50	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12V

Location Code: WMWGORLF
Collected: 8/16/23 07:57
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15736

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 17:11	8/17/23 17:11		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:27	8/18/23 09:27		4	41.3	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:06	8/17/23 13:06		1	0.152	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:46	8/23/23 11:46		80	1300	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 07:54	8/16/23 07:54			2498.91	uS/cm			FA
pH	8/16/23 07:54	8/16/23 07:54			6.91	SU			FA
Temperature	8/16/23 07:54	8/16/23 07:54			21.77	C			FA
Turbidity	8/16/23 07:54	8/16/23 07:54			4.96	NTU			FA
Sulfide	8/16/23 07:54	8/16/23 07:54			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 07:57

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BD15736

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 07:57

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BD15736

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 07:57

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-12V

Laboratory ID Number: BD15736

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15736	Solids, Dissolved	mg/L	1.00	25.0			2230	49.0	40.0 to 60.0			0.449	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 8/16/23 09:03
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15737

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/21/23 13:58		1.015	0.165	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 11:30	8/22/23 14:24		101.5	313	mg/L	7.0035	40.6	
* Iron, Total	8/18/23 11:30	8/22/23 14:24		101.5	160	mg/L	0.8120	4.06	
* Lithium, Total	8/18/23 11:30	8/21/23 13:58		1.015	0.0612	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:24		101.5	359	mg/L	2.1315	40.6	
* Molybdenum, Total	8/18/23 11:30	8/21/23 13:58		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 13:58		1	30.2	mg/L			
* Silicon, Total	8/18/23 11:30	8/21/23 13:58		1.015	14.1	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:24		101.5	46.0	mg/L	4.060	40.6	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:14		1.015	0.159	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:36		101.5	311	mg/L	7.0035	40.6	
* Iron, Dissolved	8/18/23 14:30	8/24/23 12:36		101.5	156	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:14		1.015	0.0583	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:36		101.5	361	mg/L	2.1315	40.6	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:14		1	30.2	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:14		1.015	14.1	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 12:36		101.5	45.3	mg/L	4.060	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 13:09		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.0714	mg/L	0.000112	0.000203	
* Aluminum, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.0101	mg/L	0.009135	0.05075	J
* Barium, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.0105	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.0000871	mg/L	0.000068	0.000203	J
* Chromium, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.000370	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.0527	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.000531	mg/L	0.000068	0.000203	
* Manganese, Total	8/18/23 11:30	8/21/23 11:23		92.365	19.9	mg/L	0.013855	0.092365	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 8/16/23 09:03
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15737

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:09		1.015	22.2	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:09		1.015	0.0000974	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	0.0672	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	0.0111	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	0.0507	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	0.0000879	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:52		92.365	21.1	mg/L	0.013855	0.092365	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	23.3	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:38		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:18	8/18/23 10:18		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	234	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	3780	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	234	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.55	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-12

Location Code: WMWGORLF
Collected: 8/16/23 09:03
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15737

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 17:24	8/17/23 17:24		1	4.85	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:19	8/18/23 09:19		1	11.0	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:07	8/17/23 13:07		1	0.134	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:47	8/23/23 11:47		100	2320	mg/L	60.0	200	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 09:00	8/16/23 09:00			2513.81	uS/cm			FA
pH	8/16/23 09:00	8/16/23 09:00			5.81	SU			FA
Temperature	8/16/23 09:00	8/16/23 09:00			22.33	C			FA
Turbidity	8/16/23 09:00	8/16/23 09:00			6.87	NTU			FA
Sulfide	8/16/23 09:00	8/16/23 09:00			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 09:03

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BD15737

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 09:03

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BD15737

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 09:03

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-12

Laboratory ID Number: BD15737

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 8/16/23 10:22
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15738

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 11:30	8/21/23 14:01		1.015	0.0557	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/18/23 11:30	8/22/23 14:28		10.15	308	mg/L	0.70035	4.06		
* Iron, Total	8/18/23 11:30	8/21/23 14:01		1.015	0.217	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 11:30	8/21/23 14:01		1.015	0.0172	mg/L	0.007105	0.01999956	J	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:28		10.15	360	mg/L	0.21315	4.06		
* Molybdenum, Total	8/18/23 11:30	8/21/23 14:01		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 14:01		1	9.10	mg/L				
* Silicon, Total	8/18/23 11:30	8/21/23 14:01		1.015	4.25	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 11:30	8/21/23 14:01		1.015	35.3	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:18		1.015	0.0549	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:39		10.15	286	mg/L	0.70035	4.06		
* Iron, Dissolved	8/18/23 14:30	8/23/23 13:18		1.015	0.0392	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:18		1.015	0.0169	mg/L	0.007105	0.01999956	J	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:39		10.15	339	mg/L	0.21315	4.06		
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:18		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:18		1	9.03	mg/L				
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:18		1.015	4.22	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 14:30	8/23/23 13:18		1.015	37.9	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 11:30	8/18/23 13:12		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 11:30	8/18/23 13:12		1.015	0.0142	mg/L	0.009135	0.05075	J	
* Arsenic, Total	8/18/23 11:30	8/18/23 13:12		1.015	0.000320	mg/L	0.000112	0.000203		
* Barium, Total	8/18/23 11:30	8/18/23 13:12		1.015	0.0108	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 11:30	8/18/23 13:12		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 11:30	8/18/23 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 11:30	8/18/23 13:12		1.015	0.000215	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/18/23 11:30	8/18/23 13:12		1.015	0.00716	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 11:30	8/18/23 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 11:30	8/21/23 11:27		5.075	3.72	mg/L	0.000761	0.005075		

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 8/16/23 10:22
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15738

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:12		1.015	7.70	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:12		1.015	0.000865	mg/L	0.000508	0.001015	J
* Thallium, Total	8/18/23 11:30	8/18/23 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	0.000125	mg/L	0.000112	0.000203	J
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	0.0109	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	0.000213	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	0.00684	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:55		5.075	3.27	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	8.18	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	0.00115	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:19	8/18/23 10:19		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	244	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2440	mg/L		100	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	244	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.48	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-13

Location Code: WMWGORLF
Collected: 8/16/23 10:22
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15738

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 17:40	8/17/23 17:40		1	2.01	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:20	8/18/23 09:20		1	1.80	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:08	8/17/23 13:08		1	0.174	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:49	8/23/23 11:49		80	1490	mg/L	48.0	160	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 10:19	8/16/23 10:19			1922.86	uS/cm			FA
pH	8/16/23 10:19	8/16/23 10:19			6.51	SU			FA
Temperature	8/16/23 10:19	8/16/23 10:19			21.49	C			FA
Turbidity	8/16/23 10:19	8/16/23 10:19			6.3	NTU			FA
Sulfide	8/16/23 10:19	8/16/23 10:19			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 10:22

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BD15738

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 10:22

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BD15738

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 10:22

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-13

Laboratory ID Number: BD15738

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 8/16/23 12:12
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15739

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/21/23 14:04		1.015	0.0452	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:31		10.15	360	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/21/23 14:04		1.015	1.08	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 11:30	8/21/23 14:04		1.015	0.0315	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 15:56		101.5	414	mg/L	2.1315	40.6	
* Molybdenum, Total	8/18/23 11:30	8/21/23 14:04		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 14:04		1	11.3	mg/L			
* Silicon, Total	8/18/23 11:30	8/21/23 14:04		1.015	5.30	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/21/23 14:04		1.015	27.3	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:21		1.015	0.0447	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:43		10.15	333	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/23/23 13:21		1.015	0.856	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:21		1.015	0.0308	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:43		10.15	386	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:21		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:21		1	11.1	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:21		1.015	5.21	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/23/23 13:21		1.015	27.2	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 13:16		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.00144	mg/L	0.000112	0.000203	
* Aluminum, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.150	mg/L	0.009135	0.05075	
* Barium, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.0126	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.000157	mg/L	0.000068	0.000203	J
* Chromium, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.000606	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.0107	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.000235	mg/L	0.000068	0.000203	
* Manganese, Total	8/18/23 11:30	8/21/23 11:31		5.075	1.92	mg/L	0.000761	0.005075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 8/16/23 12:12
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15739

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:16		1.015	7.82	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:16		1.015	0.0000804	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	0.00120	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	0.0108	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	0.000152	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	0.0102	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:59		5.075	1.90	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	7.71	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:21	8/18/23 10:21		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	258	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2790	mg/L		100	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	258	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.50	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-14

Location Code: WMWGORLF
Collected: 8/16/23 12:12
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15739

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 17:57	8/17/23 17:57		1	1.30	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:21	8/18/23 09:21		1	2.14	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:09	8/17/23 13:09		1	0.196	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:50	8/23/23 11:50		100	1680	mg/L	60.0	200	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 12:09	8/16/23 12:09			1892.39	uS/cm			FA
pH	8/16/23 12:09	8/16/23 12:09			6.62	SU			FA
Temperature	8/16/23 12:09	8/16/23 12:09			20.40	C			FA
Turbidity	8/16/23 12:09	8/16/23 12:09			9.16	NTU			FA
Sulfide	8/16/23 12:09	8/16/23 12:09			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:12

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BD15739

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:12

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BD15739

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:12

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-14

Laboratory ID Number: BD15739

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-2

Location Code: WMWGORLFFB
Collected: 8/16/23 12:40
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15740

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 11:30	8/21/23 14:07		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 11:30	8/24/23 10:58		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	8/18/23 11:30	8/21/23 14:07		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/18/23 11:30	8/21/23 14:07		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 11:30	8/21/23 14:07		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	8/18/23 11:30	8/21/23 14:07		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 11:30	8/21/23 14:07		1	Not Detected	mg/L				
* Silicon, Total	8/18/23 11:30	8/21/23 14:07		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/18/23 11:30	8/21/23 14:07		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/18/23 11:30	8/18/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ABB								
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 21:49		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/18/23 10:23	8/18/23 10:23		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	Not Detected	mg/L		25	U	

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

Comments: Precision is out of specification limit for Mercury.

Certificate Of Analysis

Description: Gorgas Landfill Field Blank-2

Location Code: WMWGORLFFB

Collected: 8/16/23 12:40

Customer ID:

Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15740

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 18:11	8/17/23 18:11		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/18/23 09:22	8/18/23 09:22		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:11	8/17/23 13:11		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 11:38	8/23/23 11:38		1	0.765	mg/L	0.6	2	J

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

Comments: Precision is out of specification limit for Mercury.

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 8/16/23 12:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Field Blank-2

Laboratory ID Number: BD15740

Sample	Analysis	Units	MB				Standard		Rec			Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15740	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.0961	0.0937	0.101	0.0850 to 0.115	96.1	70.0 to 130	2.53	20.0
BD15740	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0929	0.0912	0.0915	0.0850 to 0.115	92.9	70.0 to 130	1.85	20.0
BD15740	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15740	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.0964	0.0936	0.0933	0.0850 to 0.115	96.4	70.0 to 130	2.95	20.0
BD15740	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.110	0.111	0.101	0.0850 to 0.115	110	70.0 to 130	0.905	20.0
BD15740	Boron, Total	mg/L	-0.000022	0.0650	1.00	0.985	0.975	0.993	0.850 to 1.15	98.5	70.0 to 130	1.02	20.0
BD15740	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.103	0.100	0.101	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD15740	Calcium, Total	mg/L	-0.0174	0.152	5.00	4.84	4.82	4.91	4.25 to 5.75	96.8	70.0 to 130	0.414	20.0
BD15740	Chloride	mg/L	-0.0296	1.00	10.0	9.92	10.0	9.95	9.00 to 11.0	99.2	80.0 to 120	0.803	20.0
BD15740	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0990	0.0991	0.0985	0.0850 to 0.115	99.0	70.0 to 130	0.101	20.0
BD15740	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.103	0.102	0.101	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15740	Fluoride	mg/L	0.0164	0.125	2.50	2.61	2.66	2.56	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15740	Iron, Total	mg/L	0.00125	0.0176	0.2	0.192	0.192	0.196	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15740	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0993	0.0968	0.0970	0.0850 to 0.115	99.3	70.0 to 130	2.55	20.0
BD15740	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.206	0.209	0.193	0.170 to 0.230	103	70.0 to 130	1.45	20.0
BD15740	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	5.02	4.99	4.94	4.25 to 5.75	100	70.0 to 130	0.599	20.0
BD15740	Manganese, Total	mg/L	0.0000037	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15740	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00324	0.00409	0.00379	0.00340 to 0.00460	81.0	70.0 to 130	23.2	20.0
BD15740	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.194	0.197	0.170 to 0.230	97.0	70.0 to 130	0.00	20.0
BD15740	Potassium, Total	mg/L	-0.00486	0.367	10.0	9.90	9.88	9.95	8.50 to 11.5	99.0	70.0 to 130	0.202	20.0
BD15740	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.105	0.103	0.106	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD15740	Silicon, Total	mg/L	-0.00039	0.0440	1.00	0.992	0.984	0.994	0.850 to 1.15	99.2	70.0 to 130	0.810	20.0
BD15740	Sodium, Total	mg/L	0.000994	0.0880	5.00	5.16	5.24	4.88	4.25 to 5.75	103	70.0 to 130	1.54	20.0
BD15740	Sulfate	mg/L	0.292	2.0	20.0	20.5	20.4	19.9	18.0 to 22.0	98.7	80.0 to 120	0.489	20.0

Comments: Precision is out of specification limit for Mercury.

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 8/16/23 12:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Field Blank-2

Laboratory ID Number: BD15740

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard Limit	Rec		Prec	Prec Limit
				Limit	Spike	MS	Rec				Limit			
BD15740	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.100	0.0981	0.0994	0.0850 to 0.115	100	70.0 to 130	1.92	20.0	
BD15740	Total Organic Carbon	mg/L	0.158	1.00	10.0	10.0	8.84	23.6		100	80.0 to 120	12.3	20.0	

Comments: Precision is out of specification limit for Mercury.

Batch QC Summary

Customer Account: WMWGORLFFB

Sample Date: 8/16/23 12:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Field Blank-2

Laboratory ID Number: BD15740

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15740	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.06	-0.078	2.04	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Precision is out of specification limit for Mercury.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 8/16/23 12:59
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15741

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:20		1.015	0.0467	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:34		10.15	299	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/22/23 14:34		10.15	24.1	mg/L	0.08120	0.406	
* Lithium, Total	8/18/23 11:30	8/22/23 11:20		1.015	0.0525	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:34		10.15	322	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:20		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:20		1	21.4	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:20		1.015	10.0	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 11:20		1.015	23.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:24		1.015	0.0436	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:46		10.15	255	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/24/23 12:46		10.15	19.1	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:24		1.015	0.0540	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:46		10.15	269	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:24		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:24		1	20.9	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:24		1.015	9.77	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/23/23 13:24		1.015	25.1	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 11:30	8/18/23 13:41		1.015	0.000301	mg/L	0.000112	0.000203	
* Aluminum, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/18/23 11:30	8/18/23 13:41		1.015	0.0110	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/18/23 11:30	8/18/23 13:41		1.015	0.0703	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/21/23 16:08		92.365	13.5	mg/L	0.013855	0.092365	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 8/16/23 12:59
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15741

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:41		1.015	5.00	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	0.000211	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	0.0117	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	0.0708	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 13:02		92.365	14.2	mg/L	0.013855	0.092365	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	5.11	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:32	8/18/23 10:32		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	155	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2380	mg/L		100	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	155	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.46	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15

Location Code: WMWGORLF
Collected: 8/16/23 12:59
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15741

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 19:20	8/17/23 19:20		1	1.12	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:37	8/18/23 09:37		1	2.22	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:22	8/17/23 13:22		1	0.235	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:22	8/23/23 12:22		50	1530	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 12:55	8/16/23 12:55			1656.97	uS/cm			FA
pH	8/16/23 12:55	8/16/23 12:55			5.97	SU			FA
Temperature	8/16/23 12:55	8/16/23 12:55			20.76	C			FA
Turbidity	8/16/23 12:55	8/16/23 12:55			8.41	NTU			FA
Sulfide	8/16/23 12:55	8/16/23 12:55			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:59

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BD15741

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:59

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BD15741

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:59

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-15

Laboratory ID Number: BD15741

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15 Dup

Location Code: WMWGORLF
Collected: 8/16/23 12:59
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15742

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:23		1.015	0.0465	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:37		10.15	316	mg/L	0.70035	4.06	
* Iron, Total	8/18/23 11:30	8/22/23 14:37		10.15	24.3	mg/L	0.08120	0.406	
* Lithium, Total	8/18/23 11:30	8/22/23 11:23		1.015	0.0523	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:37		10.15	327	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:23		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:23		1	21.4	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:23		1.015	10.0	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 11:23		1.015	23.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/18/23 14:30	8/23/23 13:27		1.015	0.0435	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 12:49		10.15	266	mg/L	0.70035	4.06	RA
* Iron, Dissolved	8/18/23 14:30	8/24/23 12:49		10.15	20.0	mg/L	0.08120	0.406	RA
* Lithium, Dissolved	8/18/23 14:30	8/23/23 13:27		1.015	0.0517	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 12:49		10.15	282	mg/L	0.21315	4.06	RA
* Molybdenum, Dissolved	8/18/23 14:30	8/23/23 13:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/23/23 13:27		1	20.7	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/23/23 13:27		1.015	9.68	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/23/23 13:27		1.015	23.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 11:30	8/18/23 13:45		1.015	0.000341	mg/L	0.000112	0.000203	
* Aluminum, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/18/23 11:30	8/18/23 13:45		1.015	0.0110	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/18/23 11:30	8/18/23 13:45		1.015	0.0698	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/23/23 09:34		92.365	13.7	mg/L	0.013855	0.092365	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15 Dup

Location Code: WMWGORLF
Collected: 8/16/23 12:59
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15742

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:45		1.015	4.87	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	0.000240	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	0.0118	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	0.0713	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 13:06		92.365	14.3	mg/L	0.013855	0.092365	RA
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	5.20	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:34	8/18/23 10:34		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	154	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2360	mg/L		100	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	154	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.45	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-15 Dup

Location Code: WMWGORLF

Collected: 8/16/23 12:59

Customer ID:

Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15742

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 19:37	8/17/23 19:37		1	1.16	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:38	8/18/23 09:38		1	2.29	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:23	8/17/23 13:23		1	0.218	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:23	8/23/23 12:23		50	1540	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 12:55	8/16/23 12:55			1656.97	uS/cm			FA
pH	8/16/23 12:55	8/16/23 12:55			5.97	SU			FA
Temperature	8/16/23 12:55	8/16/23 12:55			20.76	C			FA
Turbidity	8/16/23 12:55	8/16/23 12:55			8.41	NTU			FA
Sulfide	8/16/23 12:55	8/16/23 12:55			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:59

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-15 Dup

Laboratory ID Number: BD15742

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15742	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.104	0.103	0.105	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15742	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0921	0.0925	0.0854	0.0850 to 0.115	92.1	70.0 to 130	0.433	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15742	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15742	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.108	0.108	0.0939	0.0850 to 0.115	96.2	70.0 to 130	0.00	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15742	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.0993	0.0988	0.0939	0.0850 to 0.115	99.3	70.0 to 130	0.505	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15742	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	99.6	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15742	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0963	0.0966	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.311	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15742	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	261	290	4.62	4.25 to 5.75	-100	70.0 to 130	10.5	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15742	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0955	0.0945	0.0973	0.0850 to 0.115	95.5	70.0 to 130	1.05	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15742	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.168	0.166	0.0996	0.0850 to 0.115	96.7	70.0 to 130	1.20	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15742	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	19.7	21.0	0.198	0.170 to 0.230	-150	70.0 to 130	6.39	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:59

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-15 Dup

Laboratory ID Number: BD15742

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15742	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0965	0.0985	0.101	0.0850 to 0.115	96.5	70.0 to 130	2.05	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15742	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.259	0.262	0.190	0.170 to 0.230	104	70.0 to 130	1.15	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15742	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	281	310	4.89	4.25 to 5.75	-20.0	70.0 to 130	9.81	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15742	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	14.5	15.1	0.104	0.0850 to 0.115	200	70.0 to 130	4.05	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15742	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.188	0.189	0.195	0.170 to 0.230	94.0	70.0 to 130	0.531	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15742	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	15.0	14.7	10.1	8.50 to 11.5	98.0	70.0 to 130	2.02	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15742	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.0980	0.100	0.102	0.0850 to 0.115	98.0	70.0 to 130	2.02	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15742	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	10.7	10.7	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15742	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	28.9	28.9	4.88	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15742	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.0976	0.0989	0.102	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:59

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-15 Dup

Laboratory ID Number: BD15742

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF
Collected: 8/16/23 14:17
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15743

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 11:30	8/22/23 11:26		1.015	0.0475	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/18/23 11:30	8/22/23 15:59		101.5	329	mg/L	7.0035	40.6		
* Iron, Total	8/18/23 11:30	8/22/23 11:26		1.015	3.16	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 11:30	8/22/23 11:26		1.015	0.0177	mg/L	0.007105	0.01999956	J	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:46		10.15	390	mg/L	0.21315	4.06		
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:26		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:26		1	12.8	mg/L				
* Silicon, Total	8/18/23 11:30	8/22/23 11:26		1.015	5.98	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 11:30	8/22/23 11:26		1.015	28.0	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:17		1.015	0.0456	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:11		10.15	394	mg/L	0.70035	4.06		
* Iron, Dissolved	8/18/23 14:30	8/24/23 11:17		1.015	2.88	mg/L	0.008120	0.0406		
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:17		1.015	0.0187	mg/L	0.007105	0.01999956	J	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:11		10.15	349	mg/L	0.21315	4.06		
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:17		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:17		1	12.3	mg/L				
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:17		1.015	5.75	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 14:30	8/24/23 11:17		1.015	28.6	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 11:30	8/18/23 13:49		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Arsenic, Total	8/18/23 11:30	8/18/23 13:49		1.015	0.00243	mg/L	0.000112	0.000203		
* Aluminum, Total	8/18/23 11:30	8/18/23 13:49		1.015	0.0936	mg/L	0.009135	0.05075		
* Barium, Total	8/18/23 11:30	8/18/23 13:49		1.015	0.0122	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 11:30	8/18/23 13:49		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 11:30	8/18/23 13:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 11:30	8/18/23 13:49		1.015	0.000437	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/18/23 11:30	8/18/23 13:49		1.015	0.0102	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 11:30	8/18/23 13:49		1.015	0.0000979	mg/L	0.000068	0.000203	J	
* Manganese, Total	8/18/23 11:30	8/21/23 11:41		5.075	2.76	mg/L	0.000761	0.005075		

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF
Collected: 8/16/23 14:17
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15743

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:49		1.015	7.69	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	0.00222	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	0.0119	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	0.0102	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 13:17		5.075	2.76	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	7.87	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:36	8/18/23 10:36		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	336	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	2470	mg/L		100	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	336	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.47	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-16

Location Code: WMWGORLF

Collected: 8/16/23 14:17

Customer ID:

Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15743

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 19:55	8/17/23 19:55		1	1.56	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:39	8/18/23 09:39		1	2.81	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:24	8/17/23 13:24		1	0.129	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:24	8/23/23 12:24		50	1530	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 14:13	8/16/23 14:13			1733.66	uS/cm			FA
pH	8/16/23 14:13	8/16/23 14:13			6.47	SU			FA
Temperature	8/16/23 14:13	8/16/23 14:13			20.76	C			FA
Turbidity	8/16/23 14:13	8/16/23 14:13			8.28	NTU			FA
Sulfide	8/16/23 14:13	8/16/23 14:13			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 14:17

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BD15743

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 14:17

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BD15743

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BD15751	Lead, Dissolved	mg/L	0.000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 14:17

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-16

Laboratory ID Number: BD15743

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF
Collected: 8/16/23 15:05
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15744

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:30		1.015	0.0470	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:50		101.5	378	mg/L	7.0035	40.6	
* Iron, Total	8/18/23 11:30	8/22/23 14:50		101.5	15.0	mg/L	0.8120	4.06	
* Lithium, Total	8/18/23 11:30	8/22/23 11:30		1.015	0.0429	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:50		101.5	413	mg/L	2.1315	40.6	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:30		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:30		1	17.1	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:30		1.015	7.99	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 11:30		1.015	38.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:20		1.015	0.0468	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:14		101.5	399	mg/L	7.0035	40.6	
* Iron, Dissolved	8/18/23 14:30	8/24/23 13:14		101.5	13.0	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:20		1.015	0.0451	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:14		101.5	439	mg/L	2.1315	40.6	
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:20		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:20		1	16.4	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:20		1.015	7.68	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 11:20		1.015	37.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 13:52		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 13:52		1.015	0.0302	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/18/23 11:30	8/18/23 13:52		1.015	0.00151	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 13:52		1.015	0.0119	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 13:52		1.015	0.000242	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 13:52		1.015	0.295	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/21/23 11:45		92.365	17.3	mg/L	0.013855	0.092365	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF
Collected: 8/16/23 15:05
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15744

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 13:52		1.015	6.97	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 13:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	0.00117	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	0.0120	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	0.223	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 13:20		92.365	10.8	mg/L	0.013855	0.092365	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	6.72	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 11:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:38	8/18/23 10:38		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	173	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	3880	mg/L		125	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	173	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.55	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-17R

Location Code: WMWGORLF

Collected: 8/16/23 15:05

Customer ID:

Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15744

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 20:10	8/17/23 20:10		1	1.25	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:43	8/18/23 09:43		1	2.67	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:26	8/17/23 13:26		1	0.127	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:25	8/23/23 12:25		100	2570	mg/L	60.0	200	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/16/23 15:02	8/16/23 15:02			2224.25	uS/cm			FA
pH	8/16/23 15:02	8/16/23 15:02			6.03	SU			FA
Temperature	8/16/23 15:02	8/16/23 15:02			24	C			FA
Turbidity	8/16/23 15:02	8/16/23 15:02			6.05	NTU			FA
Sulfide	8/16/23 15:02	8/16/23 15:02			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 8/16/23 15:05
Customer ID:
Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BD15744

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 15:05

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BD15744

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Lead, Dissolved	mg/L	0.000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 15:05

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-17R

Laboratory ID Number: BD15744

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill Equipment Blank-1

Location Code: WMWGORLFEB
Collected: 8/16/23 15:40
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15745

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 11:30	8/22/23 11:33		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 11:30	8/22/23 11:33		1.015	0.0828	mg/L	0.070035	0.406	J	
* Iron, Total	8/18/23 11:30	8/22/23 11:33		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/18/23 11:30	8/22/23 11:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 11:30	8/22/23 11:33		1.015	0.0817	mg/L	0.021315	0.406	J	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:33		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:33		1	Not Detected	mg/L				
* Silicon, Total	8/18/23 11:30	8/22/23 11:33		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/18/23 11:30	8/22/23 11:33		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 11:30	8/18/23 13:56		1.015	0.00176	mg/L	0.000152	0.001015		
* Potassium, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/18/23 11:30	8/18/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ABB								
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:25		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/18/23 10:40	8/18/23 10:40		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Gorgas Landfill Equipment Blank-1

Location Code: WMWGORLFEB
Collected: 8/16/23 15:40
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15745

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 20:24	8/17/23 20:24		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/18/23 09:41	8/18/23 09:41		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:27	8/17/23 13:27		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:12	8/23/23 12:12		1	3.34	mg/L	0.6	2	

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

Comments:

Batch QC Summary

Customer Account: WMWGORLFEB

Sample Date: 8/16/23 15:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BD15745

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFEB

Sample Date: 8/16/23 15:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BD15745

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORLFEB

Sample Date: 8/16/23 15:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill Equipment Blank-1

Laboratory ID Number: BD15745

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments:

Certificate Of Analysis

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 8/16/23 10:40
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15746

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:36		1.015	0.0320	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:53		101.5	361	mg/L	7.0035	40.6	
* Iron, Total	8/18/23 11:30	8/22/23 11:36		1.015	1.04	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 11:30	8/22/23 11:36		1.015	0.0864	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:53		101.5	400	mg/L	2.1315	40.6	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:36		1	16.0	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:36		1.015	7.48	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:53		101.5	54.3	mg/L	4.060	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:24		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:18		101.5	413	mg/L	7.0035	40.6	
* Iron, Dissolved	8/18/23 14:30	8/24/23 11:24		1.015	0.450	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:24		1.015	0.0824	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:18		101.5	477	mg/L	2.1315	40.6	
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:24		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:24		1	15.3	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:24		1.015	7.14	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 13:18		101.5	65.7	mg/L	4.060	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 14:00		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 14:00		1.015	0.0469	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/18/23 11:30	8/18/23 14:00		1.015	0.000224	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 14:00		1.015	0.0111	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 14:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 14:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 14:00		1.015	0.000324	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 14:00		1.015	0.000931	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 14:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/18/23 14:00		1.015	0.400	mg/L	0.000152	0.001015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 8/16/23 10:40
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15746

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 14:00		1.015	6.25	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 14:00		1.015	0.00247	mg/L	0.000508	0.001015	
* Thallium, Total	8/18/23 11:30	8/18/23 14:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	0.000119	mg/L	0.000112	0.000203	J
* Barium, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	0.0101	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	0.00109	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	0.500	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	6.19	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	0.00267	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/18/23 14:30	8/21/23 12:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:42	8/18/23 10:42		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	289	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/17/23 11:10	8/18/23 13:20		1	3640	mg/L		208.3	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	289	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.51	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-5

Location Code: WMWGORLF
Collected: 8/16/23 10:40
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15746

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 20:41	8/17/23 20:41		1	1.55	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:44	8/18/23 09:44		1	7.19	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:28	8/17/23 13:28		1	0.266	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:27	8/23/23 12:27		100	2310	mg/L	60.0	200	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/16/23 10:37	8/16/23 10:37			3518.09	uS/cm			FA
pH	8/16/23 10:37	8/16/23 10:37			6.50	SU			FA
Temperature	8/16/23 10:37	8/16/23 10:37			24.07	C			FA
Turbidity	8/16/23 10:37	8/16/23 10:37			6.87	NTU			FA
Sulfide	8/16/23 10:37	8/16/23 10:37			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 10:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BD15746

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 10:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BD15746

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15751	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 10:40

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-5

Laboratory ID Number: BD15746

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15746	Solids, Dissolved	mg/L	1.00	25.0			3680	49.0	40.0 to 60.0			1.09	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 8/16/23 12:20
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15747

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:39		1.015	0.0686	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 14:56		101.5	383	mg/L	7.0035	40.6	
* Iron, Total	8/18/23 11:30	8/22/23 14:56		101.5	32.3	mg/L	0.8120	4.06	
* Lithium, Total	8/18/23 11:30	8/22/23 11:39		1.015	0.198	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:56		101.5	261	mg/L	2.1315	40.6	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:39		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:39		1	27.2	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:39		1.015	12.7	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:56		101.5	61.4	mg/L	4.060	40.6	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:27		1.015	0.0650	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:21		101.5	362	mg/L	7.0035	40.6	
* Iron, Dissolved	8/18/23 14:30	8/24/23 13:21		101.5	30.6	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:27		1.015	0.192	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:21		101.5	257	mg/L	2.1315	40.6	
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:27		1	26.8	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:27		1.015	12.5	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 13:21		101.5	62.8	mg/L	4.060	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 14:03		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 14:03		1.015	0.0217	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/18/23 11:30	8/18/23 14:03		1.015	0.00498	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 14:03		1.015	0.0129	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 14:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 14:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 14:03		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/18/23 11:30	8/18/23 14:03		1.015	0.0520	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 14:03		1.015	0.000191	mg/L	0.000068	0.000203	J
* Manganese, Total	8/18/23 11:30	8/21/23 11:49		10.15	7.43	mg/L	0.001522	0.01015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 8/16/23 12:20
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15747

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 14:03		1.015	6.04	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 14:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 14:03		1.015	0.0000939	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	0.00409	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	0.0134	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	0.0493	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 13:24		10.15	7.96	mg/L	0.001522	0.01015	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	6.08	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:43	8/18/23 10:43		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	172	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	3140	mg/L		178.6	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	172	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.49	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-6

Location Code: WMWGORLF
Collected: 8/16/23 12:20
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15747

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 20:58	8/17/23 20:58		1	1.10	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:45	8/18/23 09:45		1	3.36	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:29	8/17/23 13:29		1	0.0931	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:28	8/23/23 12:28		100	2060	mg/L	60.0	200	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/16/23 12:16	8/16/23 12:16			3036.34	uS/cm			FA
pH	8/16/23 12:16	8/16/23 12:16			6.01	SU			FA
Temperature	8/16/23 12:16	8/16/23 12:16			22.19	C			FA
Turbidity	8/16/23 12:16	8/16/23 12:16			5.76	NTU			FA
Sulfide	8/16/23 12:16	8/16/23 12:16			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF
Sample Date: 8/16/23 12:20
Customer ID:
Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BD15747

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:20

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BD15747

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 12:20

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-6

Laboratory ID Number: BD15747

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 8/16/23 13:30
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15748

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:42		1.015	0.104	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 11:30	8/22/23 16:02		101.5	357	mg/L	7.0035	40.6	
* Iron, Total	8/18/23 11:30	8/22/23 14:59		10.15	8.04	mg/L	0.08120	0.406	
* Lithium, Total	8/18/23 11:30	8/22/23 11:42		1.015	0.205	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 14:59		10.15	207	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:42		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:42		1	20.6	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:42		1.015	9.62	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 14:59		10.15	162	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:30		1.015	0.103	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:24		10.15	366	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/24/23 13:24		10.15	7.28	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:30		1.015	0.193	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:24		10.15	199	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:30		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:30		1	20.5	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:30		1.015	9.57	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 13:24		10.15	159	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 14:07		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 14:07		1.015	0.0165	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/18/23 11:30	8/18/23 14:07		1.015	0.000784	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 14:07		1.015	0.0142	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 14:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 14:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 14:07		1.015	0.000258	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 14:07		1.015	0.000218	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 14:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/18/23 14:07		1.015	1.01	mg/L	0.000152	0.001015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 8/16/23 13:30
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15748

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 14:07		1.015	5.64	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 14:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 14:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	0.000722	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	0.0154	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	0.000156	mg/L	0.000068	0.000203	J
* Lead, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	1.09	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	5.71	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 12:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:45	8/18/23 10:45		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	272	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	2200	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	272	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.45	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20

Location Code: WMWGORLF
Collected: 8/16/23 13:30
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15748

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 21:15	8/17/23 21:15		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:52	8/18/23 09:52		5	51.5	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:30	8/17/23 13:30		1	0.0938	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:29	8/23/23 12:29		50	1350	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/16/23 13:28	8/16/23 13:28			2532.77	uS/cm			FA
pH	8/16/23 13:28	8/16/23 13:28			6.61	SU			FA
Temperature	8/16/23 13:28	8/16/23 13:28			21.26	C			FA
Turbidity	8/16/23 13:28	8/16/23 13:28			1.86	NTU			FA
Sulfide	8/16/23 13:28	8/16/23 13:28			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 13:30

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BD15748

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 13:30

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BD15748

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 13:30

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-20

Laboratory ID Number: BD15748

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20 Dup

Location Code: WMWGORLF
Collected: 8/16/23 13:30
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15749

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:45		1.015	0.106	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 11:30	8/22/23 16:05		101.5	338	mg/L	7.0035	40.6	
* Iron, Total	8/18/23 11:30	8/22/23 15:02		10.15	8.24	mg/L	0.08120	0.406	
* Lithium, Total	8/18/23 11:30	8/22/23 11:45		1.015	0.197	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 15:02		10.15	211	mg/L	0.21315	4.06	
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:45		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:45		1	21.3	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:45		1.015	9.93	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 15:02		10.15	164	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:33		1.015	0.103	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:27		10.15	358	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/24/23 13:27		10.15	7.24	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:33		1.015	0.192	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:27		10.15	193	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:33		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:33		1	20.5	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:33		1.015	9.60	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 13:27		10.15	155	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 14:10		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 11:30	8/18/23 14:10		1.015	0.000798	mg/L	0.000112	0.000203	
* Aluminum, Total	8/18/23 11:30	8/18/23 14:10		1.015	0.0147	mg/L	0.009135	0.05075	J
* Barium, Total	8/18/23 11:30	8/18/23 14:10		1.015	0.0139	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 14:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 14:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 14:10		1.015	0.000233	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 14:10		1.015	0.000201	mg/L	0.000068	0.000203	J
* Lead, Total	8/18/23 11:30	8/18/23 14:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/18/23 14:10		1.015	1.01	mg/L	0.000152	0.001015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20 Dup

Location Code: WMWGORLF
Collected: 8/16/23 13:30
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15749

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 14:10		1.015	5.59	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 14:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 14:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	0.000730	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	0.0155	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	0.000151	mg/L	0.000068	0.000203	J
* Lead, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	1.09	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	5.78	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:47	8/18/23 10:47		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	267	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	2180	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	267	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.51	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-20 Dup

Location Code: WMWGORLF
Collected: 8/16/23 13:30
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15749

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 21:30	8/17/23 21:30		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:33	8/18/23 10:33		5	52.7	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:32	8/17/23 13:32		1	0.0876	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:30	8/23/23 12:30		50	1360	mg/L	30.0	100	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/16/23 13:28	8/16/23 13:28			2532.77	uS/cm			FA
pH	8/16/23 13:28	8/16/23 13:28			6.61	SU			FA
Temperature	8/16/23 13:28	8/16/23 13:28			21.26	C			FA
Turbidity	8/16/23 13:28	8/16/23 13:28			1.86	NTU			FA
Sulfide	8/16/23 13:28	8/16/23 13:28			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 13:30

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-20 Dup

Laboratory ID Number: BD15749

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 13:30

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-20 Dup

Laboratory ID Number: BD15749

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 13:30

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-20 Dup

Laboratory ID Number: BD15749

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 8/16/23 14:35
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15750

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 11:49		1.015	0.0378	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 16:08		101.5	356	mg/L	7.0035	40.6	RA
* Iron, Total	8/18/23 11:30	8/22/23 11:49		1.015	2.85	mg/L	0.008120	0.0406	RA
* Lithium, Total	8/18/23 11:30	8/22/23 11:49		1.015	0.0564	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 16:08		101.5	371	mg/L	2.1315	40.6	RA
* Molybdenum, Total	8/18/23 11:30	8/22/23 11:49		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 11:49		1	16.3	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 11:49		1.015	7.62	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 11:49		1.015	34.9	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:36		1.015	0.0360	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:30		10.15	377	mg/L	0.70035	4.06	
* Iron, Dissolved	8/18/23 14:30	8/24/23 11:36		1.015	2.11	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:36		1.015	0.0546	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:30		10.15	392	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:36		1	15.8	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:36		1.015	7.38	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 11:36		1.015	33.2	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 14:14		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 14:14		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	8/18/23 11:30	8/18/23 14:14		1.015	0.000240	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 11:30	8/18/23 14:14		1.015	0.00960	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 14:14		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 14:14		1.015	0.0000752	mg/L	0.000068	0.000203	J
* Chromium, Total	8/18/23 11:30	8/18/23 14:14		1.015	0.000218	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 14:14		1.015	0.0432	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 11:30	8/18/23 14:14		1.015	0.0000716	mg/L	0.000068	0.000203	J
* Manganese, Total	8/18/23 11:30	8/21/23 12:03		5.075	3.00	mg/L	0.000761	0.005075	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 8/16/23 14:35
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15750

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 14:14		1.015	5.73	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 14:14		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 11:30	8/18/23 14:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	0.00902	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	0.0413	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 13:27		5.075	3.00	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	5.90	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 14:30	8/21/23 12:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/22/23 17:17	8/22/23 22:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:49	8/18/23 10:49		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	197	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	3160	mg/L		178.6	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	197	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.54	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-19

Location Code: WMWGORLF
Collected: 8/16/23 14:35
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15750

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 21:46	8/17/23 21:46		1	1.02	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 09:49	8/18/23 09:49		1	2.11	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:33	8/17/23 13:33		1	0.306	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:18	8/23/23 12:18		160	2290	mg/L	96.0	320	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/16/23 14:29	8/16/23 14:29			3000.02	uS/cm			FA
pH	8/16/23 14:29	8/16/23 14:29			6.33	SU			FA
Temperature	8/16/23 14:29	8/16/23 14:29			20.85	C			FA
Turbidity	8/16/23 14:29	8/16/23 14:29			4.63	NTU			FA
Sulfide	8/16/23 14:29	8/16/23 14:29			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 14:35

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BD15750

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15750	Aluminum, Total	mg/L	0.00553	0.0198	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15750	Antimony, Total	mg/L	0.000304	0.00100	0.100	0.0957	0.0951	0.0915	0.0850 to 0.115	95.7	70.0 to 130	0.629	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15750	Arsenic, Total	mg/L	0.0000161	0.000200	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15750	Barium, Total	mg/L	-0.0000098	0.00100	0.100	0.104	0.104	0.0933	0.0850 to 0.115	94.4	70.0 to 130	0.00	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15750	Beryllium, Total	mg/L	-0.0000104	0.000880	0.100	0.107	0.108	0.101	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15750	Boron, Total	mg/L	-0.000022	0.0650	1.00	1.07	1.07	0.993	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15750	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0967	0.102	0.101	0.0850 to 0.115	96.6	70.0 to 130	5.33	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15750	Calcium, Total	mg/L	-0.0174	0.152	5.00	357	387	4.91	4.25 to 5.75	20.0	70.0 to 130	8.06	20.0
BD15750	Chloride	mg/L	-0.0734	1.00	10.0	12.2	12.1	9.93	9.00 to 11.0	101	80.0 to 120	0.823	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15750	Chromium, Total	mg/L	0.0000700	0.000440	0.100	0.0968	0.0959	0.0985	0.0850 to 0.115	96.6	70.0 to 130	0.934	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15750	Cobalt, Total	mg/L	-0.0000044	0.000147	0.100	0.143	0.142	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.702	20.0
BD15750	Fluoride	mg/L	0.017	0.125	2.50	3.00	3.01	2.59	2.25 to 2.75	108	80.0 to 120	0.333	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15750	Iron, Total	mg/L	0.00125	0.0176	0.2	3.02	2.98	0.196	0.170 to 0.230	85.0	70.0 to 130	1.33	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 14:35

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BD15750

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BD15751	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15750	Lead, Total	mg/L	0.0000050	0.000147	0.100	0.0944	0.0961	0.0970	0.0850 to 0.115	94.3	70.0 to 130	1.78	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15750	Lithium, Total	mg/L	-0.000259	0.0154	0.200	0.281	0.281	0.193	0.170 to 0.230	112	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15750	Magnesium, Total	mg/L	-0.0418	0.0462	5.00	372	394	4.94	4.25 to 5.75	20.0	70.0 to 130	5.74	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15750	Manganese, Total	mg/L	0.0000037	0.00033	0.100	3.09	3.08	0.101	0.0850 to 0.115	90.0	70.0 to 130	0.324	20.0
BD15750	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00417	0.00414	0.00379	0.00340 to 0.00460	104	70.0 to 130	0.722	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15750	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.197	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15750	Potassium, Total	mg/L	-0.00486	0.367	10.0	15.3	15.5	9.95	8.50 to 11.5	95.7	70.0 to 130	1.30	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15750	Selenium, Total	mg/L	0.0000035	0.00100	0.100	0.103	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15750	Silicon, Total	mg/L	-0.00039	0.0440	1.00	8.60	8.54	0.994	0.850 to 1.15	98.0	70.0 to 130	0.700	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15750	Sodium, Total	mg/L	0.000994	0.0880	5.00	40.8	40.7	4.88	4.25 to 5.75	118	70.0 to 130	0.245	20.0
BD15750	Sulfate	mg/L	0.499	2.0	3200	5220	5490	20.1	18.0 to 22.0	91.6	80.0 to 120	5.04	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15750	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0967	0.0981	0.0994	0.0850 to 0.115	96.7	70.0 to 130	1.44	20.0
BD15750	Total Organic Carbon	mg/L	0.175	1.00	10.0	9.85	10.7	23.9		88.3	80.0 to 120	8.27	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 14:35

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-19

Laboratory ID Number: BD15750

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15750	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.200	2.00	2.02	-0.080	2.00	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 8/16/23 15:25
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15751

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 11:30	8/22/23 12:11		1.015	0.0351	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 11:30	8/22/23 15:15		10.15	377	mg/L	0.70035	4.06	RA
* Iron, Total	8/18/23 11:30	8/22/23 12:11		1.015	0.0306	mg/L	0.008120	0.0406	J
* Lithium, Total	8/18/23 11:30	8/22/23 12:11		1.015	0.0513	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/18/23 11:30	8/22/23 15:15		10.15	376	mg/L	0.21315	4.06	RA
* Molybdenum, Total	8/18/23 11:30	8/22/23 12:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 11:30	8/22/23 12:11		1	14.2	mg/L			
* Silicon, Total	8/18/23 11:30	8/22/23 12:11		1.015	6.62	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 11:30	8/22/23 12:11		1.015	30.3	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/18/23 14:30	8/24/23 11:39		1.015	0.0336	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 14:30	8/24/23 13:34		10.15	318	mg/L	0.70035	4.06	RA
* Iron, Dissolved	8/18/23 14:30	8/24/23 11:39		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/18/23 14:30	8/24/23 11:39		1.015	0.0491	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/18/23 14:30	8/24/23 13:34		10.15	335	mg/L	0.21315	4.06	RA
* Molybdenum, Dissolved	8/18/23 14:30	8/24/23 11:39		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 14:30	8/24/23 11:39		1	13.9	mg/L			
* Silicon, Dissolved	8/18/23 14:30	8/24/23 11:39		1.015	6.48	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 14:30	8/24/23 11:39		1.015	28.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 11:30	8/18/23 14:43		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 11:30	8/18/23 14:43		1.015	0.0229	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/18/23 11:30	8/18/23 14:43		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	8/18/23 11:30	8/18/23 14:43		1.015	0.00845	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 11:30	8/18/23 14:43		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 11:30	8/18/23 14:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 11:30	8/18/23 14:43		1.015	0.000276	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 11:30	8/18/23 14:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/18/23 11:30	8/18/23 14:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 11:30	8/18/23 14:43		1.015	0.000622	mg/L	0.000152	0.001015	J

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 8/16/23 15:25
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15751

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 11:30	8/18/23 14:43		1.015	6.35	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 11:30	8/18/23 14:43		1.015	0.00297	mg/L	0.000508	0.001015	
* Thallium, Total	8/18/23 11:30	8/18/23 14:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	0.00877	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	0.000470	mg/L	0.000152	0.001015	J
* Potassium, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	6.43	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	0.00306	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/18/23 14:30	8/21/23 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 22:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 10:54	8/18/23 10:54		1	0.326	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/28/23 09:07	8/28/23 13:56		1	185	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	2530	mg/L		75.8	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	185	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/28/23 09:07	8/28/23 13:56		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/28/23 09:07	8/28/23 13:56		1	4.47	SU		2	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Gorgas Landfill - MW-18

Location Code: WMWGORLF
Collected: 8/16/23 15:25
Customer ID:
Submittal Date: 8/17/23 08:51

Laboratory ID Number: BD15751

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/17/23 23:04	8/17/23 23:04		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:05	8/18/23 10:05		1	1.48	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 13:45	8/17/23 13:45		1	0.260	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:40	8/23/23 12:40		160	1530	mg/L	96.0	320	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/16/23 15:25	8/16/23 15:25			1368.85	uS/cm			FA
pH	8/16/23 15:25	8/16/23 15:25			6.60	SU			FA
Temperature	8/16/23 15:25	8/16/23 15:25			22.63	C			FA
Turbidity	8/16/23 15:25	8/16/23 15:25			3.06	NTU			FA
Sulfide	8/16/23 15:25	8/16/23 15:25			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 15:25

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BD15751

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD15751	Aluminum, Dissolved	mg/L	0.000155	0.0198	0.100	0.102	0.0989	0.105	0.0850 to 0.115	102	70.0 to 130	3.09	20.0
BD15751	Aluminum, Total	mg/L	0.00219	0.0198	0.100	0.120	0.125	0.101	0.0850 to 0.115	97.1	70.0 to 130	4.08	20.0
BD15751	Antimony, Dissolved	mg/L	0.000319	0.00100	0.100	0.0881	0.0929	0.0854	0.0850 to 0.115	88.1	70.0 to 130	5.30	20.0
BD15751	Antimony, Total	mg/L	0.000208	0.00100	0.100	0.0923	0.0937	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.51	20.0
BD15751	Arsenic, Dissolved	mg/L	0.0000034	0.000200	0.100	0.0993	0.0981	0.101	0.0850 to 0.115	99.3	70.0 to 130	1.22	20.0
BD15751	Arsenic, Total	mg/L	0.0000068	0.000200	0.100	0.104	0.105	0.106	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15751	Barium, Dissolved	mg/L	0.0000346	0.00100	0.100	0.104	0.110	0.0939	0.0850 to 0.115	95.2	70.0 to 130	5.61	20.0
BD15751	Barium, Total	mg/L	-0.0000194	0.00100	0.100	0.102	0.103	0.0944	0.0850 to 0.115	93.6	70.0 to 130	0.976	20.0
BD15751	Beryllium, Dissolved	mg/L	0.0000164	0.000880	0.100	0.104	0.100	0.0939	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BD15751	Beryllium, Total	mg/L	0.0000374	0.000880	0.100	0.110	0.109	0.115	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BD15751	Boron, Dissolved	mg/L	0.000396	0.0650	1.00	1.04	1.04	0.987	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15751	Boron, Total	mg/L	0.000633	0.0650	1.00	1.05	1.06	0.987	0.850 to 1.15	101	70.0 to 130	0.948	20.0
BD15751	Cadmium, Dissolved	mg/L	0.0000067	0.000147	0.100	0.0951	0.0975	0.0988	0.0850 to 0.115	95.1	70.0 to 130	2.49	20.0
BD15751	Cadmium, Total	mg/L	0.0000040	0.000147	0.100	0.0977	0.0972	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.513	20.0
BD15751	Calcium, Dissolved	mg/L	-0.0283	0.152	5.00	327	328	4.62	4.25 to 5.75	180	70.0 to 130	0.305	20.0
BD15751	Calcium, Total	mg/L	-0.00184	0.152	5.00	365	372	4.64	4.25 to 5.75	-240	70.0 to 130	1.90	20.0
BD15751	Chloride	mg/L	-0.0218	1.00	10.0	11.5	11.5	9.94	9.00 to 11.0	100	80.0 to 120	0.00	20.0
BD15751	Chromium, Dissolved	mg/L	-0.0000122	0.000440	0.100	0.0945	0.0931	0.0973	0.0850 to 0.115	94.5	70.0 to 130	1.49	20.0
BD15751	Chromium, Total	mg/L	-0.0000675	0.000440	0.100	0.0948	0.0968	0.0996	0.0850 to 0.115	94.5	70.0 to 130	2.09	20.0
BD15751	Cobalt, Dissolved	mg/L	-0.0000488	0.000147	0.100	0.0962	0.0954	0.0996	0.0850 to 0.115	96.2	70.0 to 130	0.835	20.0
BD15751	Cobalt, Total	mg/L	-0.0000037	0.000147	0.100	0.0987	0.0980	0.103	0.0850 to 0.115	98.7	70.0 to 130	0.712	20.0
BD15751	Fluoride	mg/L	0.0168	0.125	2.50	2.91	2.94	2.60	2.25 to 2.75	106	80.0 to 120	1.03	20.0
BD15751	Iron, Dissolved	mg/L	-0.00135	0.0176	0.2	0.190	0.191	0.198	0.170 to 0.230	95.0	70.0 to 130	0.525	20.0
BD15751	Iron, Total	mg/L	-0.000609	0.0176	0.2	0.221	0.221	0.198	0.170 to 0.230	95.2	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 15:25

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BD15751

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15751	Lead, Dissolved	mg/L	0.0000023	0.000147	0.100	0.0991	0.0984	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.709	20.0
BD15751	Lead, Total	mg/L	0.0000086	0.000147	0.100	0.0958	0.0962	0.0968	0.0850 to 0.115	95.8	70.0 to 130	0.417	20.0
BD15751	Lithium, Dissolved	mg/L	0.000173	0.0154	0.200	0.256	0.260	0.190	0.170 to 0.230	103	70.0 to 130	1.55	20.0
BD15751	Lithium, Total	mg/L	-0.00108	0.0154	0.200	0.268	0.268	0.216	0.170 to 0.230	108	70.0 to 130	0.00	20.0
BD15751	Magnesium, Dissolved	mg/L	-0.00201	0.0462	5.00	338	342	4.89	4.25 to 5.75	60.0	70.0 to 130	1.18	20.0
BD15751	Magnesium, Total	mg/L	0.00682	0.0462	5.00	372	373	5.08	4.25 to 5.75	-80.0	70.0 to 130	0.268	20.0
BD15751	Manganese, Dissolved	mg/L	0.0000019	0.00033	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15751	Manganese, Total	mg/L	0.0000638	0.00033	0.100	0.0968	0.0991	0.102	0.0850 to 0.115	96.2	70.0 to 130	2.35	20.0
BD15751	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00393	0.00405	0.00378	0.00340 to 0.00460	98.2	70.0 to 130	3.01	20.0
BD15751	Molybdenum, Dissolved	mg/L	0.000424	0.0100	0.2	0.193	0.194	0.195	0.170 to 0.230	96.5	70.0 to 130	0.517	20.0
BD15751	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.194	0.198	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BD15751	Potassium, Dissolved	mg/L	-0.00187	0.367	10.0	16.4	16.1	10.1	8.50 to 11.5	99.7	70.0 to 130	1.85	20.0
BD15751	Potassium, Total	mg/L	-0.0238	0.367	10.0	15.8	16.0	10.0	8.50 to 11.5	94.5	70.0 to 130	1.26	20.0
BD15751	Selenium, Dissolved	mg/L	0.0000413	0.00100	0.100	0.103	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD15751	Selenium, Total	mg/L	-0.0000573	0.00100	0.100	0.106	0.106	0.106	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BD15751	Silicon, Dissolved	mg/L	0.000291	0.0440	1.00	7.47	7.48	1.00	0.850 to 1.15	99.0	70.0 to 130	0.134	20.0
BD15751	Silicon, Total	mg/L	0.00119	0.0440	1.00	7.61	7.62	1.01	0.850 to 1.15	99.0	70.0 to 130	0.131	20.0
BD15751	Sodium, Dissolved	mg/L	0.00414	0.0880	5.00	33.7	34.0	4.88	4.25 to 5.75	102	70.0 to 130	0.886	20.0
BD15751	Sodium, Total	mg/L	0.00401	0.0880	5.00	35.0	34.9	5.43	4.25 to 5.75	94.0	70.0 to 130	0.286	20.0
BD15751	Sulfate	mg/L	0.337	2.0	3200	4750	4820	20.1	18.0 to 22.0	101	80.0 to 120	1.46	20.0
BD15751	Thallium, Dissolved	mg/L	-0.0000298	0.000147	0.100	0.101	0.0972	0.102	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BD15751	Thallium, Total	mg/L	0.0000087	0.000147	0.100	0.0973	0.0982	0.0996	0.0850 to 0.115	97.3	70.0 to 130	0.921	20.0
BD15751	Total Organic Carbon	mg/L	0.153	1.00	10.0	10.4	10.8	25.4		104	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWGORLF

Sample Date: 8/16/23 15:25

Customer ID:

Delivery Date: 8/17/23 08:51

Description: Gorgas Landfill - MW-18

Laboratory ID Number: BD15751

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15751	Alkalinity	mg CaCO3/L					184	51.3	45.0 to 55.0			0.542	10.0
BD15751	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.28	0.303	2.00	1.80 to 2.20	97.7	90.0 to 110	7.31	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Definitions

Project Number: WMWGORLF_1420

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
A	Bicarbonate alkalinity, carbonate alkalinity, hydroxide alkalinity, free carbon dioxide, and/or total carbon dioxide calculations are estimates due to pH>10SU and/or TDS>500mg/L.
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
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.



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
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Gorgas Landfill

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments Updated bottle count from 6 to 5 on EB-1. BC 08/17/2023

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-11	08/15/2023	11:14	6	Groundwater		BD15731	<input checked="" type="checkbox"/>
FB-1	08/15/2023	11:55	5	Field Blank		BD15732	<input checked="" type="checkbox"/>
MW-10	08/15/2023	13:23	6	Groundwater		BD15733	<input checked="" type="checkbox"/>
MW-8	08/15/2023	15:02	6	Groundwater		BD15734	<input checked="" type="checkbox"/>
MW-7	08/15/2023	16:06	6	Groundwater		BD15735	<input checked="" type="checkbox"/>
MW-12V	08/16/2023	07:57	6	Groundwater		BD15736	<input checked="" type="checkbox"/>
MW-12	08/16/2023	09:03	6	Groundwater		BD15737	<input checked="" type="checkbox"/>
MW-13	08/16/2023	10:22	6	Groundwater		BD15738	<input checked="" type="checkbox"/>
MW-14	08/16/2023	12:12	6	Groundwater		BD15739	<input checked="" type="checkbox"/>
FB-2	08/16/2023	12:40	5	Field Blank		BD15740	<input checked="" type="checkbox"/>
MW-15	08/16/2023	12:59	6	Groundwater		BD15741	<input checked="" type="checkbox"/>
MW-15 dup	08/16/2023	12:59	6	Sample Duplicate		BD15742	<input checked="" type="checkbox"/>
MW-16	08/16/2023	14:17	6	Groundwater		BD15743	<input checked="" type="checkbox"/>
MW-17R	08/16/2023	15:05	6	Groundwater		BD15744	<input checked="" type="checkbox"/>
EB-1	08/16/2023	15:40	5	Equipment Blank		BD15745	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
<i>Mel Dyer</i>	<i>Burke Cotton</i>	08/17/2023 07:58

SmarTroll ID	7586-41443-5-2	Cooler Temp	2.0 °C
Turbidity ID	9901-57263-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1420	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



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
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Gorgas Landfill

Bottles	1	2	3	4	5	6	7	8
	Metals	500 mL	Hg	250 mL	TDS/Alkalinity	500 mL	N/A	N/A
	Dissolved Metals	500 mL	Nitrite, Nitrate; TOC	250 mL	Anions	500 mL	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5	08/16/2023	10:40	6	Groundwater		BD15746	<input checked="" type="checkbox"/>
MW-6	08/16/2023	12:20	6	Groundwater		BD15747	<input checked="" type="checkbox"/>
MW-20	08/16/2023	13:30	6	Groundwater		BD15748	<input checked="" type="checkbox"/>
MW-20 Dup	08/16/2023	13:30	6	Sample Duplicate		BD15749	<input checked="" type="checkbox"/>
MW-19	08/16/2023	14:35	6	Groundwater		BD15750	<input checked="" type="checkbox"/>
MW-18	08/16/2023	15:25	6	Groundwater		BD15751	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
 Digitally signed by Anthony Goggins Date: 2023.08.17 07:58:47 -05'00'	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.17 08:49:06 -05'00'	08/17/2023 08:49
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

SmarTroll ID	7586-41446-5-5	Cooler Temp	1.1 °C
Turbidity ID	9830-57039-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1420	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



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
	Collector: Anthony Goggins		Requested By: Greg Dyer
		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

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5	08/16/2023	10:40	1	Groundwater		BD15767	<input checked="" type="checkbox"/>
MW-6	08/16/2023	12:20	1	Groundwater		BD15768	<input checked="" type="checkbox"/>
MW-20	08/16/2023	13:30	1	Groundwater		BD15769	<input checked="" type="checkbox"/>
MW-20 Dup	08/16/2023	13:30	1	Sample Duplicate		BD15770	<input checked="" type="checkbox"/>
MW-19	08/16/2023	14:35	1	Groundwater		BD15771	<input checked="" type="checkbox"/>
MW-18	08/16/2023	15:25	1	Groundwater		BD15772	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
 <small>Digitally signed by Anthony Goggins Date: 2023.08.17 07:58:47 -05'00'</small>	Brooke Caton <small>Digitally signed by Brooke Caton Date: 2023.08.17 08:49:40 -05'00'</small>	08/17/2023 08:49

SmarTroll ID: 7586-41446-5-5	Cooler Temp: N/A
Turbidity ID: 9830-57039-1-1	Thermometer ID: N/A
Sample Event: 1420	pH Strip ID: 10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



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
	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-7 and MW-14

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-11	08/15/2023	11:14	1	Groundwater		BD15752	<input checked="" type="checkbox"/>
FB-1	08/15/2023	11:55	1	Field Blank		BD15753	<input checked="" type="checkbox"/>
MW-10	08/15/2023	13:23	1	Groundwater		BD15754	<input checked="" type="checkbox"/>
MW-8	08/15/2023	15:02	1	Groundwater		BD15755	<input checked="" type="checkbox"/>
MW-7	08/15/2023	16:06	3	Groundwater		BD15756	<input checked="" type="checkbox"/>
MW-12V	08/16/2023	07:57	1	Groundwater		BD15757	<input checked="" type="checkbox"/>
MW-12	08/16/2023	09:03	1	Groundwater		BD15758	<input checked="" type="checkbox"/>
MW-13	08/16/2023	10:22	1	Groundwater		BD15759	<input checked="" type="checkbox"/>
MW-14	08/16/2023	12:12	3	Groundwater		BD15760	<input checked="" type="checkbox"/>
FB-2	08/16/2023	12:40	1	Field Blank		BD15761	<input checked="" type="checkbox"/>
MW-15	08/16/2023	12:59	1	Groundwater		BD15762	<input checked="" type="checkbox"/>
MW-15 dup	08/16/2023	12:59	1	Sample Duplicate		BD15763	<input checked="" type="checkbox"/>
MW-16	08/16/2023	14:17	1	Groundwater		BD15764	<input checked="" type="checkbox"/>
MW-17R	08/16/2023	15:05	1	Groundwater		BD15765	<input checked="" type="checkbox"/>
EB-1	08/16/2023	15:40	1	Equipment Blank		BD15766	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Burke Cotton</i>	08/17/2023 07:59

SmarTroll ID	7586-41443-5-2	Cooler Temp	N/A
Turbidity ID	9901-57263-1-1	Thermometer ID	N/A
Sample Event	1420	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.

Total Metals and Alkalinity are not performed on Dissolved Sets

Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



September 22, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWGORLF_1420
Pace Project No.: 30616376

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,

Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWGORLF_1420
Pace Project No.: 30616376

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWGORLF_1420
Pace Project No.: 30616376

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30616376001	BD15752 MW-11	Water	08/15/23 11:14	08/23/23 09:50
30616376002	BD15753 FB-1	Water	08/15/23 11:55	08/23/23 09:50
30616376003	BD15754 MW-10	Water	08/15/23 13:23	08/23/23 09:50
30616376004	BD15755 MW-8	Water	08/15/23 15:02	08/23/23 09:50
30616376005	BD15756 MW-7	Water	08/15/23 16:06	08/23/23 09:50
30616376006	BD15756 MW-7 MS	Water	08/15/23 16:06	08/23/23 09:50
30616376007	BD15756 MW-7 MSD	Water	08/15/23 16:06	08/23/23 09:50
30616376008	BD15757 MW-12V	Water	08/16/23 07:57	08/23/23 09:50
30616376009	BD15758 MW-12	Water	08/16/23 09:03	08/23/23 09:50
30616376010	BD15759 MW-13	Water	08/16/23 10:22	08/23/23 09:50
30616376011	BD15760 MW-14	Water	08/16/23 12:12	08/23/23 09:50
30616376012	BD15760 MW-14 MS	Water	08/16/23 12:12	08/23/23 09:50
30616376013	BD15760 MW-14 MSD	Water	08/16/23 12:12	08/23/23 09:50
30616376014	BD15761 FB-2	Water	08/16/23 12:40	08/23/23 09:50
30616376015	BD15762 MW-15	Water	08/16/23 12:59	08/23/23 09:50
30616376016	BD15763 MW-15 DUP	Water	08/16/23 12:59	08/23/23 09:50
30616376017	BD15764 MW-16	Water	08/16/23 14:17	08/23/23 09:50
30616376018	BD15765 MW-17R	Water	08/16/23 15:05	08/23/23 09:50
30616376019	BD15766 EB-1	Water	08/16/23 15:40	08/23/23 09:50
30616376020	BD15767 MW-5	Water	08/16/23 10:40	08/23/23 09:50
30616376021	BD15768 MW-6	Water	08/16/23 12:20	08/23/23 09:50
30616376022	BD15769 MW-20	Water	08/16/23 13:30	08/23/23 09:50
30616376023	BD15770 MW-20 Dup	Water	08/16/23 13:30	08/23/23 09:50
30616376024	BD15771 MW-19	Water	08/16/23 14:35	08/23/23 09:50
30616376025	BD15772 MW-18	Water	08/16/23 15:25	08/23/23 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616376001	BD15752 MW-11	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616376002	BD15753 FB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616376003	BD15754 MW-10	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616376004	BD15755 MW-8	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616376005	BD15756 MW-7	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616376006	BD15756 MW-7 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376007	BD15756 MW-7 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376008	BD15757 MW-12V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616376009	BD15758 MW-12	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616376010	BD15759 MW-13	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616376011	BD15760 MW-14	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616376012	BD15760 MW-14 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376013	BD15760 MW-14 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376014	BD15761 FB-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616376015	BD15762 MW-15	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376016	BD15763 MW-15 DUP	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376017	BD15764 MW-16	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376018	BD15765 MW-17R	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376019	BD15766 EB-1	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376020	BD15767 MW-5	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616376021	BD15768 MW-6	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616376022	BD15769 MW-20	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616376023	BD15770 MW-20 Dup	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616376024	BD15771 MW-19	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616376025	BD15772 MW-18	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: WMWGORLF_1420
Pace Project No.: 30616376

Method: EPA 9315
Description: 9315 Total Radium
Client: Alabama Power
Date: September 22, 2023

General Information:

25 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: WMWGORLF_1420
Pace Project No.: 30616376

Method: EPA 9320
Description: 9320 Radium 228
Client: Alabama Power
Date: September 22, 2023

General Information:

25 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: WMWGORLF_1420
Pace Project No.: 30616376

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Alabama Power
Date: September 22, 2023

General Information:

21 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15752 MW-11 **Lab ID: 30616376001** Collected: 08/15/23 11:14 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.332U ± 0.306 (0.592) C:92% T:NA	pCi/L	09/15/23 15:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.876 ± 0.424 (0.716) C:79% T:86%	pCi/L	09/18/23 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.21U ± 0.730 (1.31)	pCi/L	09/20/23 13:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15753 FB-1 **Lab ID: 30616376002** Collected: 08/15/23 11:55 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.141U ± 0.261 (0.596) C:78% T:NA	pCi/L	09/15/23 15:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.463U ± 0.337 (0.646) C:75% T:86%	pCi/L	09/18/23 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.604U ± 0.598 (1.24)	pCi/L	09/20/23 13:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15754 MW-10 **Lab ID: 30616376003** Collected: 08/15/23 13:23 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.267U ± 0.290 (0.585) C:84% T:NA	pCi/L	09/15/23 15:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.724 ± 0.387 (0.686) C:80% T:86%	pCi/L	09/18/23 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.991U ± 0.677 (1.27)	pCi/L	09/20/23 13:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.269U ± 0.263 (0.488) C:83% T:NA	pCi/L	09/15/23 15:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.0862U ± 0.284 (0.688) C:82% T:87%	pCi/L	09/18/23 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.269U ± 0.547 (1.18)	pCi/L	09/20/23 13:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15756 MW-7 **Lab ID: 30616376005** Collected: 08/15/23 16:06 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0803U ± 0.215 (0.516) C:94% T:NA	pCi/L	09/21/23 08:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.372U ± 0.356 (0.729) C:78% T:90%	pCi/L	09/18/23 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.452U ± 0.571 (1.25)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15756 MW-7 MS **Lab ID: 30616376006** Collected: 08/15/23 16:06 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	113.01 %REC ± NA (NA) C:NA T:NA	pCi/L	09/21/23 08:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	71.53 %REC ± NA (NA) C:NA T:NA	pCi/L	09/18/23 11:53	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15756 MW-7 MSD **Lab ID: 30616376007** Collected: 08/15/23 16:06 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	110.98 %REC 1.81RPD ± NA (NA) C:NA T:NA	pCi/L	09/21/23 08:40	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	90.55 %REC 23.47 RPD ± NA (NA) C:NA T:NA	pCi/L	09/18/23 11:53	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15757 MW-12V **Lab ID: 30616376008** Collected: 08/16/23 07:57 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.346U ± 0.309 (0.602) C:98% T:NA	pCi/L	09/21/23 10:09	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.516U ± 0.338 (0.634) C:80% T:86%	pCi/L	09/18/23 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.862U ± 0.647 (1.24)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15758 MW-12 **Lab ID: 30616376009** Collected: 08/16/23 09:03 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.620 ± 0.361 (0.540) C:89% T:NA	pCi/L	09/15/23 15:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.344U ± 0.345 (0.710) C:78% T:85%	pCi/L	09/18/23 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.964U ± 0.706 (1.25)	pCi/L	09/20/23 13:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15759 MW-13 **Lab ID: 30616376010** Collected: 08/16/23 10:22 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.170U ± 0.278 (0.622) C:82% T:NA	pCi/L	09/15/23 15:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.263U ± 0.376 (0.808) C:75% T:78%	pCi/L	09/18/23 11:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.433U ± 0.654 (1.43)	pCi/L	09/20/23 13:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15760 MW-14 **Lab ID: 30616376011** Collected: 08/16/23 12:12 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.561U ± 0.339 (0.565) C:99% T:NA	pCi/L	09/21/23 10:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.944 ± 0.400 (0.625) C:77% T:88%	pCi/L	09/18/23 11:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.51 ± 0.739 (1.19)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15760 MW-14 MS **Lab ID: 30616376012** Collected: 08/16/23 12:12 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	118.21 %REC ± NA (NA) C:NA T:NA	pCi/L	09/21/23 10:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	9.26 ± 1.86 (0.627) C:80% T:86%	pCi/L	09/18/23 11:54	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15760 MW-14 MSD **Lab ID: 30616376013** Collected: 08/16/23 12:12 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	104.69 %REC 12.13RPD ± NA (NA) C:NA T:NA	pCi/L	09/21/23 10:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	8.52 ± 1.72 (0.679) C:78% T:87%	pCi/L	09/18/23 11:54	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.221U ± 0.254 (0.523) C:93% T:NA	pCi/L	09/21/23 10:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.140U ± 0.312 (0.696) C:71% T:81%	pCi/L	09/18/23 11:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.361U ± 0.566 (1.22)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15762 MW-15 **Lab ID: 30616376015** Collected: 08/16/23 12:59 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.530U ± 0.337 (0.557) C:92% T:NA	pCi/L	09/21/23 10:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.595U ± 0.382 (0.717) C:78% T:83%	pCi/L	09/18/23 11:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.13U ± 0.719 (1.27)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15763 MW-15 DUP **Lab ID: 30616376016** Collected: 08/16/23 12:59 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.247U ± 0.239 (0.460) C:92% T:NA	pCi/L	09/21/23 10:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.645U ± 0.385 (0.712) C:81% T:86%	pCi/L	09/18/23 11:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.892U ± 0.624 (1.17)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15764 MW-16 **Lab ID: 30616376017** Collected: 08/16/23 14:17 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.508U ± 0.329 (0.548) C:91% T:NA	pCi/L	09/21/23 10:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.512U ± 0.376 (0.730) C:75% T:85%	pCi/L	09/18/23 11:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.02U ± 0.705 (1.28)	pCi/L	09/21/23 14:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.635 ± 0.332 (0.474) C:94% T:NA	pCi/L	09/21/23 10:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.257U ± 0.275 (0.569) C:80% T:91%	pCi/L	09/18/23 11:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.892U ± 0.607 (1.04)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD15766 EB-1 Lab ID: 30616376019 Collected: 08/16/23 15:40 Received: 08/23/23 09:50 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.127U ± 0.230 (0.523) C:93% T:NA	pCi/L	09/21/23 10:13	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.163U ± 0.259 (0.562) C:84% T:85%	pCi/L	09/18/23 11:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.290U ± 0.489 (1.09)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.222U ± 0.254 (0.530) C:104% T:NA	pCi/L	09/21/23 10:13	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.105U ± 0.301 (0.676) C:78% T:87%	pCi/L	09/18/23 11:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.327U ± 0.555 (1.21)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	1.29 ± 0.463 (0.485) C:99% T:NA	pCi/L	09/21/23 10:13	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.898 ± 0.454 (0.785) C:64% T:85%	pCi/L	09/18/23 15:00	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.19 ± 0.917 (1.27)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD15769 MW-20 Lab ID: 30616376022 Collected: 08/16/23 13:30 Received: 08/23/23 09:50 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.437U ± 0.287 (0.477) C:98% T:NA	pCi/L	09/21/23 10:51	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.337U ± 0.376 (0.770) C:70% T:86%	pCi/L	09/18/23 15:01	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.774U ± 0.663 (1.25)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15770 MW-20 Dup **Lab ID: 30616376023** Collected: 08/16/23 13:30 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.724 ± 0.342 (0.429) C:96% T:NA	pCi/L	09/21/23 10:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.575U ± 0.414 (0.795) C:66% T:85%	pCi/L	09/18/23 15:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.30 ± 0.756 (1.22)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15771 MW-19 **Lab ID: 30616376024** Collected: 08/16/23 14:35 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.160U ± 0.236 (0.518) C:97% T:NA	pCi/L	09/21/23 10:12	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0855U ± 0.352 (0.775) C:69% T:89%	pCi/L	09/18/23 15:01	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.246U ± 0.588 (1.29)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Sample: BD15772 MW-18 **Lab ID: 30616376025** Collected: 08/16/23 15:25 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.300U ± 0.259 (0.481) C:99% T:NA	pCi/L	09/21/23 10:12	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.201U ± 0.346 (0.823) C:70% T:83%	pCi/L	09/18/23 15:01	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.300U ± 0.605 (1.30)	pCi/L	09/21/23 14:56	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

QC Batch:	614490	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616376001, 30616376002, 30616376003, 30616376004, 30616376005, 30616376006, 30616376007, 30616376008, 30616376009, 30616376010, 30616376011, 30616376012, 30616376013, 30616376014, 30616376015, 30616376016, 30616376017, 30616376018, 30616376019, 30616376020

METHOD BLANK:	2991802	Matrix:	Water
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Associated Lab Samples: 30616376001, 30616376002, 30616376003, 30616376004, 30616376005, 30616376006, 30616376007, 30616376008, 30616376009, 30616376010, 30616376011, 30616376012, 30616376013, 30616376014, 30616376015, 30616376016, 30616376017, 30616376018, 30616376019, 30616376020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.527 ± 0.320 (0.590) C:83% T:91%	pCi/L	09/18/23 11:53	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

QC Batch: 612796	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30616376001, 30616376002, 30616376003, 30616376004, 30616376009, 30616376010

METHOD BLANK: 2982880 Matrix: Water

Associated Lab Samples: 30616376001, 30616376002, 30616376003, 30616376004, 30616376009, 30616376010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0701 ± 0.115 (0.256) C:84% T:NA	pCi/L	09/15/23 15:10	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

QC Batch: 614497 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Laboratory: Pace Analytical Services - Greensburg
 Associated Lab Samples: 30616376021, 30616376022, 30616376023, 30616376024, 30616376025

METHOD BLANK: 2991829 Matrix: Water
 Associated Lab Samples: 30616376021, 30616376022, 30616376023, 30616376024, 30616376025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.345 ± 0.359 (0.727) C:66% T:82%	pCi/L	09/18/23 15:00	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORLF_1420
 Pace Project No.: 30616376

QC Batch:	612798	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616376005, 30616376006, 30616376007, 30616376008, 30616376011, 30616376012, 30616376013, 30616376014, 30616376015, 30616376016, 30616376017, 30616376018, 30616376019, 30616376020, 30616376021, 30616376022, 30616376023, 30616376024, 30616376025

METHOD BLANK:	2982881	Matrix:	Water
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Associated Lab Samples: 30616376005, 30616376006, 30616376007, 30616376008, 30616376011, 30616376012, 30616376013, 30616376014, 30616376015, 30616376016, 30616376017, 30616376018, 30616376019, 30616376020, 30616376021, 30616376022, 30616376023, 30616376024, 30616376025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0767 ± 0.0962 (0.203) C:95% T:NA	pCi/L	09/21/23 08:36	

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

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QUALIFIERS

Project: WMWGORLF_1420
Pace Project No.: 30616376

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616376001	BD15752 MW-11	EPA 9315	612796		
30616376002	BD15753 FB-1	EPA 9315	612796		
30616376003	BD15754 MW-10	EPA 9315	612796		
30616376004	BD15755 MW-8	EPA 9315	612796		
30616376005	BD15756 MW-7	EPA 9315	612798		
30616376006	BD15756 MW-7 MS	EPA 9315	612798		
30616376007	BD15756 MW-7 MSD	EPA 9315	612798		
30616376008	BD15757 MW-12V	EPA 9315	612798		
30616376009	BD15758 MW-12	EPA 9315	612796		
30616376010	BD15759 MW-13	EPA 9315	612796		
30616376011	BD15760 MW-14	EPA 9315	612798		
30616376012	BD15760 MW-14 MS	EPA 9315	612798		
30616376013	BD15760 MW-14 MSD	EPA 9315	612798		
30616376014	BD15761 FB-2	EPA 9315	612798		
30616376015	BD15762 MW-15	EPA 9315	612798		
30616376016	BD15763 MW-15 DUP	EPA 9315	612798		
30616376017	BD15764 MW-16	EPA 9315	612798		
30616376018	BD15765 MW-17R	EPA 9315	612798		
30616376019	BD15766 EB-1	EPA 9315	612798		
30616376020	BD15767 MW-5	EPA 9315	612798		
30616376021	BD15768 MW-6	EPA 9315	612798		
30616376022	BD15769 MW-20	EPA 9315	612798		
30616376023	BD15770 MW-20 Dup	EPA 9315	612798		
30616376024	BD15771 MW-19	EPA 9315	612798		
30616376025	BD15772 MW-18	EPA 9315	612798		
30616376001	BD15752 MW-11	EPA 9320	614490		
30616376002	BD15753 FB-1	EPA 9320	614490		
30616376003	BD15754 MW-10	EPA 9320	614490		
30616376004	BD15755 MW-8	EPA 9320	614490		
30616376005	BD15756 MW-7	EPA 9320	614490		
30616376006	BD15756 MW-7 MS	EPA 9320	614490		
30616376007	BD15756 MW-7 MSD	EPA 9320	614490		
30616376008	BD15757 MW-12V	EPA 9320	614490		
30616376009	BD15758 MW-12	EPA 9320	614490		
30616376010	BD15759 MW-13	EPA 9320	614490		
30616376011	BD15760 MW-14	EPA 9320	614490		
30616376012	BD15760 MW-14 MS	EPA 9320	614490		
30616376013	BD15760 MW-14 MSD	EPA 9320	614490		
30616376014	BD15761 FB-2	EPA 9320	614490		
30616376015	BD15762 MW-15	EPA 9320	614490		
30616376016	BD15763 MW-15 DUP	EPA 9320	614490		
30616376017	BD15764 MW-16	EPA 9320	614490		
30616376018	BD15765 MW-17R	EPA 9320	614490		
30616376019	BD15766 EB-1	EPA 9320	614490		
30616376020	BD15767 MW-5	EPA 9320	614490		
30616376021	BD15768 MW-6	EPA 9320	614497		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORLF_1420
 Pace Project No.: 30616376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616376022	BD15769 MW-20	EPA 9320	614497		
30616376023	BD15770 MW-20 Dup	EPA 9320	614497		
30616376024	BD15771 MW-19	EPA 9320	614497		
30616376025	BD15772 MW-18	EPA 9320	614497		
30616376001	BD15752 MW-11	Total Radium Calculation	616844		
30616376002	BD15753 FB-1	Total Radium Calculation	616844		
30616376003	BD15754 MW-10	Total Radium Calculation	616844		
30616376004	BD15755 MW-8	Total Radium Calculation	616844		
30616376005	BD15756 MW-7	Total Radium Calculation	617206		
30616376008	BD15757 MW-12V	Total Radium Calculation	617206		
30616376009	BD15758 MW-12	Total Radium Calculation	616844		
30616376010	BD15759 MW-13	Total Radium Calculation	616844		
30616376011	BD15760 MW-14	Total Radium Calculation	617206		
30616376014	BD15761 FB-2	Total Radium Calculation	617206		
30616376015	BD15762 MW-15	Total Radium Calculation	617206		
30616376016	BD15763 MW-15 DUP	Total Radium Calculation	617206		
30616376017	BD15764 MW-16	Total Radium Calculation	617206		
30616376018	BD15765 MW-17R	Total Radium Calculation	617206		
30616376019	BD15766 EB-1	Total Radium Calculation	617206		
30616376020	BD15767 MW-5	Total Radium Calculation	617206		
30616376021	BD15768 MW-6	Total Radium Calculation	617206		
30616376022	BD15769 MW-20	Total Radium Calculation	617206		
30616376023	BD15770 MW-20 Dup	Total Radium Calculation	617206		
30616376024	BD15771 MW-19	Total Radium Calculation	617206		
30616376025	BD15772 MW-18	Total Radium Calculation	617206		

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CHAIN-OF-CUSTODY / Analytical Request Document


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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Alabama Power Company	Report To:	Brooke Catton	Attention:	Brooke Catton
Address:	744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To:	Renee Jernigan & Blaine Denton	Company Name:	Alabama Power Co.
Email To:	tbwill@southernco.com	Purchase Order #:	AP087119-0001	Address:	744 Highway 87 GSC Bldg #8 CCR
Phone:	205-664-6101	Project Name:	Plant Gorgas CCB Landfills	Face Quote:	CCR
Requested Due Date:	Normal	Project Number:	VMWGORLF_1420	Face Project Manager:	Skylar Richmond
				Project Profile #:	16788
				State / Location:	AL
				Regulatory Agency:	

ITEM #	DESCRIPTION	STATION NAME LOCATION_CODE	SITE NAME FACILITY_ID	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	START TIME	FIELD FILTERED	MATRIX CODE	# OF CONTAINERS	PRESERVATIVES				ANALYSES TEST	DATE	TIME	SAMPLE CONDITIONS
										UNPRESERVED	NaOH+ZnAcetate	HNO3	Y/N				
1	BD15752	APCO-GS-CCB-MW-11	APCO_Gorgas_CCB_Landfills	G	8/15/2023	11:14		GW	1		X		X	X	001		
2	BD15753	APCO-GS-CCB-FB-01	APCO_Gorgas_CCB_Landfills	G	8/15/2023	11:55		GW	1		X		X	X	002		
3	BD15754	APCO-GS-CCB-MW-10	APCO_Gorgas_CCB_Landfills	G	8/15/2023	13:23		GW	1		X		X	X	003		
4	BD15755	APCO-GS-CCB-MW-8	APCO_Gorgas_CCB_Landfills	G	8/15/2023	15:02		GW	1		X		X	X	004		
5	BD15756	APCO-GS-CCB-MW-7	APCO_Gorgas_CCB_Landfills	G	8/15/2023	16:06		GW	3		X		X	X	005,006,007		
6	BD15757	APCO-GS-CCB-MW-12V	APCO_Gorgas_CCB_Landfills	G	8/16/2023	7:57	X	GW	1		X		X	X	008		
7	BD15758	APCO-GS-CCB-MW-12	APCO_Gorgas_CCB_Landfills	G	8/16/2023	9:03		GW	1		X		X	X	009		
8	BD15759	APCO-GS-CCB-MW-13	APCO_Gorgas_CCB_Landfills	G	8/16/2023	10:22		GW	1		X		X	X	010		
9	BD15760	APCO-GS-CCB-MW-14	APCO_Gorgas_CCB_Landfills	G	8/16/2023	12:12	X	GW	3		X		X	X	011,012,013		
10	BD15761	APCO-GS-CCB-FB-02	APCO_Gorgas_CCB_Landfills	G	8/16/2023	12:40		GW	1		X		X	X	014		
11	BD15762	APCO-GS-CCB-MW-15	APCO_Gorgas_CCB_Landfills	G	8/16/2023	12:59		GW	1		X		X	X	015		
12	BD15763	APCO-GS-CCB-MW-15	APCO_Gorgas_CCB_Landfills	G	8/16/2023	12:59	X	GW	1		X		X	X	016		

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Brooke Catton/ APC GTL	8/18/2023	15:31	Jessy D. Goodwin	8-23-23	9:50

W0# : 30616376



30616376

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Alabama Power Company	Report To: Brooke Caton	Company Name: Alabama Power Co.	Attention: Brooke Caton	Company Name: Alabama Power Co.	Attention: Brooke Caton
Address: 744 Highway 87 GSC Bldg #8	Copy To: Renee Jernigan & Blaine Denton	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8
Calera, AL 35040		Calera, AL 35040		Calera, AL 35040	
Email To: ibwill@southernco.com	Purchase Order #: APC87119-0001	Facility ID: 1420	Facility ID: 1420	Facility ID: 1420	Facility ID: 1420
Phone: 205-664-6101	Project Name: Plant Gorgas CCB Landfills	Matrix Spike/Matrix Spike Duplicate	Matrix Spike/Matrix Spike Duplicate	Matrix Spike/Matrix Spike Duplicate	Matrix Spike/Matrix Spike Duplicate
Requested Due Date: Normal	Project Number: WMWGORLF_1420	Sample Duplicate	Sample Duplicate	Sample Duplicate	Sample Duplicate
		Field Filtered	Field Filtered	Field Filtered	Field Filtered
		Matrix Spike/Matrix Spike Duplicate	Matrix Spike/Matrix Spike Duplicate	Matrix Spike/Matrix Spike Duplicate	Matrix Spike/Matrix Spike Duplicate
		Sample Duplicate	Sample Duplicate	Sample Duplicate	Sample Duplicate
		Requested Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)

ITEM #	Description	Station Name Location_Code	Site Name Facility_ID	Matrix Spike/Matrix Spike Duplicate	Field Filtered	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	# OF CONTAINERS	Unpreserved	NaOH+ZnAcetate	HNO3	Preservatives	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
1	BD15764	APCO-GS-CCB-MW-16	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	14:17	X	X	X	X	X	X	X	X	X	X	017
2	BD15765	APCO-GS-CCB-MW-17R	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	15:05	X	X	X	X	X	X	X	X	X	X	018
3	BD15766	APCO-GS-CCB-EB-01	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	15:40	X	X	X	X	X	X	X	X	X	X	019
4	BD15767	APCO-GS-CCB-MW-5	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	10:40	X	X	X	X	X	X	X	X	X	X	020
5	BD15768	APCO-GS-CCB-MW-6	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	12:20	X	X	X	X	X	X	X	X	X	X	020
6	BD15769	APCO-GS-CCB-MW-20	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	13:30	X	X	X	X	X	X	X	X	X	X	021
7	BD15770	APCO-GS-CCB-MW-20 Dup	APCO_Gorgas_CCB_Landfills	x		GW G	8/16/2023	13:30	X	X	X	X	X	X	X	X	X	X	022
8	BD15771	APCO-GS-CCB-MW-19	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	14:35	X	X	X	X	X	X	X	X	X	X	023
9	BD15772	APCO-GS-CCB-MW-18	APCO_Gorgas_CCB_Landfills			GW G	8/16/2023	15:25	X	X	X	X	X	X	X	X	X	X	025
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on	Custody	Sealed	Cooler	(Y/N)	Intact
	Brooke Caton / APC GTL	8/18/2023	15:37	Jeff Wlodek / PWR	8/23/23	01:50	N/A	N	Y	Y	Y	Y	Y

WOW# : 30616376

PMO SCR Due Date: 09/21/23

CLIENT: ALABAMA PWR

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER:

DATE Signed:



DC#_ Title: ENV-FRM-GBUR-0088 v05_Sample Condition Upon Receipt-

Pittsburgh

WO#: 30616376

Effective Date: 07/06/2023

PM: SCR

Due Date: 09/21/23

CLIENT: ALABAMA PWR

Client Name: Alabama Power Corp.

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Initial / Date

Tracking Number: 7012 3696 8584

Examined By: ps 8/24/23

Custody Seal on Cooler/Box Present: Yes No

Seals Intact: Yes No

Labeled By: ps 8/24/23

Thermometer Used: _____ Type of Ice: Wet Blue (None)

Temped By: _____

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

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				1003121	_____
Chain of Custody Present	/			1.	
Chain of Custody Filled Out:	/			2.	
-Were client corrections present on COC		/			
Chain of Custody Relinquished		/		3.	
Sampler Name & Signature on COC:		/		4.	
Sample Labels match COC:	/			5.	
-Includes date/time/ID					
Matrix:					
Samples Arrived within Hold Time:	/			6.	
Short Hold Time Analysis (<72hr remaining):		/		7.	
Rush Turn Around Time Requested:		/		8.	
Sufficient Volume:	/			9.	
Correct Containers Used:	/			10.	
-Pace Containers Used	/				
Containers Intact:	/			11.	
Orthophosphate field filtered:			/	12.	
Hex Cr Aqueous samples field filtered:			/	13.	
Organic Samples checked for dechlorination			/	14.	
Filtered volume received for dissolved tests:			/	15.	
All containers checked for preservation:	/			16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix					
All containers meet method preservation requirements:	/			Initial when completed PS	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			/	17.	
624.1: Headspace in VOA Vials (0mm)			/	18.	
Trip Blank Present:			/	Trip blank custody seal present? YES or NO	
Rad Samples Screened <0.5 mrem/hr.	X			Initial when completed LA	Date: 8-23-23 Survey Meter SN: 1563
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: ZPC
Date: 9/14/2023
Worklist: 75262
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2991802
MB Concentration:	0.527
MB 2 Sigma CSU:	0.320
MB MDC:	0.590
MB Numerical Performance Indicator:	3.22
MB Status vs Numerical Indicator:	Fail
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	LCSD75262	N
Count Date:	9/18/2023	LCSD75262		
Spike I.D.:	23-043			
Decay Corrected Spike Concentration (pCi/mL):	39.775			
Volume Used (mL):	0.10			
Aliquot Volume (L, g, F):	0.816			
Target Conc. (pCi/L, g, F):	4.877			
Uncertainty (Calculated):	0.239			
Result (pCi/L, g, F):	4.947			
LCSD/CSU 2 Sigma CSU (pCi/L, g, F):	1.124			
Numerical Performance Indicator:	0.12			
Percent Recovery:	101.43%			
Status vs Numerical Indicator:	N/A			
Status vs Recovery:	Pass			
Upper % Recovery Limits:	135%			
Lower % Recovery Limits:	60%			

Duplicate Sample Assessment		LCSD (Y or N)?	LCSD75262	N
Sample I.D.:	Duplicate Sample I.D.:			
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):			
Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):			
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):			
Are sample and/or duplicate results below RL?	Are sample and/or duplicate results below RL?			
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator:			
Duplicate Status vs Numerical Indicator:	Duplicate Status vs Numerical Indicator:			
Duplicate Status vs RPD:	Duplicate Status vs RPD:			
% RPD Limit:	% RPD Limit:			

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/15/2023		
Sample I.D.:	30616376005		
Sample MS I.D.:	30616376006		
Sample MS I.D.:	30616376007		
Spike I.D.:	23-043		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	40.221		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.807		
MS Target Conc. (pCi/L, g, F):	9.964		
MSD Aliquot (L, g, F):	0.807		
MSD Target Conc. (pCi/L, g, F):	9.965		
MS Spike Uncertainty (calculated):	0.488		
MSD Spike Uncertainty (calculated):	0.488		
Sample Result:	0.372		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.356		
Sample Matrix Spike Result:	7.489		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.570		
Sample Matrix Spike Duplicate Result:	1.893		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	9.396		
MS Numerical Performance Indicator:	-3.305		
MSD Numerical Performance Indicator:	-0.929		
MS Percent Recovery:	90.55%		
MSD Percent Recovery:	71.53%		
MS Status vs Numerical Indicator:	Fail****		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	135%		
MS/MSD Lower % Recovery Limits:	60%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30616376005
Sample MS I.D.:	30616376006
Sample MS I.D.:	30616376007
Sample Matrix Spike Result:	7.499
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.570
Sample Matrix Spike Duplicate Result:	9.396
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.893
Duplicate Numerical Performance Indicator:	-1.511
MS/MSD Duplicate Status vs Numerical Indicator:	23.47%
MS/MSD Duplicate Status vs RPD:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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

Comments: If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

****If all other QC criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias for this sample only and may not be applicable to any other samples in this analytical batch.

Handwritten signature

Handwritten: VAL 9/19/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/7/2023
Worklist: 75120
Matrix: WT

Method Blank Assessment	
MB Sample ID	2982880
MB concentration:	0.070
M/B 2 Sigma CSU:	0.115
MB MDC:	0.256
MB Numerical Performance Indicator:	1.20
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		
Count Date:	LCS (Y or N)?	Y
9/15/2023	LCS75120	9/15/2023
19-033		19-033
24.013		24.013
0.10		0.10
0.510		0.504
4.705		4.767
0.056		0.057
5.530		5.299
0.969		0.934
1.67		1.11
117.53%		111.16%
Pass		Pass
N/A		N/A
125%		125%
75%		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS75120
Duplicate Sample I.D.:	LCS75120
Sample Result (pCi/L, g, F):	5.530
Sample Duplicate Result (pCi/L, g, F):	0.969
Sample Result 2 Sigma CSU (pCi/L, g, F):	5.299
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.934
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.335
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.57%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		8/7/2023	
Sample I.D.:		30616118034	
Sample MS I.D.:		30616118035	
Sample MSD I.D.:		30616118036	
Spike I.D.:		19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		24.014	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.325	
MS Target Conc. (pCi/L, g, F):		14.786	
MSD Aliquot (L, g, F):		0.324	
MSD Target Conc. (pCi/L, g, F):		14.814	
MS Spike Uncertainty (calculated):		0.177	
MSD Spike Uncertainty (calculated):		0.178	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.263	
Sample Matrix Spike Result:		0.207	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		17.009	
Sample Matrix Spike Duplicate Result:		2.760	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		18.385	
MS Numerical Performance Indicator:		2.966	
MSD Numerical Performance Indicator:		1.386	
MS Percent Recovery:		2.177	
MSD Percent Recovery:		113.26%	
MS Status vs Numerical Indicator:		122.33%	
MSD Status vs Numerical Indicator:		Pass	
MS Status vs Recovery:		Warning	
MSD Status vs Recovery:		N/A	
MS/MSD Upper % Recovery Limits:		N/A	
MS/MSD Lower % Recovery Limits:		125%	
		75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30616118034
Sample MS I.D.:	30616118035
Sample MSD I.D.:	30616118036
Sample Matrix Spike Result:	17.009
Sample Matrix Spike Duplicate Result:	2.760
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	18.385
Sample Matrix Spike Duplicate Result:	2.966
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	-0.666
Duplicate Numerical Performance Indicator:	7.70%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	Pass
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

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

Comments:

JFK-1803

RAM9/18/23

Quality Control Sample Performance Assessment



Analyst *Must Manually Enter All Fields Highlighted in Yellow.*

Test: Ra-226
Analyst: SLC
Date: 9/7/2023
Worklist: 75121
Matrix: WT

Method Blank Assessment	
MB Sample ID	2982881
MB concentration:	0.077
MB 2 Sigma CSU:	0.096
MB MDC:	0.203
MB Numerical Performance Indicator:	1.56
MB Status vs. Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	
LCS(Y or N)?	N
LCS75121	LCS075121
Count Date:	9/21/2023
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.013
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.501
Target Conc. (pCi/L, g, F):	4.791
Uncertainty (Calculated):	0.057
Result (pCi/L, g, F):	6.226
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.060
Numerical Performance Indicator:	2.65
Percent Recovery:	129.94%
Status vs Numerical Indicator:	Warning
Status vs Recovery:	N/A
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	See Below ##
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

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

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1
Sample I.D.:	8/15/2023
Sample MS I.D.:	30616376005
Sample MSD I.D.:	30616376006
Spike I.D.:	30616376007
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19-033
Spike Volume Used in MS (mL):	24.014
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.20
MS Target Conc. (pCi/L, g, F):	0.212
MSD Aliquot (L, g, F):	22.678
MSD Target Conc. (pCi/L, g, F):	0.213
MS Spike Uncertainty (calculated):	22.517
MS Numerical Performance Indicator:	0.272
MS Percent Recovery:	0.270
MS Status vs Numerical Indicator:	0.080
MS Status vs Recovery:	0.561
MS/MSD Upper % Recovery Limits:	0.339
MS/MSD Lower % Recovery Limits:	28.801
MS/MSD Duplicate Status vs RPD:	25.708
% RPD Limit:	4.089
	25.070
	4.010
	1.409
	1.204
	113.01%
	110.96%
	Pass
	Pass
	Pass
	N/A
	N/A
	N/A
	125%
	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	MS/MSD 2
Sample MS I.D.:	8/16/2023
Sample MSD I.D.:	30616376011
Spike I.D.:	30616376012
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	30616376013
Spike Volume Used in MS (mL):	19-033
Spike Volume Used in MSD (mL):	24.014
MS Aliquot (L, g, F):	0.20
MS Target Conc. (pCi/L, g, F):	0.20
MSD Aliquot (L, g, F):	0.201
MSD Target Conc. (pCi/L, g, F):	23.890
MS Spike Uncertainty (calculated):	0.204
MS Numerical Performance Indicator:	23.487
MS Percent Recovery:	0.287
MS Status vs Numerical Indicator:	0.282
MS Status vs Recovery:	0.561
MS/MSD Upper % Recovery Limits:	0.339
MS/MSD Lower % Recovery Limits:	28.801
MS/MSD Duplicate Status vs RPD:	25.708
% RPD Limit:	4.089
	25.070
	4.010
	1.409
	1.204
	113.01%
	110.96%
	Pass
	Pass
	Pass
	N/A
	N/A
	N/A
	125%
	75%



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JJS1
Date: 9/14/2023
Worklist: 75264
Matrix: W/T

Method Blank Assessment	
MB Sample ID	2991829
MB concentration:	0.345
M/B 2 Sigma CSU:	0.359
MB MDC:	0.727
MB Numerical Performance Indicator:	1.88
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	9/18/2023
Spike I.D.:	LCS15284
Decay Corrected Spike Concentration (pCi/ml):	23.043
Volume Used (ml):	39.773
Aliquot Volume (L, g, F):	0.816
Target Conc. (pCi/L, g, F):	4.874
Uncertainty (Calculated):	0.239
Result (pCi/L, g, F):	4.803
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.136
Numerical Performance Indicator:	-0.12
Percent Recovery:	98.55%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

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

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 8/15/2023
Sample I.D.:	306163984003
Sample MS I.D.:	306163984004
Sample MSD I.D.:	306163984005
Spike I.D.:	23-043
MS/MSD Decay Corrected Spike Concentration (pCi/ml):	40.224
Spike Volume Used in MS (ml):	0.20
Spike Volume Used in MSD (ml):	0.20
MS Aliquot (L, g, F):	0.803
MS Target Conc. (pCi/L, g, F):	10.024
MSD Aliquot (L, g, F):	0.802
MSD Target Conc. (pCi/L, g, F):	10.025
MS Spike Uncertainty (calculated):	0.491
MSD Spike Uncertainty (calculated):	0.491
Sample Result:	0.447
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.377
Sample Matrix Spike Result:	7.948
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.633
Sample Matrix Spike Duplicate Result:	9.239
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.871
MS Numerical Performance Indicator:	-1.227
MSD Numerical Performance Indicator:	74.83%
MS Percent Recovery:	87.69%
MSD Percent Recovery:	Warning
MS Status vs Numerical Indicator:	Pass
MSD Status vs Numerical Indicator:	Pass
MS Status vs Recovery:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	306163984003
Sample MS I.D.:	306163984004
Sample MSD I.D.:	306163984005
Sample Matrix Spike Result:	7.948
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.633
Sample Matrix Spike Duplicate Result:	9.239
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.871
Duplicate Numerical Performance Indicator:	-1.018
(Based on the Percent Recovery) MS/MSD Duplicate RPD:	15.82%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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

Comments:

WAL

9/20/23

Appendix D



Appendix D. Horizontal Groundwater Flow Velocity Calculations
Plant Gorgas Landfills

2023 First-Annual Monitoring Event								
Date of Measurement	MW-2	MW-20	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K	n	(ft/d)	(ft/yr)
2/20/2023	419.04	314.45	3507.0	0.030	8.01	0.15	1.59	581.28
2023 Second-Annual Monitoring Event								
Date of Measurement	MW-3	MW-6	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K	n	(ft/d)	(ft/yr)
2/20/2023	419.16	320.13	2970.0	0.033	8.01	0.15	1.78	649.90
Date of Measurement	MW-14	MW-19	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K	n	(ft/d)	(ft/yr)
2/20/2023	341.59	300.73	1890.0	0.022	8.01	0.15	1.15	421.38
2023 Second-Annual Monitoring Event								
Date of Measurement	MW-2	MW-20	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K	n	(ft/d)	(ft/yr)
8/15/2023	417.63	313.14	3507.0	0.030	8.01	0.15	1.59	580.73
Date of Measurement	MW-3	MW-6	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K	n	(ft/d)	(ft/yr)
8/15/2023	416.03	307.45	2970.0	0.037	8.01	0.15	1.95	712.57
Date of Measurement	MW-14	MW-19	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K	n	(ft/d)	(ft/yr)
8/15/2023	341.40	298.41	1890.0	0.023	8.01	0.15	1.21	443.34

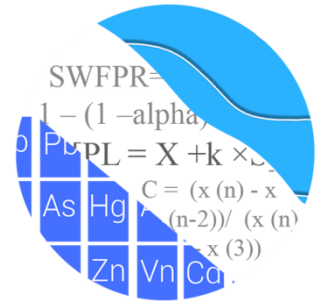
Notes:
ft=feet
ft/d = feet/day
ft/ft = feet per foot
ft/yr = feet per year
ft/yr = feet per year

Appendix E

GROUNDWATER STATS CONSULTING

May 30, 2023

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Gorgas Bottom Ash Landfill
1st Semi-Annual Statistical Analysis – February 2023

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 February 2023 1st semi-annual sample event for Alabama Power Company's Plant Gorgas Bottom Ash Landfill. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (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-7, MW-8, MW-10, MW-11, and MW-12
- **Delineation well:** MW-12V

Note that data from delineation well MW-12V did not require statistics; therefore, data for this well were plotted only on time series and box plots.

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 Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program consists of the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

Appendix III (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Appendix IV (Assessment Monitoring) - 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 Appendix IV downgradient well/constituent pairs containing 100% non-detects follows this letter.

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 non-detect 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): 13
- # Background Samples (Interwell): 107
- # Constituents: 7
- # Downgradient wells: 5

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 calcium, fluoride, sulfate, and TDS
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, 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 non-detects, 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 (US EPA, 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% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the 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 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 Summaries

Fall 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. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate calcium, fluoride, sulfate, and TDS at all wells due to natural spatial variation for these parameters. In September 2019, historical data were evaluated for updating with newer data through May 2019 through the use of time series graphs and Tukey's outlier test to identify potential outliers, when necessary, as well as the Mann-Whitney test for equality of medians. This process is described below for the 2021 update and requires a minimum of four new data points. During the 2019 screening, all background data sets for constituents using intrawell prediction limits were updated through May 2019 and a summary of these results was included with the Mann-Whitney test section in that report.

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 boron, chloride, and pH. As mentioned above, these limits are updated following each sampling event after 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.

Fall 2021

Outlier Analysis

Prior to constructing prediction limits, proposed background data--through February 2021 for constituents evaluated with intrawell prediction limits and through July 2021 for

constituents evaluated with interwell constituents--were reviewed through the use of time series graphs to identify any newly suspected outliers at all wells for calcium, fluoride, sulfate, and TDS, and at upgradient wells for boron, chloride, and pH. When values are identified as outliers, these measurements are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative (i.e., lower) from a regulatory perspective.

A high non-detect value was flagged as an outlier for boron in upgradient well MW-4. Additionally, high detected values for boron in downgradient well MW-7, sulfate at upgradient well MW-1 and downgradient wells MW-7 and MW-8, and TDS in upgradient well MW-1 were flagged as outliers since these values were not representative of remaining concentrations within their respective wells. 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 flagged outliers follows this report (Figure C).

Intrawell - Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2019 to compliance data through February 2021. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- Fluoride: MW-12
- TDS: MW-12

Decrease

- Fluoride: MW-8
- Sulfate: MW-11
- TDS: MW-11

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a naturally occurring shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is

of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

For well/constituent pairs with statistically significant decreases in medians, the background datasets were updated with new measurements at lower concentrations in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective and be representative of present-day groundwater quality.

Regarding well/constituent pairs with statistically significant increases in medians, the group of new measurements for TDS in downgradient MW-12 were similar to those observed historically in upgradient wells and are relatively stable. Therefore, these records were updated with more recent data. For fluoride in well MW-12, however, some of the compliance samples are elevated compared to historical concentrations within this well. In order to maintain statistical limits that are conservative (i.e., lower) from a regulatory perspective, this record was not updated with more recent measurements and will be re-evaluated during the next background update. The Mann-Whitney results were submitted with the report. All records will be re-evaluated during the next background update when a minimum of 4 compliance samples are available. A list of well/constituent pairs with a truncated portion of their record follows this letter (Date Ranges). All other records were updated with compliance data through February 2021.

Interwell – Trend Test Evaluation

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 may require deselection 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 except for an increasing trend for boron in upgradient well MW-2. The increasing trend, however, is a result of historic trace values earlier in the record followed by non-detect values. Therefore, no adjustments were required.

Evaluation of Appendix III Parameters – February 2023

Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for calcium, fluoride, sulfate, and TDS using screened background data through February 2021 at each well. (Figure D). Intrawell limits constructed from 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. This statistical method removes the element of variation across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. The February 2023 observation is compared to its respective background from the same well to determine whether initial exceedances are present.

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, chloride, and pH (Figure E). Interwell prediction limits pool upgradient well data through February 2023 to establish a background limit for an individual constituent. The February 2023 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present. Note that the lowest value for pH at upgradient well MW-3 was flagged during this analysis in order to construct statistical limits that are more conservative from a regulatory perspective. A summary of flagged outliers follows this report (Figure C).

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.

Complete prediction limits results and a summary of exceedances follow this letter (pages 15-18). Exceedances were identified for the following well/constituent pairs:

Intrawell:

- Fluoride: MW-1, MW-2 (both upgradient), MW-7, MW-12

Interwell:

- Boron: MW-10, MW-11, and MW-12
- Chloride: MW-7, MW-8, MW-11, and MW-12
- pH: MW-7, MW-8, MW-10, and MW-11

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level 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 (pages 19-20). Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Boron: MW-1 (upgradient), MW-2 (upgradient), and MW-11
- Chloride: MW-11 and MW-12
- Fluoride: MW-2 (upgradient) and MW-12
- pH: MW-2 (upgradient), MW-8, and MW-11

Decreasing

- Chloride: MW-8
- pH: MW-1 (upgradient)

Note that the increasing trends for boron at upgradient wells MW-1 and MW-2 are a result of observations lower than the current reporting limit early in the record followed by non-detects.

Evaluation of Appendix IV Parameters – February 2023

Data from upgradient wells for Appendix IV parameters were assessed for outliers during previous analyses. No new outliers were flagged during this analysis.

During the previous screening, high values for cobalt and lead in upgradient well MW-3 were flagged in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective. A previously flagged value of selenium (0.0209 mg/L) was unflagged in well MW-3. A summary of flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during the 2021 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2023 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

Interwell Upper Tolerance Limits

First, background limits were determined using tolerance limits constructed from pooled upgradient well data through July 2021 (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed. A summary of the upper tolerance limits follows this report (page 21).

Groundwater Protection Standards

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, page 22) in the confidence interval comparisons described below. Exceptions are noted in Figure H for beryllium and cadmium. For these two parameters, the MCLs were used as the GWPS rather than the higher background UTLs to maintain the more conservative standard.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through February 2023 for each of the Appendix IV parameters (Figure I). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

As mentioned above, well/constituent pairs containing 100% non-detects for the most recent 8 samples did not require statistics; therefore, they were deselected prior to construction of confidence intervals. A list of deselected well/constituent pairs follows this report. 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 (pages 23-24). The following confidence interval exceedance was noted:

- Arsenic: MW-12

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Gorgas Bottom Ash Landfill. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

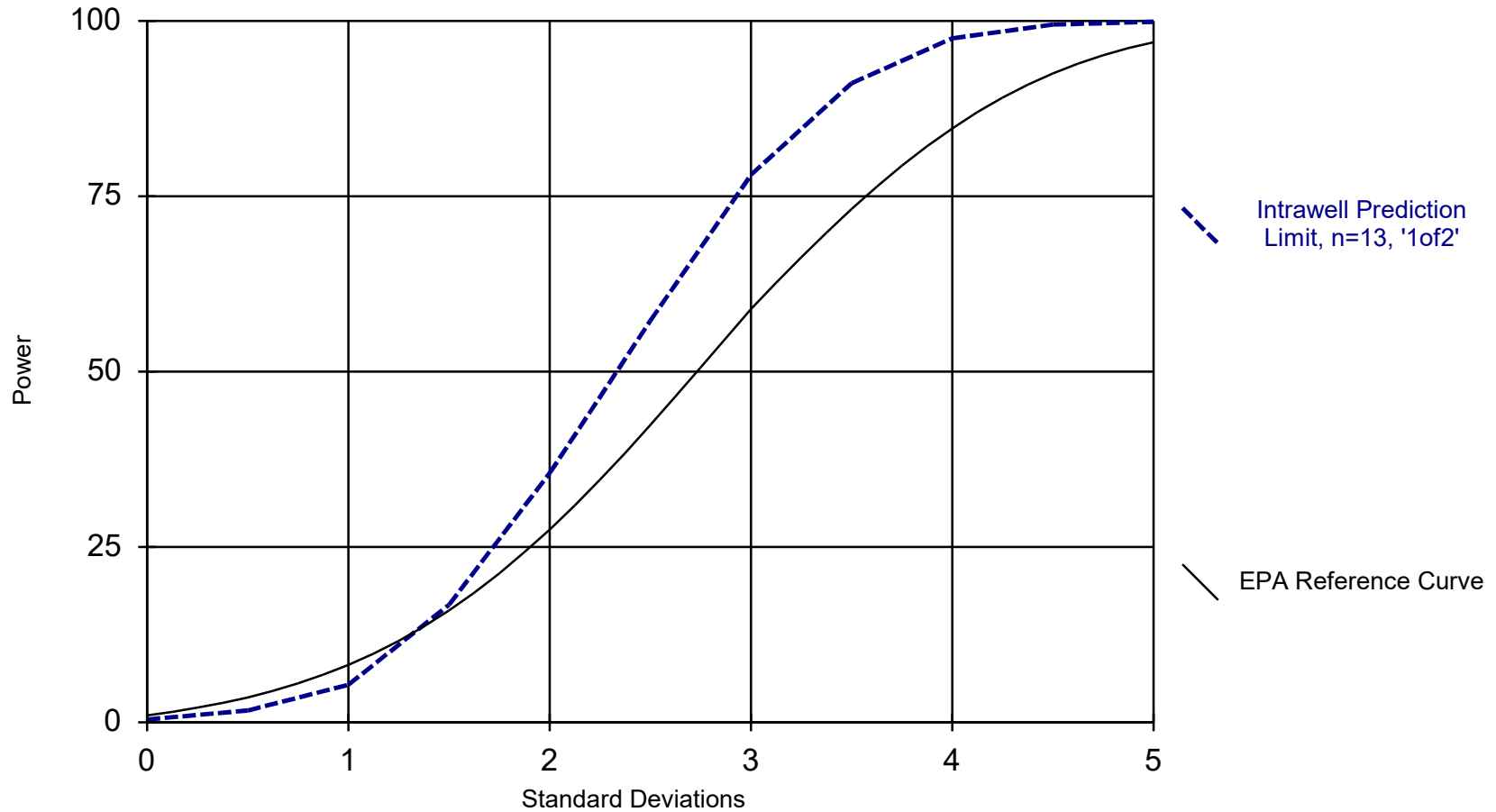


Easton Rayner
Groundwater Analyst



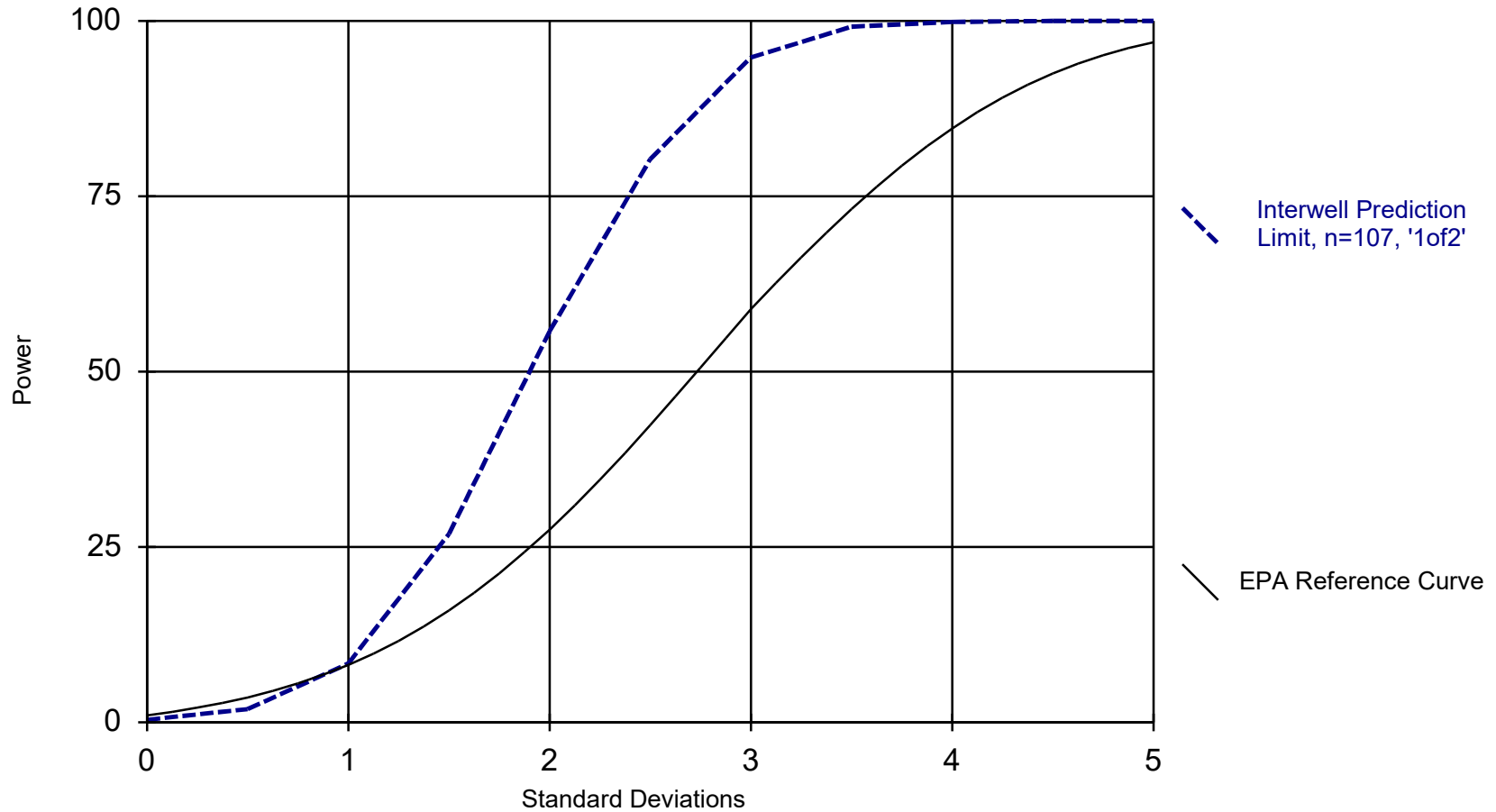
Andrew T. Collins
Project Manager

Intrawell Power Curve



Kappa = 2.279, based on 5 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Interwell Power Curve



Kappa = 1.804, based on 5 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Date Ranges

Date: 5/16/2023 2:22 PM

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Fluoride (mg/L)

MW-12 background:4/28/2016-5/15/2019

100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Antimony (mg/L)
MW-10, MW-11, MW-12, MW-7, MW-8

Beryllium (mg/L)
MW-11, MW-12, MW-7, MW-8

Cadmium (mg/L)
MW-11, MW-12, MW-7, MW-8

Lead (mg/L)
MW-7

Mercury (mg/L)
MW-10, MW-11, MW-12, MW-7, MW-8

Selenium (mg/L)
MW-11, MW-8

Thallium (mg/L)
MW-10, MW-11, MW-7, MW-8

Intrawell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	MW-1	0.1903	n/a	2/20/2023	0.221	Yes	24	n/a	0.1172	0.03644	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-12	0.2219	n/a	2/22/2023	0.239	Yes	13	n/a	0.1188	0.04526	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-2	0.2565	n/a	2/20/2023	0.267	Yes	24	n/a	0.1456	0.05538	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-7	0.2155	n/a	2/21/2023	0.216	Yes	17	n/a	0.1848	0.01443	0	None	No	0.001504	Param Intra 1 of 2

Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	MW-1	243	n/a	2/20/2023	151	No	23	n/a	n/a	n/a	0	n/a	n/a	0.003415	NP Intra (normality) 1 of 2	
Calcium (mg/L)	MW-10	280.7	n/a	2/22/2023	152	No	16	n/a	184.7	44.65	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-11	423.3	n/a	2/21/2023	314	No	16	n/a	372.6	23.56	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-12	402.8	n/a	2/22/2023	304	No	16	n/a	355.6	21.98	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-2	216.2	n/a	2/20/2023	160	No	23	n/a	174.2	20.8	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-3	420.1	n/a	2/20/2023	210	No	23	n/a	300	59.54	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-4	388.9	n/a	2/21/2023	232	No	23	n/a	304.8	41.68	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-7	345.2	n/a	2/21/2023	286	No	16	n/a	85434	15683	0	None	x^2	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-8	341.3	n/a	2/21/2023	327	No	16	n/a	303.1	17.76	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-1	0.1903	n/a	2/20/2023	0.221	Yes	24	n/a	0.1172	0.03644	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-10	0.3437	n/a	2/22/2023	0.132	No	17	n/a	0.1839	0.0751	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-11	0.1477	n/a	2/21/2023	0.129	No	17	n/a	0.09621	0.0242	5.882	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-12	0.2219	n/a	2/22/2023	0.239	Yes	13	n/a	0.1188	0.04526	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-2	0.2565	n/a	2/20/2023	0.267	Yes	24	n/a	0.1456	0.05538	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-3	0.5975	n/a	2/20/2023	0.379	No	24	n/a	0.3299	0.1336	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-4	0.4243	n/a	2/21/2023	0.415	No	24	n/a	0.1114	0.03425	0	None	x^2	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-7	0.2155	n/a	2/21/2023	0.216	Yes	17	n/a	0.1848	0.01443	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-8	0.2349	n/a	2/21/2023	0.212	No	17	n/a	0.21	0.01171	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-1	1672	n/a	2/20/2023	1520	No	22	n/a	1461	104.1	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-10	1188	n/a	2/22/2023	581	No	16	n/a	807.1	176.9	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-11	2292	n/a	2/21/2023	1290	No	16	n/a	1592	325.4	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-12	2822	n/a	2/22/2023	2440	No	16	n/a	2315	235.6	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-2	1284	n/a	2/20/2023	767	No	23	n/a	997.8	141.7	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-3	3300	n/a	2/20/2023	2110	No	23	n/a	2451	421.1	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-4	3165	n/a	2/21/2023	1930	No	23	n/a	2511	324	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-7	1614	n/a	2/21/2023	1450	No	15	n/a	1324	132.3	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-8	1640	n/a	2/21/2023	1510	No	15	n/a	n/a	n/a	0	n/a	n/a	0.007533	NP Intra (normality) 1 of 2	
Total Dissolved Solids (mg/L)	MW-1	2530	n/a	2/20/2023	2280	No	22	n/a	2197	164	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-10	1925	n/a	2/22/2023	991	No	16	n/a	7.179	0.1783	0	None	ln(x)	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-11	3052	n/a	2/21/2023	2160	No	16	n/a	2649	187.2	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-12	4477	n/a	2/22/2023	3880	No	16	n/a	3598	408.9	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-2	2034	n/a	2/20/2023	1420	No	23	n/a	1643	193.7	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-3	5097	n/a	2/20/2023	3230	No	23	n/a	3729	678.1	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-4	4623	n/a	2/21/2023	3160	No	23	n/a	1.5e7	3201096	0	None	x^2	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-7	2598	n/a	2/21/2023	2220	No	16	n/a	6.3e16	2.6e16	0	None	x^5	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-8	2817	n/a	2/21/2023	2370	No	16	n/a	2573	113.3	0	None	No	0.001504	Param Intra 1 of 2	

Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/27/2023, 9:23 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	NBq Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron (mg/L)	MW-10	0.1015	n/a	2/22/2023	0.122	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	2/21/2023	0.104	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	2/22/2023	0.153	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	2/21/2023	50.4	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	2/22/2023	10.9	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	2/21/2023	6.12	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	2/21/2023	4.86	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	2/22/2023	6.67	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	2/21/2023	6.77	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	2/21/2023	6.72	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	2/21/2023	6.75	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/27/2023, 9:23 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	NBq Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron (mg/L)	MW-10	0.1015	n/a	2/22/2023	0.122	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	2/21/2023	0.104	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	2/22/2023	0.153	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-7	0.1015	n/a	2/21/2023	0.0645J	No	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-8	0.1015	n/a	2/21/2023	0.0609J	No	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-10	4.6	n/a	2/22/2023	2.77	No	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	2/21/2023	50.4	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	2/22/2023	10.9	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	2/21/2023	6.12	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	2/21/2023	4.86	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	2/22/2023	6.67	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	2/21/2023	6.77	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-12	6.35	4.51	2/22/2023	5.72	No	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	2/21/2023	6.72	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	2/21/2023	6.75	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/18/2023, 2:09 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.004867	144	124	Yes	27	37.04	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.002161	101	81	Yes	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01126	181	124	Yes	27	33.33	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	12.14	125	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.219	134	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-23.35	-100	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-12	0.02163	129	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-2 (bg)	0.01459	183	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01675	-154	-124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05083	145	87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04641	169	124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.04545	156	87	Yes	21	0	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/18/2023, 2:09 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.004867	144	124	Yes	27	37.04	n/a	n/a	0.01	NP
Boron (mg/L)	MW-10	-0.009517	-65	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.002161	101	81	Yes	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-12	0.004921	34	81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01126	181	124	Yes	27	33.33	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0.006729	119	124	No	27	29.63	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0004052	-61	-118	No	26	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-0.03183	-67	-124	No	27	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	12.14	125	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.219	134	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.144	-72	-124	No	27	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.07161	89	124	No	27	7.407	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.06041	-97	-124	No	27	3.704	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-7	-4.869	-73	-81	No	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-23.35	-100	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-1 (bg)	-0.003095	-33	-131	No	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-12	0.02163	129	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-2 (bg)	0.01459	183	131	Yes	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-3 (bg)	0.002778	21	131	No	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-4 (bg)	0.007162	85	131	No	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-7	0.001693	32	87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01675	-154	-124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-10	0.04029	87	87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05083	145	87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04641	169	124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	0.03075	30	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-4 (bg)	0.01607	93	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-7	-0.01489	-38	-87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.04545	156	87	Yes	21	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 12/6/2021, 10:45 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.00143	n/a	n/a	n/a	96	n/a	n/a	93.75	n/a	n/a	0.007269	NP Inter
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	96	n/a	n/a	83.33	n/a	n/a	0.007269	NP Inter
Barium (mg/L)	n/a	0.0165	n/a	n/a	n/a	96	n/a	n/a	0	n/a	n/a	0.007269	NP Inter
Beryllium (mg/L)	n/a	0.0121	n/a	n/a	n/a	94	n/a	n/a	84.04	n/a	n/a	0.008054	NP Inter
Cadmium (mg/L)	n/a	0.00598	n/a	n/a	n/a	94	n/a	n/a	45.74	n/a	n/a	0.008054	NP Inter
Chromium (mg/L)	n/a	0.0105	n/a	n/a	n/a	96	n/a	n/a	89.58	n/a	n/a	0.007269	NP Inter
Cobalt (mg/L)	n/a	0.49	n/a	n/a	n/a	94	n/a	n/a	26.6	n/a	n/a	0.008054	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	1.47	n/a	n/a	n/a	92	n/a	n/a	0	n/a	n/a	0.008924	NP Inter
Fluoride (mg/L)	n/a	0.63	n/a	n/a	n/a	100	n/a	n/a	0	n/a	n/a	0.005921	NP Inter
Lead (mg/L)	n/a	0.00108	n/a	n/a	n/a	95	n/a	n/a	95.79	n/a	n/a	0.007651	NP Inter
Lithium (mg/L)	n/a	0.419	n/a	n/a	n/a	96	n/a	n/a	0	n/a	n/a	0.007269	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	96	n/a	n/a	100	n/a	n/a	0.007269	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	96	n/a	n/a	97.92	n/a	n/a	0.007269	NP Inter
Selenium (mg/L)	n/a	0.0209	n/a	n/a	n/a	96	n/a	n/a	60.42	n/a	n/a	0.007269	NP Inter
Thallium (mg/L)	n/a	0.000226	n/a	n/a	n/a	96	n/a	n/a	96.88	n/a	n/a	0.007269	NP Inter

GORGAS BALF GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.0165	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	0.49	0.49
Combined Radium-226/228	pCi/L	1.47	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00108	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.0209	0.05
Thallium	mg/L	0.000226	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 2021.

Confidence Intervals Summary Table - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:33 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-12	0.06847	0.05414	0.01	Yes	8	0	None	x^2	0.01	Param.

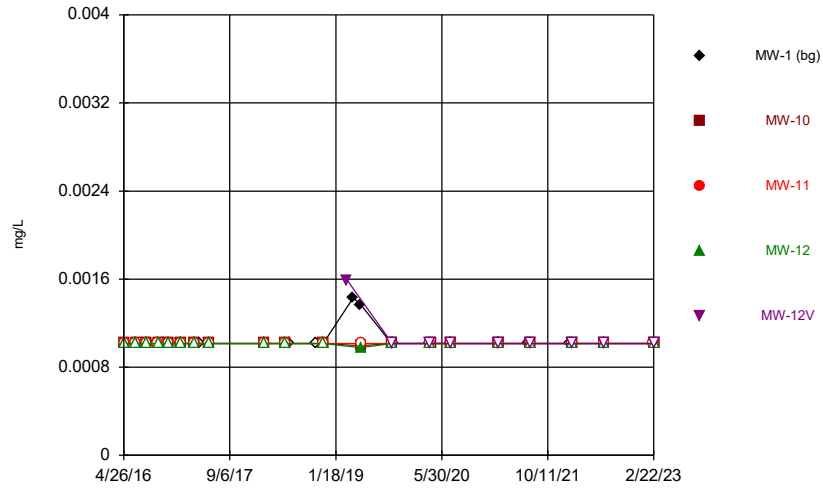
Confidence Intervals Summary Table - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MW-10	0.001955	0.0005027	0.01	No	8	12.5	None	No	0.01	Param.
Arsenic (mg/L)	MW-11	0.005	0.000834	0.01	No	8	37.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	MW-12	0.06847	0.05414	0.01	Yes	8	0	None	x^2	0.01	Param.
Arsenic (mg/L)	MW-7	0.001617	0.001398	0.01	No	8	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001656	0.00103	0.01	No	8	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MW-10	0.0245	0.0198	2	No	8	0	None	No	0.004	NP (normality)
Barium (mg/L)	MW-11	0.01615	0.014	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	MW-12	0.01309	0.01101	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.0147	0.01306	2	No	8	0	None	x^3	0.01	Param.
Barium (mg/L)	MW-8	0.01457	0.0136	2	No	8	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-10	0.001243	0.0006032	0.004	No	8	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MW-10	0.000203	0.00008	0.005	No	8	62.5	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-10	0.001015	0.00021	0.1	No	8	62.5	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-11	0.001015	0.000269	0.1	No	8	75	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-12	0.001015	0.00028	0.1	No	8	75	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-7	0.001015	0.00032	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-8	0.001015	0.00025	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-10	0.01969	0.003799	0.49	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-11	0.005	0.00025	0.49	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	MW-12	0.05358	0.0461	0.49	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.006127	0.003563	0.49	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.008278	0.006947	0.49	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-10	0.688	0.1247	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-11	0.951	0.665	5	No	8	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-12	1.46	0.9096	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-7	0.7205	0.291	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-8	2.19	0.398	5	No	8	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	MW-10	0.2443	0.1339	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-11	0.1403	0.09031	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-12	0.2578	0.1695	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-7	0.2435	0.1595	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-8	0.2308	0.1714	4	No	8	0	None	No	0.01	Param.
Lead (mg/L)	MW-10	0.000203	0.00008	0.015	No	8	75	None	No	0.004	NP (normality)
Lead (mg/L)	MW-11	0.00145	0.000203	0.015	No	8	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	MW-12	0.005	0.000178	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	MW-8	0.000203	0.000088	0.015	No	8	50	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-10	0.2374	0.1586	0.419	No	8	0	None	No	0.01	Param.
Lithium (mg/L)	MW-11	0.2938	0.2225	0.419	No	8	0	None	No	0.01	Param.
Lithium (mg/L)	MW-12	0.08739	0.06401	0.419	No	8	0	None	No	0.01	Param.
Lithium (mg/L)	MW-7	0.131	0.0907	0.419	No	8	0	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-8	0.163	0.1263	0.419	No	8	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-10	0.000203	0.00008	0.1	No	8	75	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-11	0.01	0.0013	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-12	0.01	0.000088	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-7	0.01	0.000846	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-8	0.0129	0.00031	0.1	No	8	37.5	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-10	0.00273	0.000611	0.05	No	8	50	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-12	0.001015	0.00051	0.05	No	8	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	MW-7	0.001015	0.000677	0.05	No	8	87.5	None	No	0.004	NP (NDs)
Thallium (mg/L)	MW-12	0.000203	0.0001	0.002	No	8	75	None	No	0.004	NP (normality)

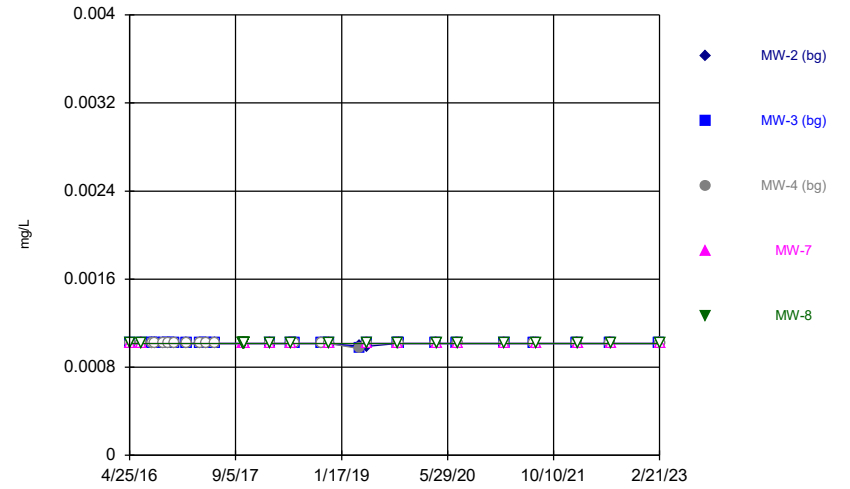
FIGURE A.

Time Series



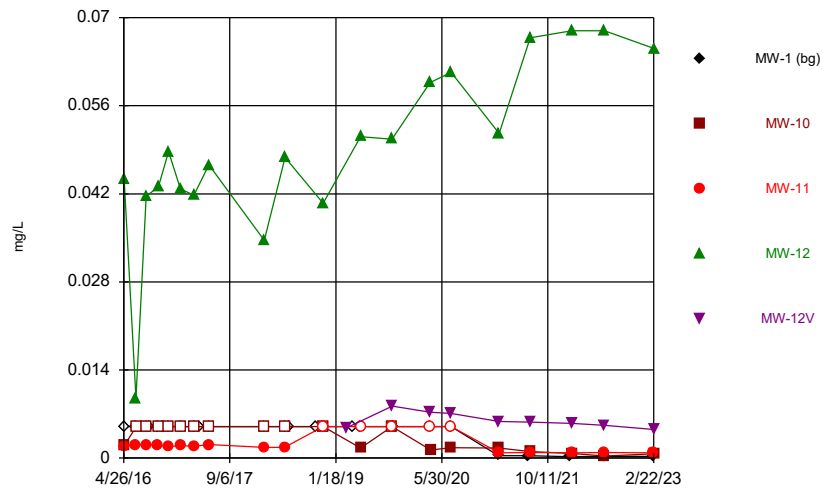
Constituent: Antimony Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



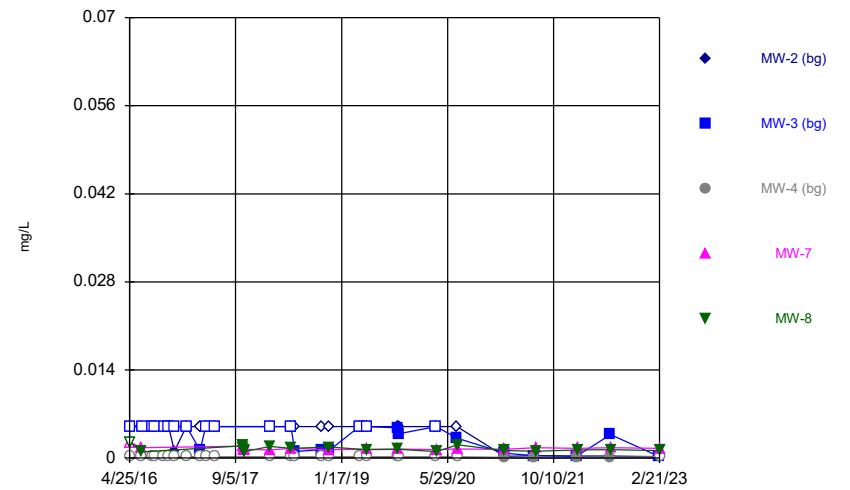
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



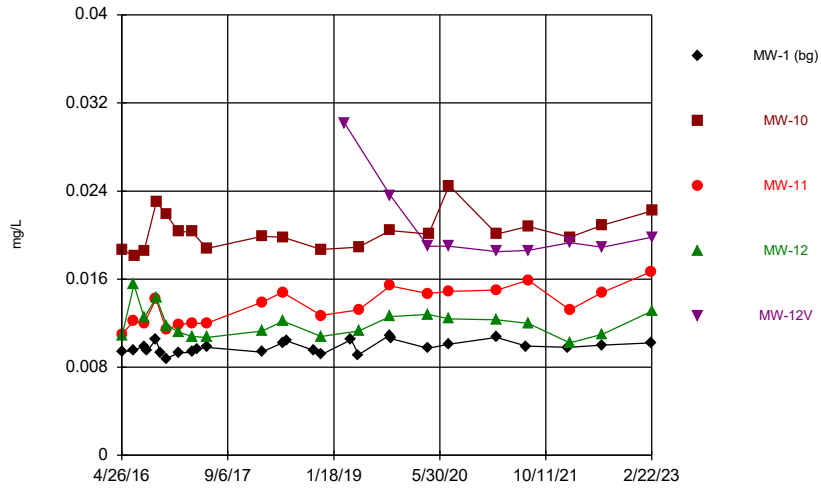
Constituent: Arsenic Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



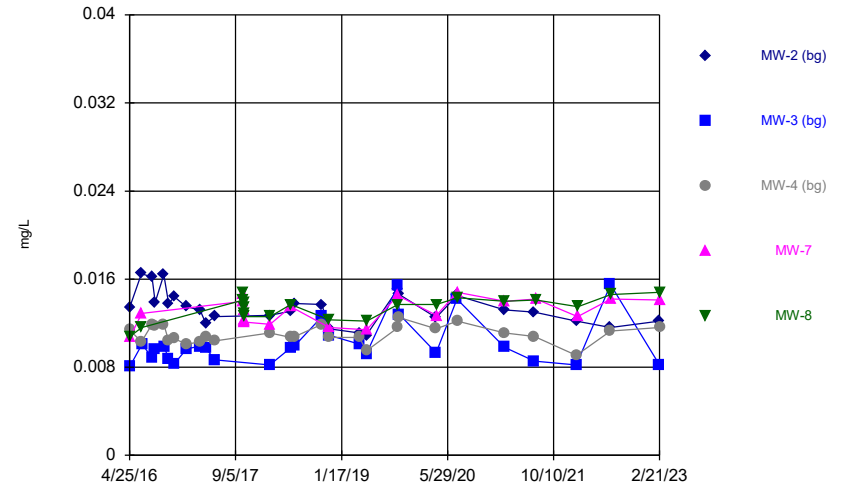
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



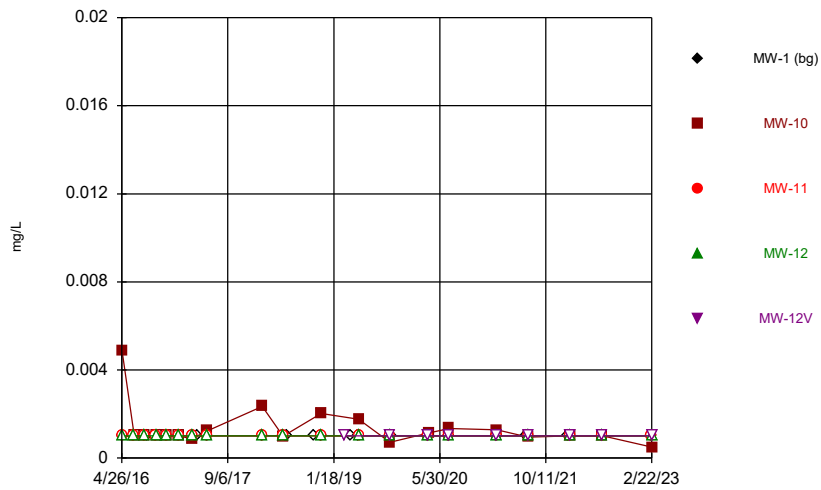
Constituent: Barium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



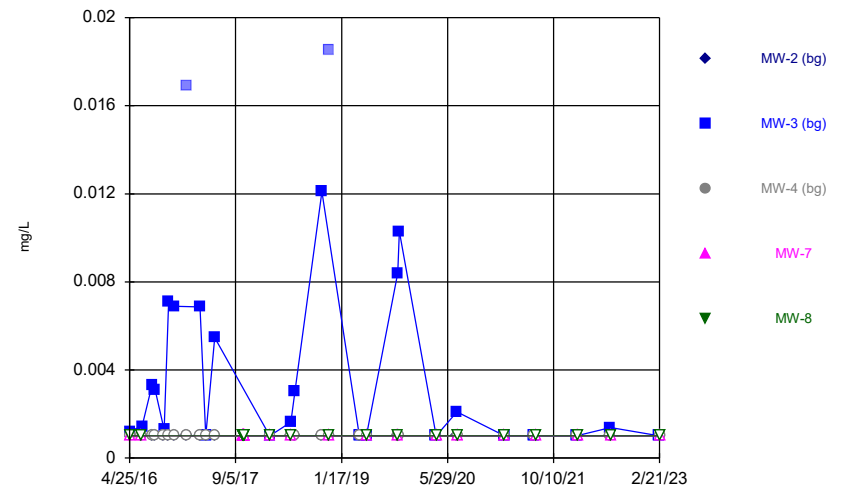
Constituent: Barium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



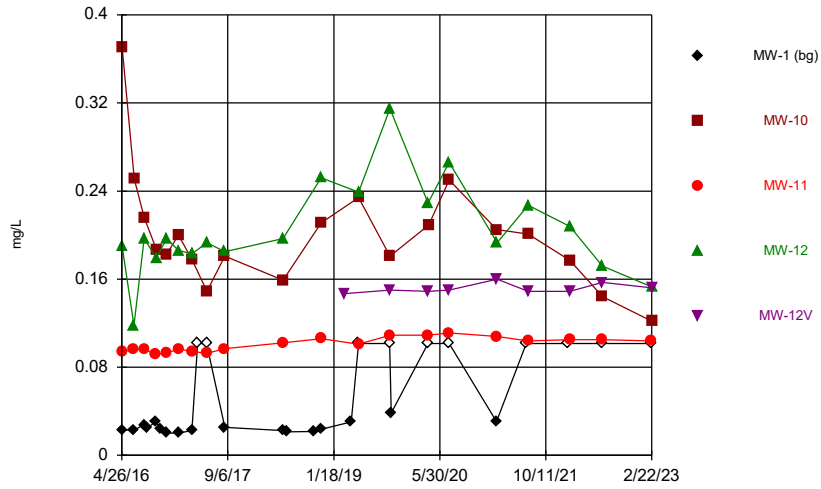
Constituent: Beryllium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



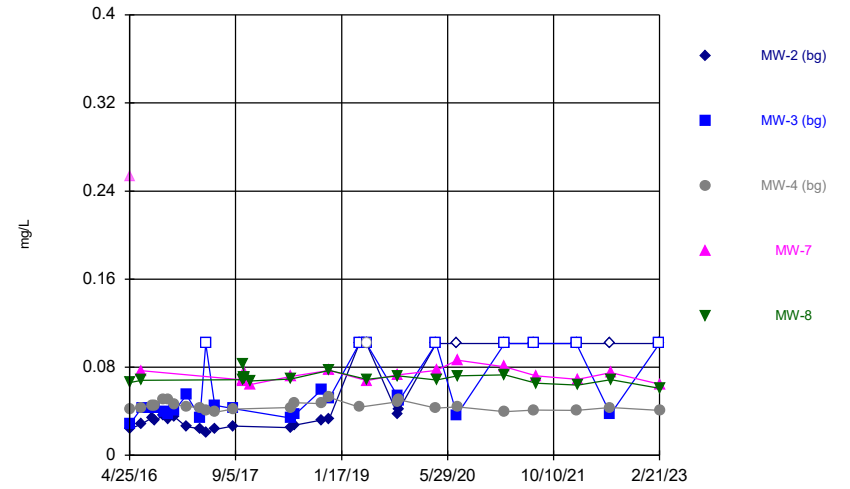
Constituent: Beryllium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



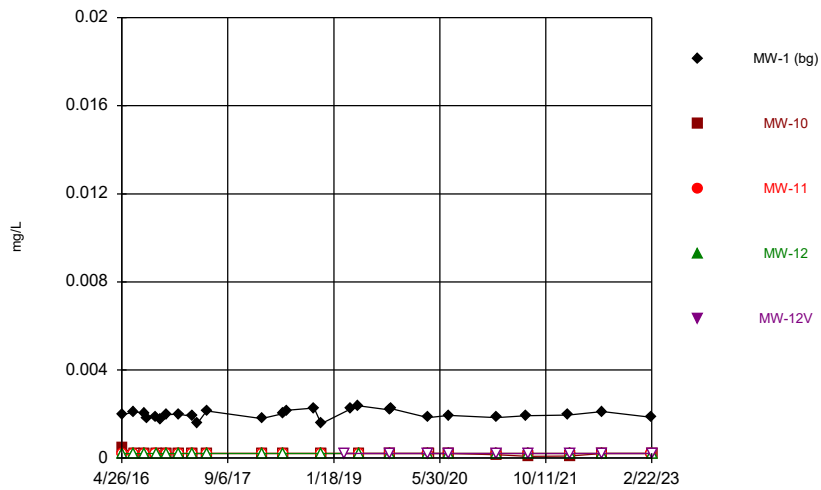
Constituent: Boron Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



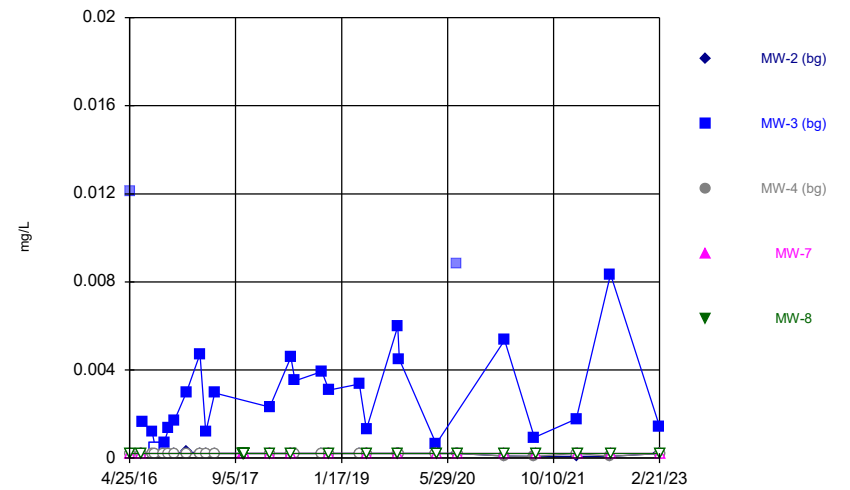
Constituent: Boron Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



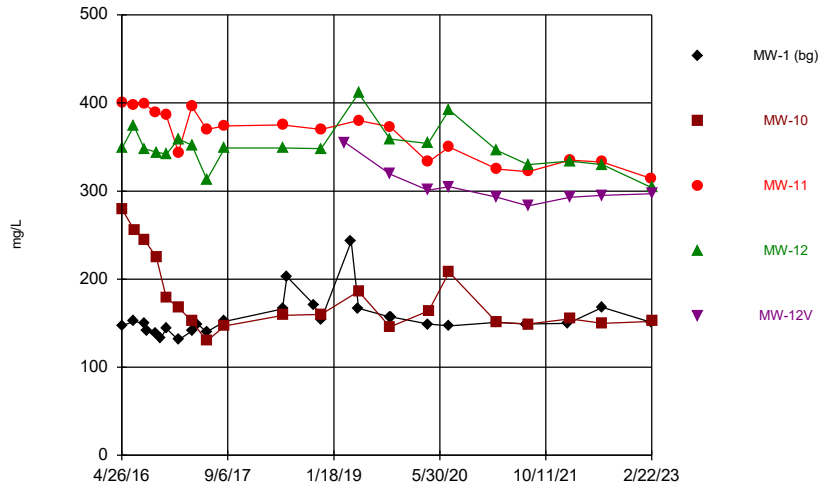
Constituent: Cadmium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



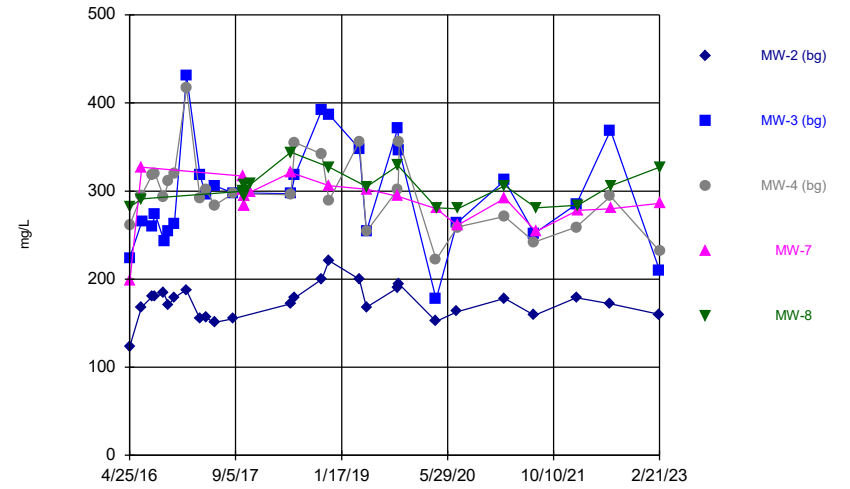
Constituent: Cadmium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



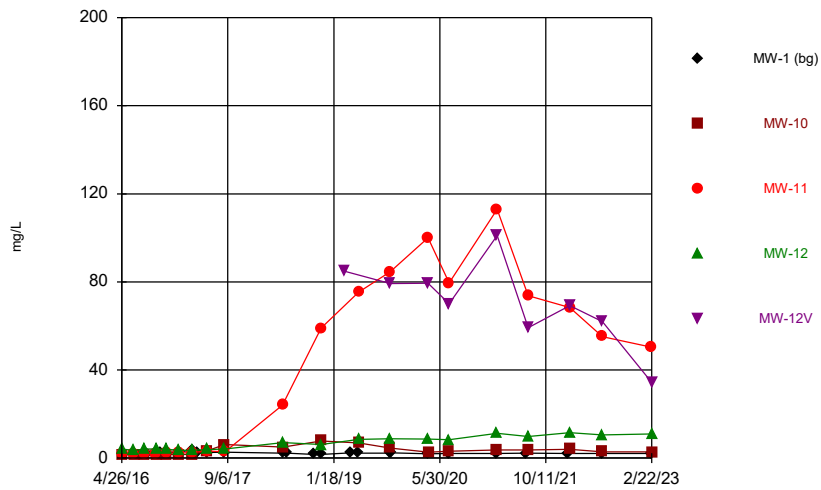
Constituent: Calcium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



Constituent: Calcium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

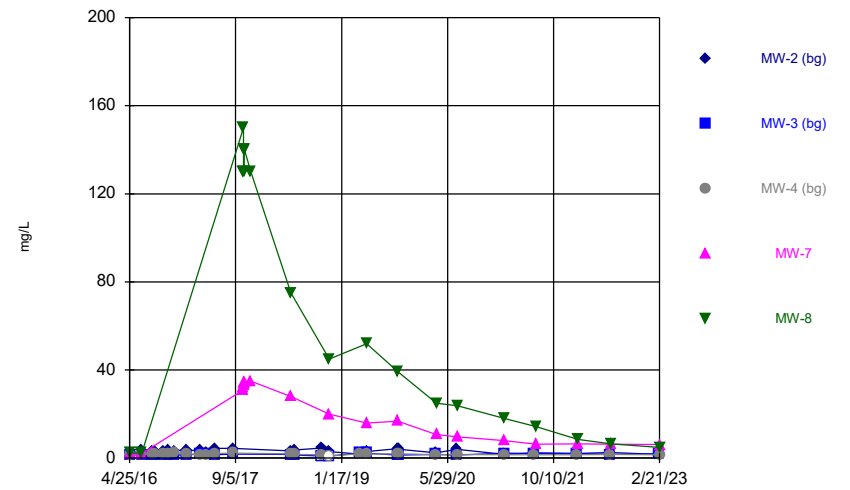
Time Series



Constituent: Chloride Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

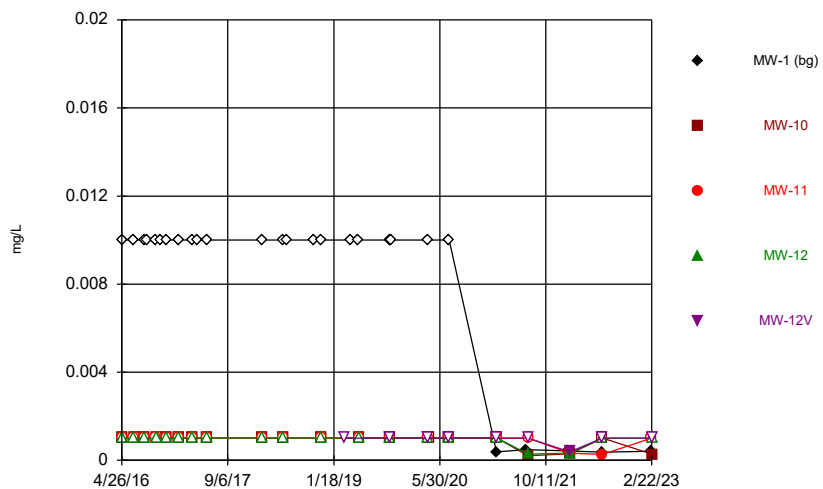
Hollow symbols indicate censored values.

Time Series



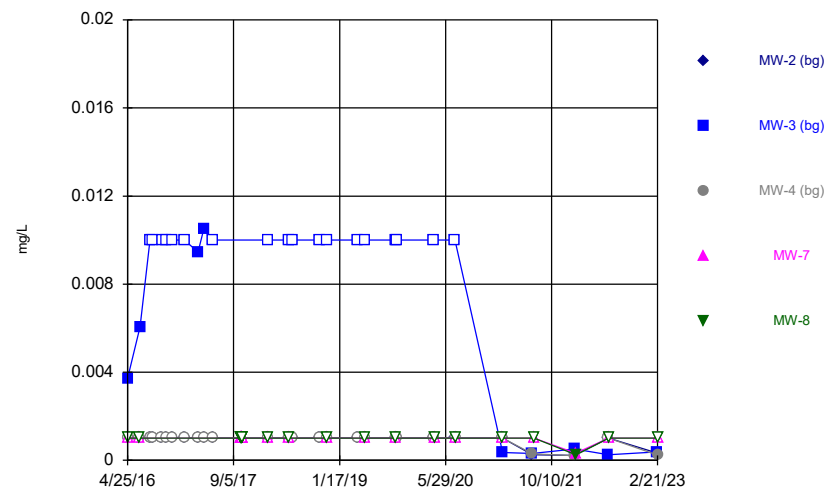
Constituent: Chloride Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



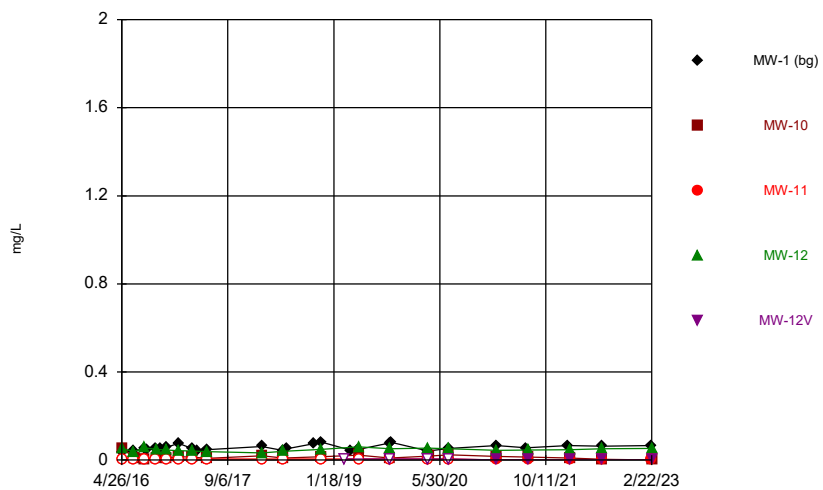
Constituent: Chromium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



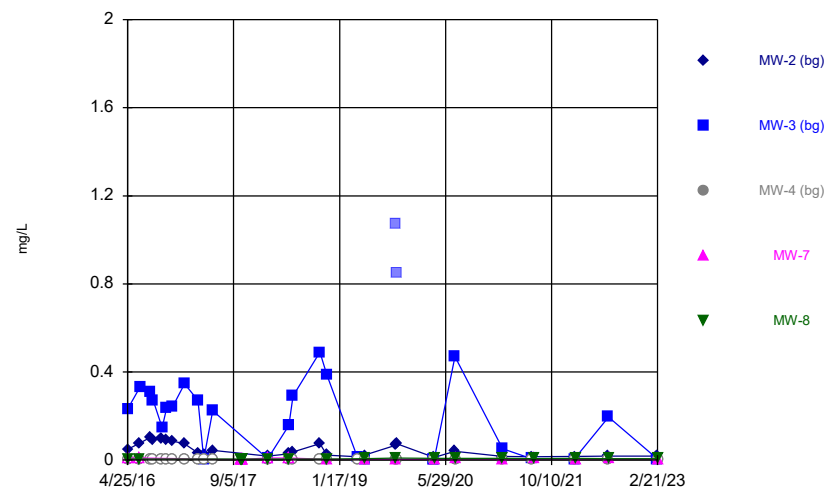
Constituent: Chromium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



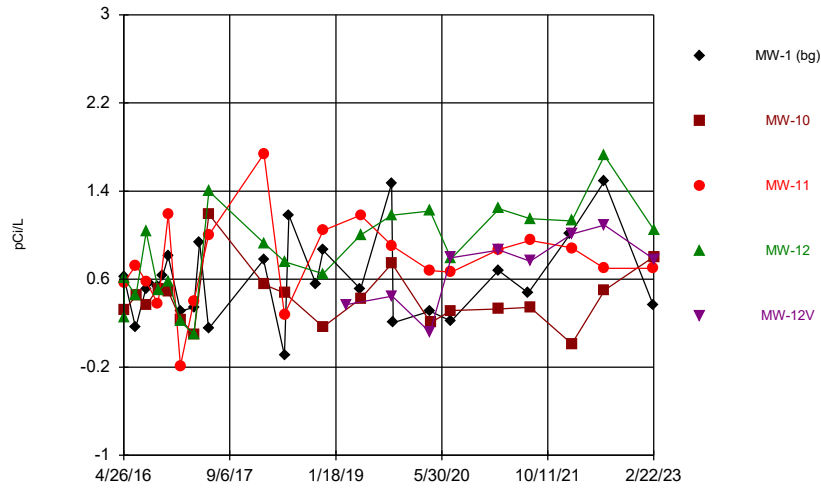
Constituent: Cobalt Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



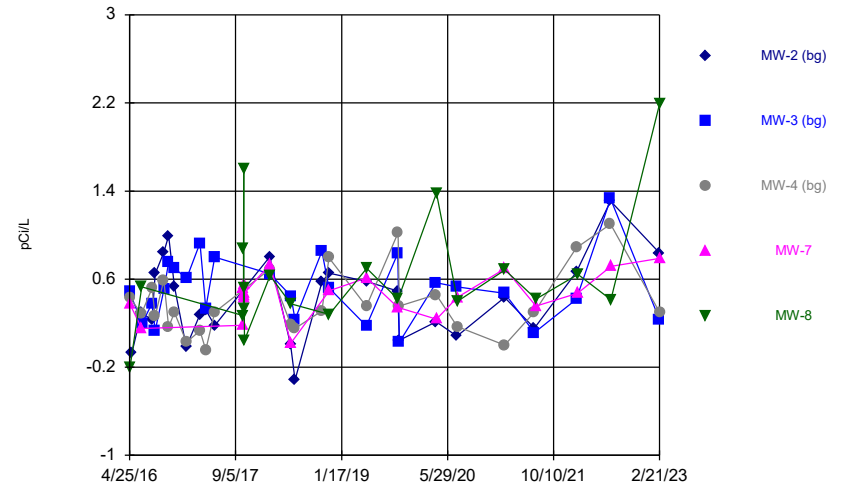
Constituent: Cobalt Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



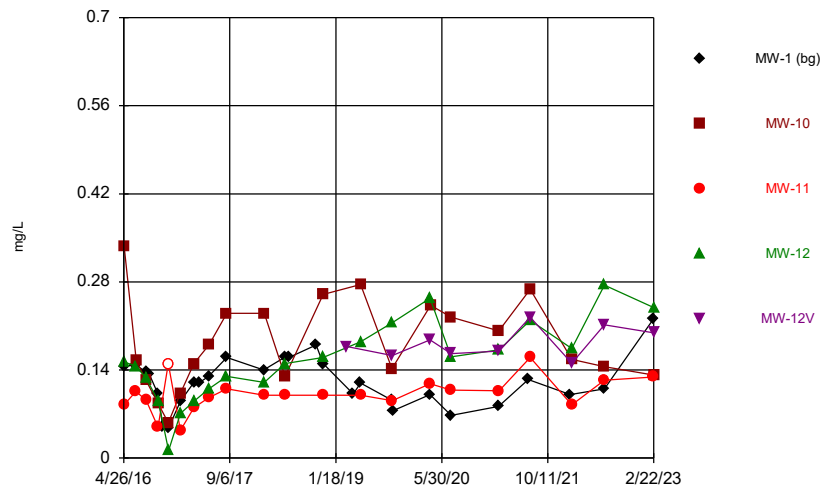
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



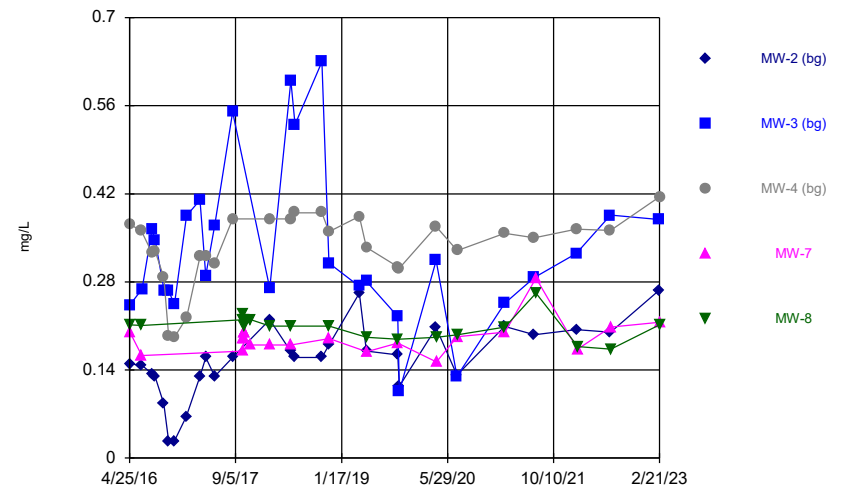
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



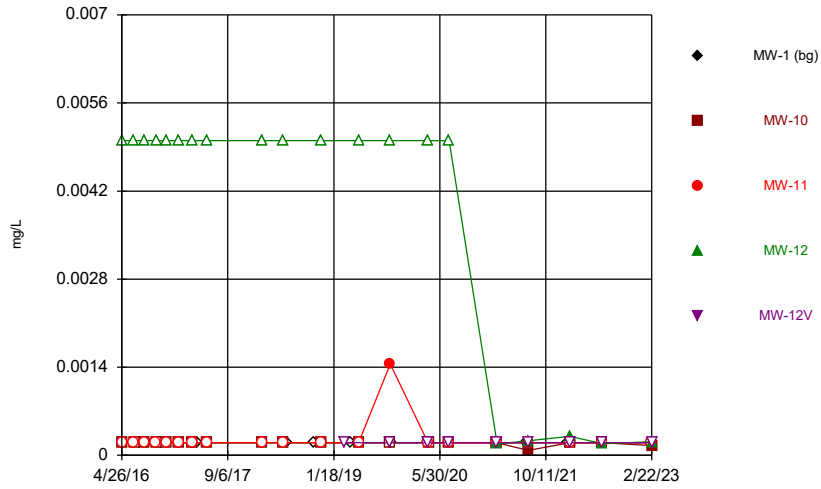
Constituent: Fluoride Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



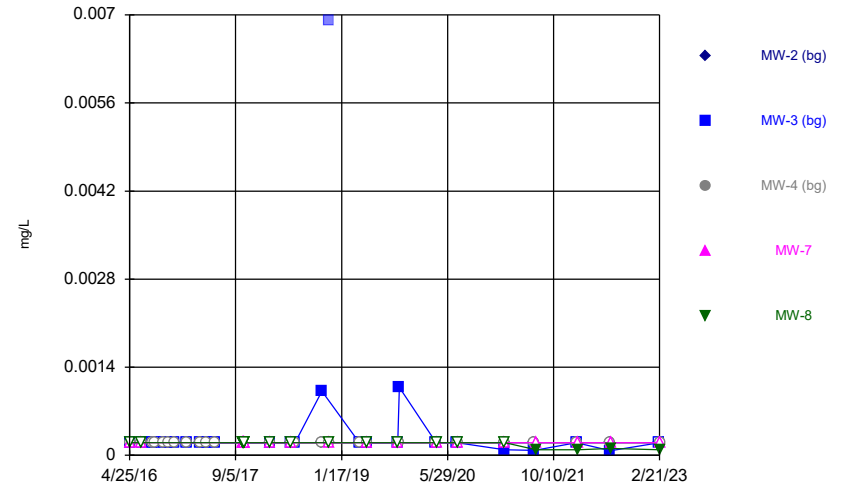
Constituent: Fluoride Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



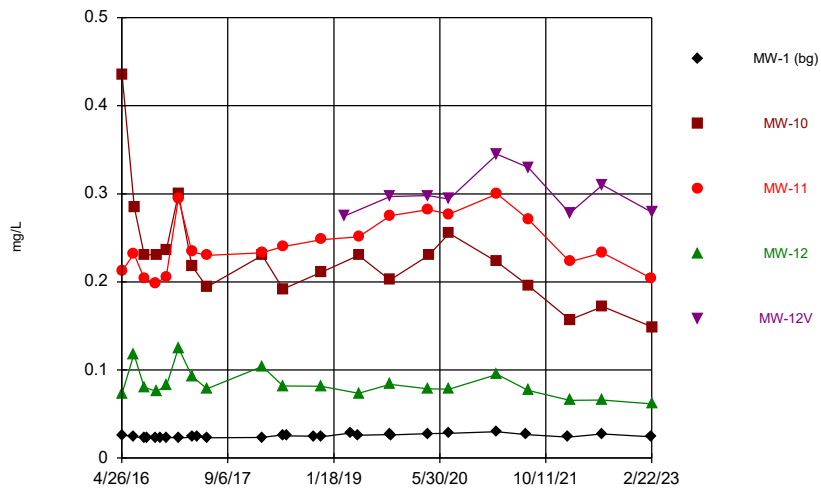
Constituent: Lead Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



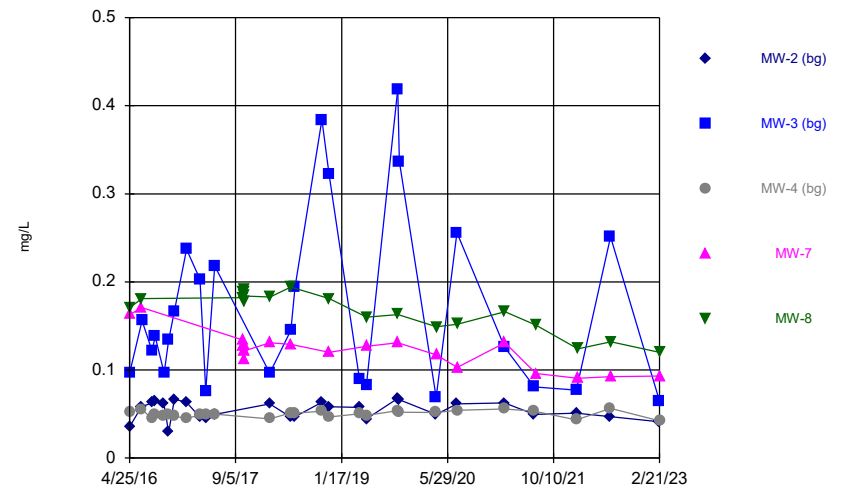
Constituent: Lead Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



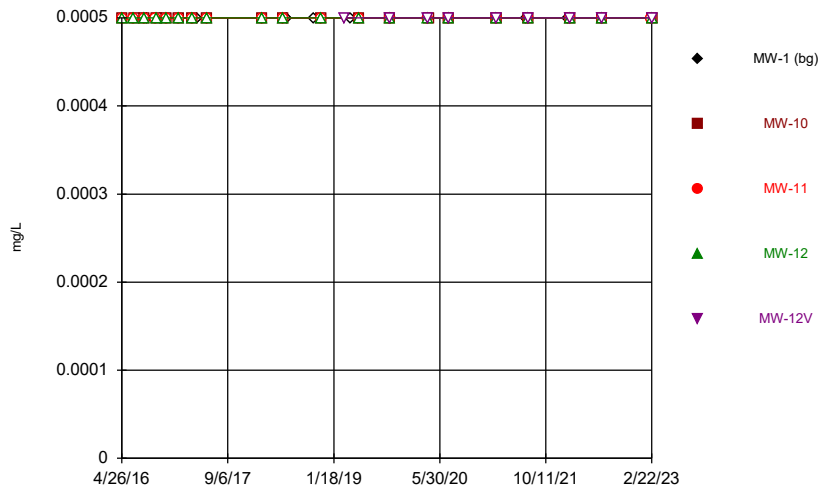
Constituent: Lithium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



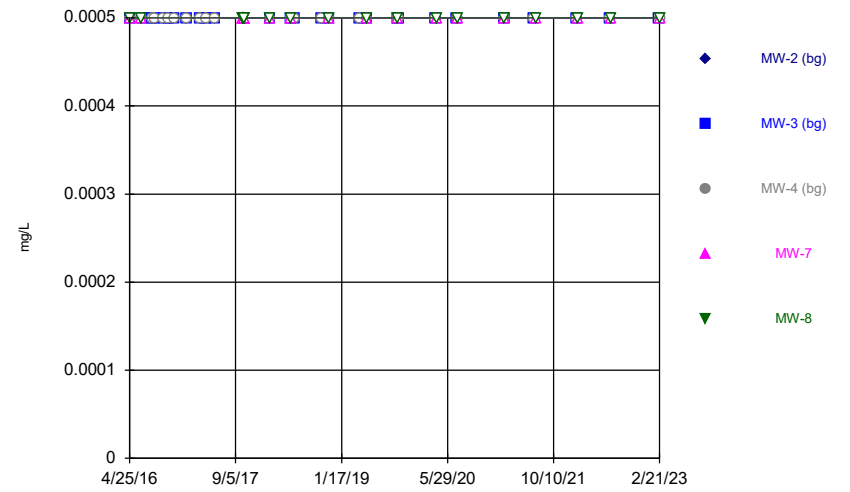
Constituent: Lithium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



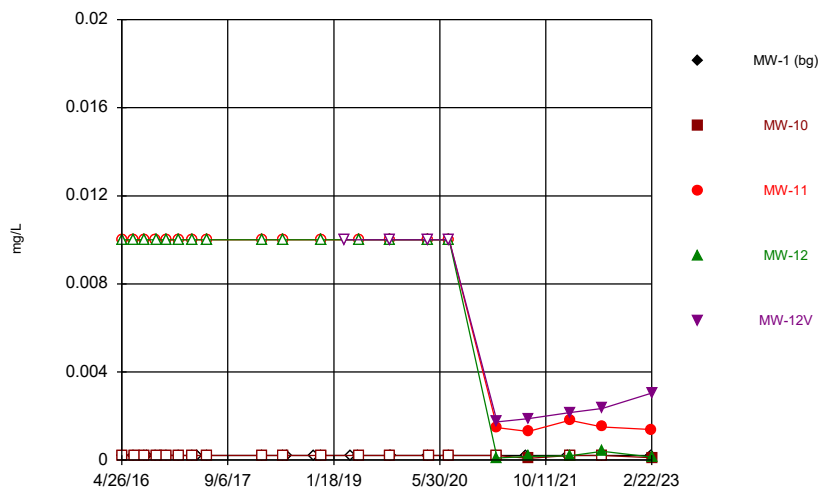
Constituent: Mercury Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



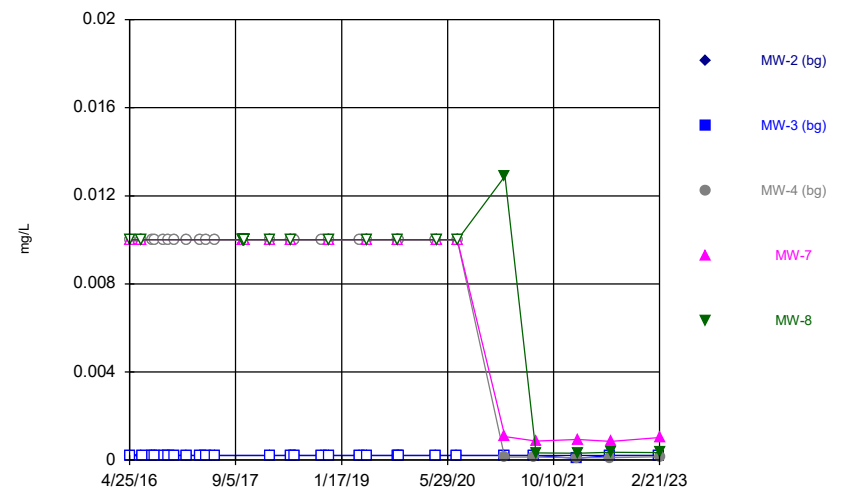
Constituent: Mercury Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



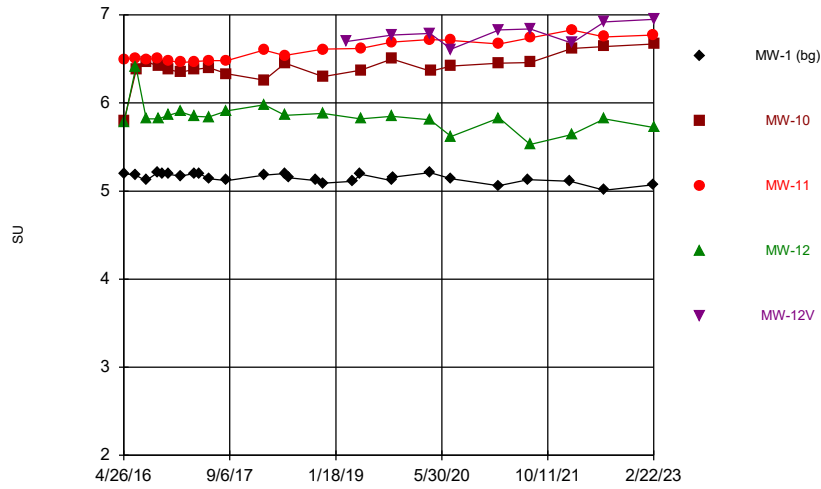
Constituent: Molybdenum Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



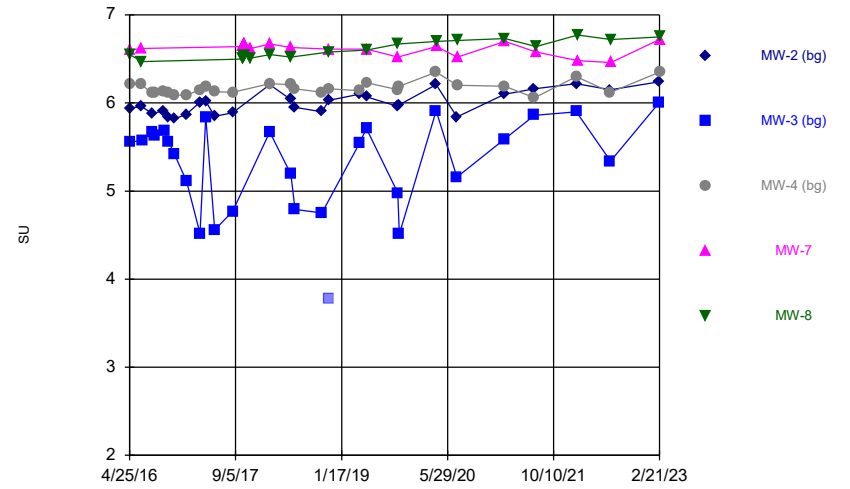
Constituent: Molybdenum Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



Constituent: pH Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

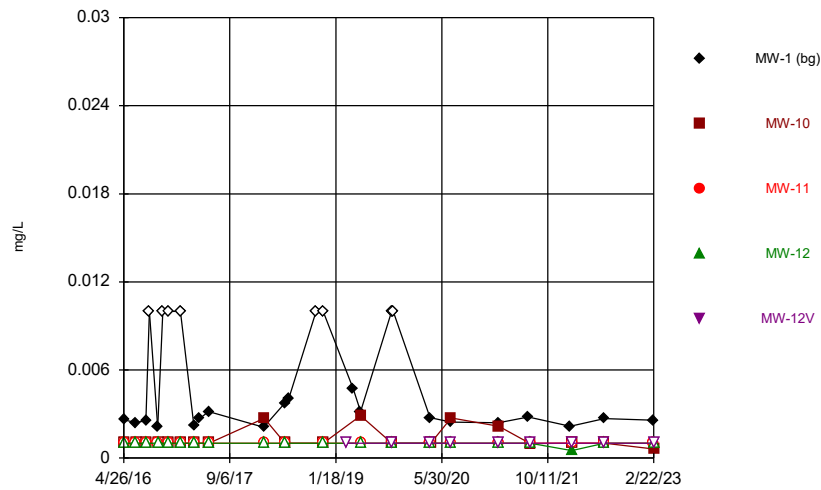
Time Series



Constituent: pH Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Hollow symbols indicate censored values.

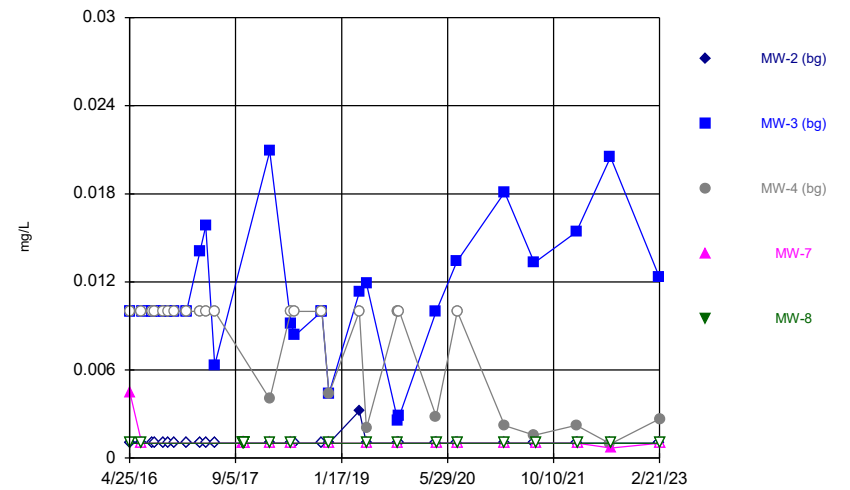
Time Series



Constituent: Selenium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

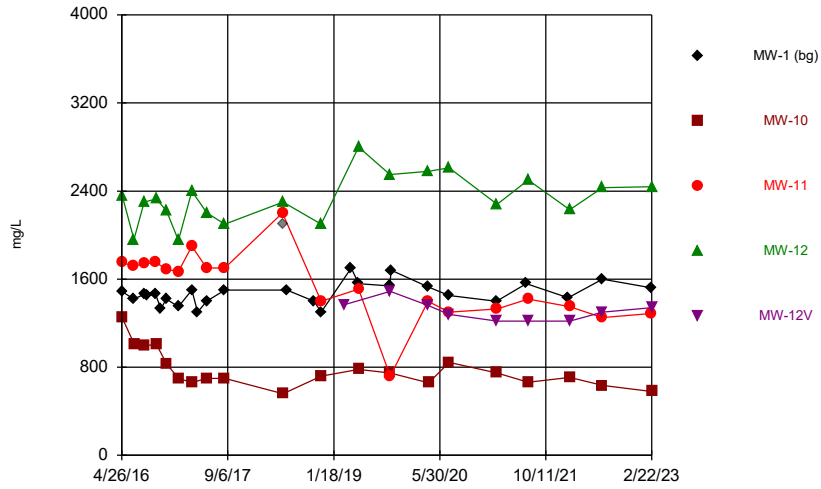
Hollow symbols indicate censored values.

Time Series



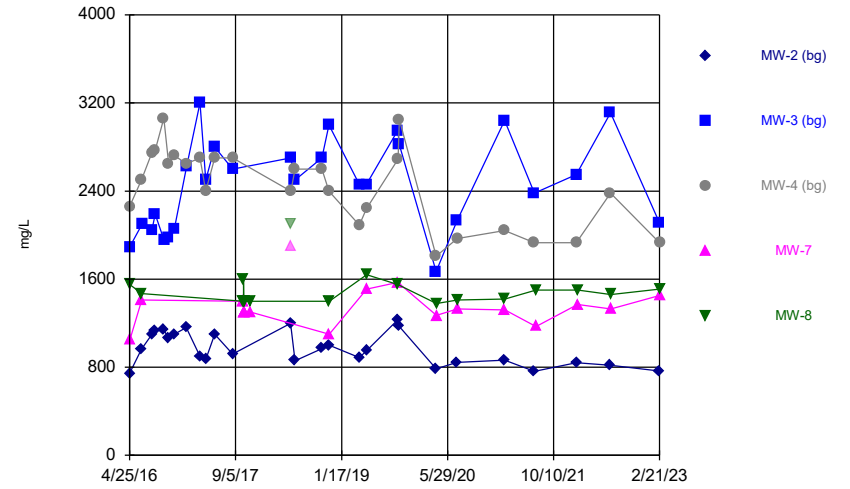
Constituent: Selenium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



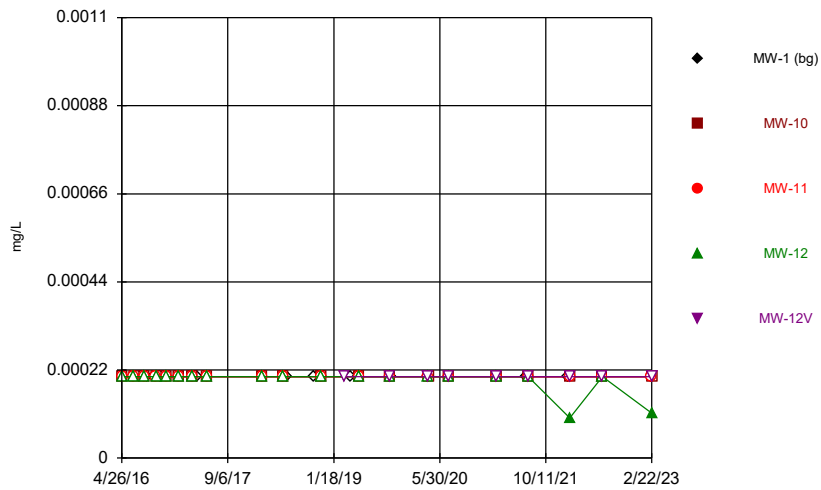
Constituent: Sulfate Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



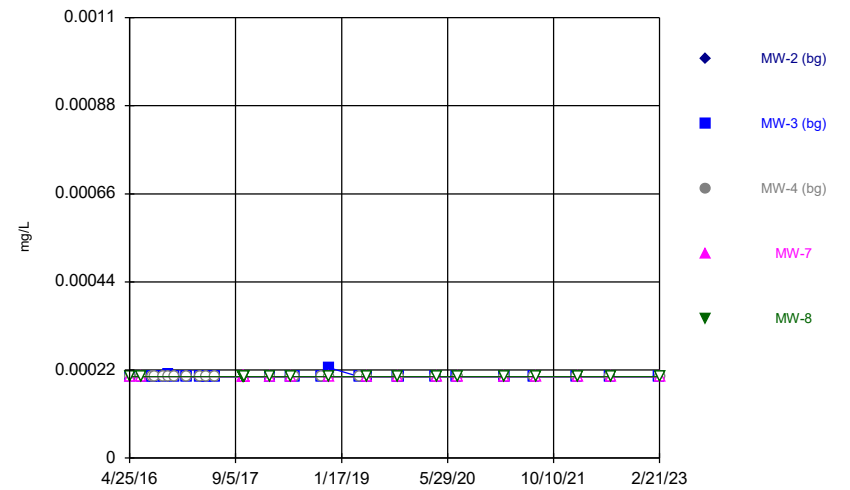
Constituent: Sulfate Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



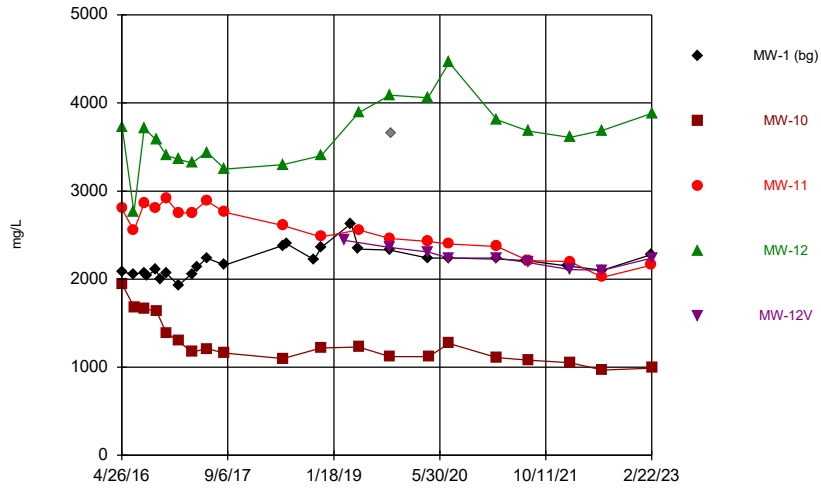
Constituent: Thallium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



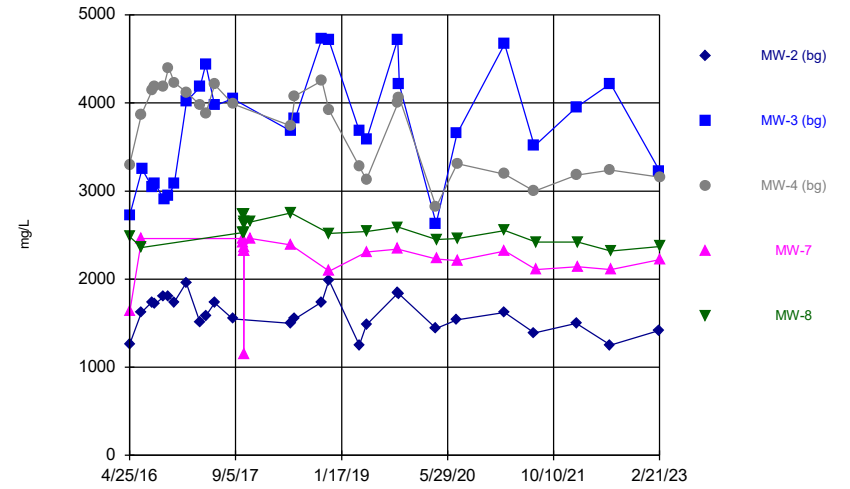
Constituent: Thallium Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:18 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.001015		<0.001015		
4/27/2016		<0.001015			
4/28/2016				<0.001015	
6/20/2016	<0.001015				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	<0.001015				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.001015				
10/3/2016	<0.001015				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.001015				
11/21/2016	<0.001015	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.001015	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		<0.001015	<0.001015	<0.001015	
3/22/2017	<0.001015				
4/18/2017	<0.001015				
5/30/2017	<0.001015		<0.001015		
5/31/2017		<0.001015		<0.001015	
2/13/2018	<0.001015				
2/14/2018			<0.001015		
2/15/2018		<0.001015		<0.001015	
5/22/2018	<0.001015		<0.001015		
5/24/2018		<0.001015		<0.001015	
6/12/2018	<0.001015				
10/17/2018	<0.001015				
11/19/2018	<0.001015	<0.001015		<0.001015	
11/20/2018			<0.001015		
3/12/2019					0.00159 (J)
4/10/2019	0.00143 (J)				
5/14/2019	0.00137 (J)				
5/15/2019		0.000996 (J)	<0.001015	0.000977 (J)	
10/8/2019	<0.001015				
10/9/2019		<0.001015		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.001015				
4/6/2020	<0.001015		<0.001015	<0.001015	<0.001015
4/8/2020		<0.001015			
7/13/2020	<0.001015		<0.001015	<0.001015	<0.001015
7/14/2020		<0.001015			
2/22/2021	<0.001015				
2/23/2021		<0.001015			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	<0.001015				
7/20/2021		<0.001015		<0.001015	<0.001015
7/21/2021			<0.001015		
1/25/2022	<0.001015				
2/1/2022		<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.001015		<0.001015	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	<0.001015				
2/21/2023			<0.001015		
2/22/2023		<0.001015		<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	<0.001015	<0.001015		
4/27/2016				<0.001015	<0.001015
6/20/2016	<0.001015		<0.001015		
6/21/2016				<0.001015	<0.001015
6/22/2016		<0.001015			
8/8/2016	<0.001015				
8/9/2016		<0.001015	<0.001015		
8/24/2016	<0.001015	<0.001015	<0.001015		
10/3/2016	<0.001015		<0.001015		
10/4/2016		<0.001015			
10/26/2016	<0.001015	<0.001015	<0.001015		
11/21/2016	<0.001015	<0.001015	<0.001015		
1/17/2017	<0.001015				
1/18/2017		<0.001015	<0.001015		
3/22/2017	<0.001015	<0.001015	<0.001015		
4/18/2017	<0.001015	<0.001015	<0.001015		
5/31/2017	<0.001015	<0.001015	<0.001015		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.001015	<0.001015	<0.001015
5/24/2018		<0.001015			
6/12/2018	<0.001015	<0.001015	<0.001015		
10/17/2018	<0.001015	<0.001015	<0.001015		
11/19/2018	<0.001015	<0.001015	<0.001015		
11/20/2018				<0.001015	<0.001015
4/10/2019	0.000993 (J)	0.000978 (J)	0.00097 (J)		
5/14/2019	0.000989 (J)	<0.001015	<0.001015		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	<0.001015		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.001015		
10/16/2019	<0.001015	<0.001015	<0.001015		
4/6/2020	<0.001015	<0.001015	<0.001015		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	<0.001015			
7/14/2020			<0.001015	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	<0.001015	<0.001015		
2/23/2021				<0.001015	<0.001015
7/12/2021	<0.001015	<0.001015	<0.001015		
7/20/2021				<0.001015	<0.001015
1/25/2022	<0.001015	<0.001015	<0.001015		
1/31/2022				<0.001015	
2/1/2022					<0.001015
7/5/2022	<0.001015	<0.001015	<0.001015		

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.001015	<0.001015
2/20/2023	<0.001015	<0.001015			
2/21/2023			<0.001015	<0.001015	<0.001015

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.005		0.00189 (J)		
4/27/2016		0.00196 (J)			
4/28/2016				0.0444	
6/20/2016	<0.005				
6/22/2016			0.00213 (J)	0.00953	
6/23/2016		<0.005			
8/8/2016	<0.005				
8/9/2016			0.0021 (J)		
8/10/2016		<0.005		0.0416	
8/24/2016	<0.005				
10/3/2016	<0.005				
10/4/2016			0.00206 (J)		
10/5/2016		<0.005		0.0431	
10/26/2016	<0.005				
11/21/2016	<0.005	<0.005	0.00182 (J)		
11/22/2016				0.0487	
1/17/2017	<0.005	<0.005	0.00201 (J)		
1/18/2017				0.0428	
3/21/2017		<0.005	0.00183 (J)	0.0418	
3/22/2017	<0.005				
4/18/2017	<0.005				
5/30/2017	<0.005		0.00214 (J)		
5/31/2017		<0.005		0.0466	
2/13/2018	<0.005				
2/14/2018			0.00171 (J)		
2/15/2018		<0.005		0.0346	
5/22/2018	<0.005		0.00168 (J)		
5/24/2018		<0.005		0.0478	
6/12/2018	<0.005				
10/17/2018	<0.005				
11/19/2018	<0.005	<0.005		0.0405	
11/20/2018			<0.005		
3/12/2019					0.00486 (J)
4/10/2019	<0.005				
5/14/2019	<0.005				
5/15/2019		0.00162 (J)	<0.005	0.0511	
10/8/2019	<0.005				
10/9/2019		<0.005		0.0507	
10/10/2019			<0.005		0.00827
10/16/2019	<0.005				
4/6/2020	<0.005		<0.005	0.0597	0.00731
4/8/2020		0.0013 (J)			
7/13/2020	<0.005		<0.005	0.0613	0.0071
7/14/2020		0.00164 (J)			
2/22/2021	0.000403				
2/23/2021		0.0016			
2/24/2021			0.000834	0.0516	0.00584
7/12/2021	0.00036				
7/20/2021		0.00102		0.0668	0.00573
7/21/2021			0.0009		
1/25/2022	0.00025				
2/1/2022		0.00073	0.00085	0.0679	0.00551

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.000281		0.000881	0.0679	0.0052
7/6/2022		0.000348			
2/20/2023	0.000275				
2/21/2023			0.000859		
2/22/2023		0.000692		0.0651	0.00455

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.005	<0.005	<0.000203		
4/27/2016				<0.005	<0.005
6/20/2016	<0.005		<0.000203		
6/21/2016				0.00165 (J)	0.00101 (J)
6/22/2016		<0.005			
8/8/2016	<0.005				
8/9/2016		<0.005	<0.000203		
8/24/2016	<0.005	<0.005	<0.000203		
10/3/2016	<0.005		<0.000203		
10/4/2016		<0.005			
10/26/2016	<0.005	<0.005	<0.000203		
11/21/2016	0.00111 (J)	<0.005	<0.000203		
1/17/2017	<0.005				
1/18/2017		<0.005	<0.000203		
3/22/2017	<0.005	0.00122 (J)	<0.000203		
4/18/2017	<0.005	<0.005	<0.000203		
5/31/2017	<0.005	<0.005	<0.000203		
10/12/2017				0.00188 (J)	0.00197 (J)
10/13/2017				0.00181 (J)	0.00159 (J)
10/14/2017				0.00127 (J)	0.00126 (J)
10/15/2017				0.00144 (J)	0.00106 (J)
10/16/2017				0.00139 (J)	0.00106 (J)
10/17/2017				0.00138 (J)	0.00103 (J)
2/13/2018	<0.005	<0.005	<0.000203		
2/14/2018				0.00131 (J)	0.00185 (J)
5/22/2018	<0.005				
5/23/2018			<0.000203	0.00155 (J)	0.00157 (J)
5/24/2018		<0.005			
6/12/2018	<0.005	0.00103 (J)	<0.000203		
10/17/2018	<0.005	0.00133 (J)	<0.000203		
11/19/2018	<0.005	0.0012 (J)	<0.000203		
11/20/2018				0.00133 (J)	0.00173 (J)
4/10/2019	<0.005	<0.005	<0.000203		
5/14/2019	<0.005	<0.005	<0.000203		
5/15/2019				0.00138 (J)	0.00136 (J)
10/8/2019	<0.005	0.0048 (J)		0.00145 (J)	
10/9/2019					0.00142 (J)
10/10/2019			<0.000203		
10/16/2019	<0.005	0.00389 (J)	<0.000203		
4/6/2020	<0.005	<0.005	<0.000203		
4/8/2020				0.00136 (J)	0.00102 (J)
7/13/2020	<0.005	0.00316 (J)			
7/14/2020			<0.000203	0.00147 (J)	
7/15/2020					0.00212 (J)
2/22/2021	0.000295	0.000789	0.000125 (J)		
2/23/2021				0.00141	0.00117
7/12/2021	0.00036	0.00038	0.00012 (J)		
7/20/2021				0.00164	0.00111
1/25/2022	0.00033	0.00027	9E-05 (J)		
1/31/2022				0.00156	
2/1/2022					0.00131
7/5/2022	0.00035	0.00374	0.000118 (J)		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.00164	0.00136
2/20/2023	0.000243	0.000224			
2/21/2023			<0.000203	0.00153	0.00119

Time Series

Constituent: Barium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.00941 (J)		0.011		
4/27/2016		0.0187			
4/28/2016				0.0109	
6/20/2016	0.00951 (J)				
6/22/2016			0.0122	0.0155	
6/23/2016		0.0181			
8/8/2016	0.00991 (J)				
8/9/2016			0.012		
8/10/2016		0.0186		0.0125	
8/24/2016	0.00949 (J)				
10/3/2016	0.0105				
10/4/2016			0.0142		
10/5/2016		0.023		0.0143	
10/26/2016	0.00931 (J)				
11/21/2016	0.00879 (J)	0.0219	0.0114		
11/22/2016				0.0118	
1/17/2017	0.00929 (J)	0.0203	0.0119		
1/18/2017				0.0112	
3/21/2017		0.0203	0.012	0.0108	
3/22/2017	0.00938 (J)				
4/18/2017	0.00964 (J)				
5/30/2017	0.00982 (J)		0.012		
5/31/2017		0.0188		0.0107	
2/13/2018	0.00937 (J)				
2/14/2018			0.0139		
2/15/2018		0.0199		0.0113	
5/22/2018	0.0102		0.0148		
5/24/2018		0.0198		0.0122	
6/12/2018	0.0104				
10/17/2018	0.00952 (J)				
11/19/2018	0.00915 (J)	0.0187		0.0108	
11/20/2018			0.0127		
3/12/2019					0.0301
4/10/2019	0.0105				
5/14/2019	0.00913 (J)				
5/15/2019		0.0189	0.0132	0.0113	
10/8/2019	0.0109				
10/9/2019		0.0204		0.0126	
10/10/2019			0.0154		0.0236
10/16/2019	0.0106				
4/6/2020	0.00971 (J)		0.0147	0.0128	0.019
4/8/2020		0.0201			
7/13/2020	0.0101		0.0149	0.0124	0.019
7/14/2020		0.0245			
2/22/2021	0.0107				
2/23/2021		0.0201			
2/24/2021			0.015	0.0123	0.0185
7/12/2021	0.00991				
7/20/2021		0.0208		0.012	0.0186
7/21/2021			0.0159		
1/25/2022	0.0098				
2/1/2022		0.0198	0.0132	0.0102	0.0193

Time Series

Constituent: Barium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.01		0.0148	0.011	0.0189
7/6/2022		0.0209			
2/20/2023	0.0102				
2/21/2023			0.0167		
2/22/2023		0.0222		0.0131	0.0198

Time Series

Constituent: Barium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0134	0.00803 (J)	0.0114		
4/27/2016				0.0107	0.0108
6/20/2016	0.0165		0.0103		
6/21/2016				0.0129	0.0116
6/22/2016		0.0101			
8/8/2016	0.0162				
8/9/2016		0.00889 (J)	0.0119		
8/24/2016	0.0139	0.00962 (J)	0.0118		
10/3/2016	0.0164		0.0119		
10/4/2016		0.00984 (J)			
10/26/2016	0.0138	0.00878 (J)	0.0104		
11/21/2016	0.0144	0.00833 (J)	0.0106		
1/17/2017	0.0135				
1/18/2017		0.00966 (J)	0.0101		
3/22/2017	0.0132	0.00991 (J)	0.0103		
4/18/2017	0.012	0.00976 (J)	0.0107		
5/31/2017	0.0126	0.00866 (J)	0.0104		
10/12/2017				0.014	0.0141
10/13/2017				0.0147	0.0148
10/14/2017				0.0123	0.0134
10/15/2017				0.0132	0.0139
10/16/2017				0.0122	0.0129
10/17/2017				0.0121	0.0126
2/13/2018	0.0127	0.00821 (J)	0.0111		
2/14/2018				0.0119	0.0126
5/22/2018	0.0131				
5/23/2018			0.0107	0.0135	0.0137
5/24/2018		0.00977 (J)			
6/12/2018	0.0138	0.00997 (J)	0.0108		
10/17/2018	0.0137	0.0126	0.0119		
11/19/2018	0.0115	0.0109	0.0107		
11/20/2018				0.0116	0.0123
4/10/2019	0.0111	0.0101	0.0107		
5/14/2019	0.0109	0.00922 (J)	0.00949 (J)		
5/15/2019				0.0114	0.0122
10/8/2019	0.0151	0.0154		0.0145	
10/9/2019					0.0137
10/10/2019			0.0116		
10/16/2019	0.0146	0.0128	0.0125		
4/6/2020	0.0125	0.00931 (J)	0.0115		
4/8/2020				0.0127	0.0137
7/13/2020	0.0145	0.0142			
7/14/2020			0.0122	0.0148	
7/15/2020					0.0143
2/22/2021	0.0132	0.00981	0.0111		
2/23/2021				0.014	0.014
7/12/2021	0.013	0.00857	0.0108		
7/20/2021				0.0142	0.0141
1/25/2022	0.0122	0.00821	0.00908		
1/31/2022				0.0126	
2/1/2022					0.0135
7/5/2022	0.0116	0.0155	0.0113		

Time Series

Constituent: Barium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0142	0.0146
2/20/2023	0.0122	0.00822			
2/21/2023			0.0116	0.0141	0.0148

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.001015		<0.001015		
4/27/2016		0.00486			
4/28/2016				<0.001015	
6/20/2016	<0.001015				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	<0.001015				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.001015				
10/3/2016	<0.001015				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.001015				
11/21/2016	<0.001015	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.001015	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		0.000883 (J)	<0.001015	<0.001015	
3/22/2017	<0.001015				
4/18/2017	<0.001015				
5/30/2017	<0.001015		<0.001015		
5/31/2017		0.00123 (J)		<0.001015	
2/13/2018	<0.001015				
2/14/2018			<0.001015		
2/15/2018		0.00235 (J)		<0.001015	
5/22/2018	<0.001015		<0.001015		
5/24/2018		0.001 (J)		<0.001015	
6/12/2018	<0.001015				
10/17/2018	<0.001015				
11/19/2018	<0.001015	0.00203 (J)		<0.001015	
11/20/2018			<0.001015		
3/12/2019					<0.001015
4/10/2019	<0.001015				
5/14/2019	<0.001015				
5/15/2019		0.00177 (J)	<0.001015	<0.001015	
10/8/2019	<0.001015				
10/9/2019		0.00072 (J)		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.001015				
4/6/2020	<0.001015		<0.001015	<0.001015	<0.001015
4/8/2020		0.00114 (J)			
7/13/2020	<0.001015		<0.001015	<0.001015	<0.001015
7/14/2020		0.00135 (J)			
2/22/2021	<0.001015				
2/23/2021		0.00128			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	<0.001015				
7/20/2021		0.00095 (J)		<0.001015	<0.001015
7/21/2021			<0.001015		
1/25/2022	<0.001015				
2/1/2022		<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.001015		<0.001015	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	<0.001015				
2/21/2023			<0.001015		
2/22/2023		0.000498 (J)		<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	0.00122 (J)	<0.001015		
4/27/2016				<0.001015	<0.001015
6/20/2016	<0.001015		<0.001015		
6/21/2016				<0.001015	<0.001015
6/22/2016		0.00144 (J)			
8/8/2016	<0.001015				
8/9/2016		0.00331	<0.001015		
8/24/2016	<0.001015	0.00308	<0.001015		
10/3/2016	<0.001015		<0.001015		
10/4/2016		0.00129 (J)			
10/26/2016	<0.001015	0.0071	<0.001015		
11/21/2016	<0.001015	0.00689	<0.001015		
1/17/2017	<0.001015				
1/18/2017		0.0169 (O)	<0.001015		
3/22/2017	<0.001015	0.00686	<0.001015		
4/18/2017	<0.001015	<0.001015	<0.001015		
5/31/2017	<0.001015	0.00547	<0.001015		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.001015	<0.001015	<0.001015
5/24/2018		0.00164 (J)			
6/12/2018	<0.001015	0.00306	<0.001015		
10/17/2018	<0.001015	0.0121	<0.001015		
11/19/2018	<0.001015	0.0185 (O)	<0.001015		
11/20/2018				<0.001015	<0.001015
4/10/2019	<0.001015	<0.001015	<0.001015		
5/14/2019	<0.001015	<0.001015	<0.001015		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	0.0084		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.001015		
10/16/2019	<0.001015	0.0103	<0.001015		
4/6/2020	<0.001015	<0.001015	<0.001015		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	0.0021 (J)			
7/14/2020			<0.001015	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	<0.001015	<0.001015		
2/23/2021				<0.001015	<0.001015
7/12/2021	<0.001015	<0.001015	<0.001015		
7/20/2021				<0.001015	<0.001015
1/25/2022	<0.001015	<0.001015	<0.001015		
1/31/2022				<0.001015	
2/1/2022					<0.001015
7/5/2022	<0.001015	0.00139	<0.001015		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.001015	<0.001015
2/20/2023	<0.001015	<0.001015			
2/21/2023			<0.001015	<0.001015	<0.001015

Time Series

Constituent: Boron (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.0231 (J)		0.094 (J)		
4/27/2016		0.371			
4/28/2016				0.19	
6/20/2016	0.0227 (J)				
6/22/2016			0.0959 (J)	0.118	
6/23/2016		0.251			
8/8/2016	0.0278 (J)				
8/9/2016			0.0964 (J)		
8/10/2016		0.216		0.197	
8/24/2016	0.0247 (J)				
10/3/2016	0.0307 (J)				
10/4/2016			0.0916 (J)		
10/5/2016		0.187		0.179	
10/26/2016	0.0241 (J)				
11/21/2016	0.0202 (J)	0.182	0.0929 (J)		
11/22/2016				0.197	
1/17/2017	0.0201 (J)	0.2	0.0963 (J)		
1/18/2017				0.186	
3/21/2017		0.178	0.0947 (J)	0.183	
3/22/2017	0.0224 (J)				
4/18/2017	<0.1015				
5/30/2017	<0.1015		0.0926 (J)		
5/31/2017		0.149		0.193	
8/23/2017	0.0253 (J)	0.181	0.0968 (J)	0.185	
5/22/2018	0.0224 (J)		0.102		
5/24/2018		0.159		0.197	
6/12/2018	0.0214 (J)				
10/17/2018	0.0216 (J)				
11/19/2018	0.0237 (J)	0.211		0.252	
11/20/2018			0.106		
3/12/2019					0.147
4/10/2019	0.0304 (J)				
5/14/2019	<0.1015				
5/15/2019		0.234	0.101 (J)	0.239	
10/8/2019	<0.1015				
10/9/2019		0.181		0.315	
10/10/2019			0.109		0.15
10/16/2019	0.0385 (J)				
4/6/2020	<0.1015		0.109	0.229	0.149
4/8/2020		0.209			
7/13/2020	<0.1015		0.111	0.266	0.15
7/14/2020		0.25			
2/22/2021	0.0307 (J)				
2/23/2021		0.205			
2/24/2021			0.108	0.193	0.16
7/12/2021	<0.1015				
7/20/2021		0.201		0.227	0.149
7/21/2021			0.104		
1/25/2022	<0.1015				
2/1/2022		0.177	0.105	0.208	0.149
7/5/2022	<0.1015		0.105	0.172	0.157
7/6/2022		0.144			

Time Series

Constituent: Boron (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	<0.1015				
2/21/2023			0.104		
2/22/2023		0.122		0.153	0.152

Time Series

Constituent: Boron (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0241 (J)	0.028 (J)	0.0414 (J)		
4/27/2016				0.253 (o)	0.0662 (J)
6/20/2016	0.0284 (J)		0.0434 (J)		
6/21/2016				0.0768 (J)	0.0681 (J)
6/22/2016		0.0433 (J)			
8/8/2016	0.034 (J)				
8/9/2016		0.0429 (J)	0.0453 (J)		
8/24/2016	0.0316 (J)	0.0431 (J)	0.0451 (J)		
10/3/2016	0.0367 (J)		0.0511 (J)		
10/4/2016		0.04 (J)			
10/26/2016	0.0331 (J)	0.0375 (J)	0.0507 (J)		
11/21/2016	0.035 (J)	0.0406 (J)	0.0458 (J)		
1/17/2017	0.0259 (J)				
1/18/2017		0.0548 (J)	0.0445 (J)		
3/22/2017	0.0243 (J)	0.0344 (J)	0.0432 (J)		
4/18/2017	0.0206 (J)	<0.1015	0.0409 (J)		
5/31/2017	0.0234 (J)	0.0454 (J)	0.0392 (J)		
8/23/2017	0.0267 (J)	0.0425 (J)	0.042 (J)		
10/12/2017				0.0685 (J)	0.0687 (J)
10/13/2017				0.0674 (J)	0.0831 (J)
10/14/2017				0.0756 (J)	0.0702 (J)
10/15/2017				0.0719 (J)	0.0702 (J)
10/16/2017				0.0726 (J)	0.0707 (J)
10/17/2017				0.0716 (J)	0.0695 (J)
11/16/2017				0.0644 (J)	0.0675 (J)
5/22/2018	0.0251 (J)				
5/23/2018			0.0433 (J)	0.0715 (J)	0.0693 (J)
5/24/2018		0.0339 (J)			
6/12/2018	0.0275 (J)	0.0371 (J)	0.0478 (J)		
10/17/2018	0.0321 (J)	0.0596 (J)	0.0468 (J)		
11/19/2018	0.0324 (J)	0.0514 (J)	0.0526 (J)		
11/20/2018				0.0772 (J)	0.0771 (J)
4/10/2019	<0.1015	<0.1015	0.0438 (J)		
5/14/2019	<0.1015	<0.1015	<0.203 (o)		
5/15/2019				0.0678 (J)	0.0689 (J)
10/8/2019	0.0371 (J)	0.0537 (J)		0.073 (J)	
10/9/2019					0.0723 (J)
10/10/2019			0.0487 (J)		
10/16/2019	0.0419 (J)	0.05 (J)	0.0505 (J)		
4/6/2020	<0.1015	<0.1015	0.0428 (J)		
4/8/2020				0.077 (J)	0.0683 (J)
7/13/2020	<0.1015	0.0366 (J)			
7/14/2020			0.0441 (J)	0.0865 (J)	
7/15/2020					0.0723 (J)
2/22/2021	<0.1015	<0.1015	0.0397 (J)		
2/23/2021				0.0803 (J)	0.0731 (J)
7/12/2021	<0.1015	<0.1015	0.0411 (J)		
7/20/2021				0.0721 (J)	0.0656 (J)
1/25/2022	<0.1015	<0.1015	0.0408 (J)		
1/31/2022				0.0689 (J)	
2/1/2022					0.0639 (J)
7/5/2022	<0.1015	0.0374 (J)	0.0433 (J)		

Time Series

Constituent: Boron (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0752 (J)	0.0686 (J)
2/20/2023	<0.1015	<0.1015			
2/21/2023			0.0408 (J)	0.0645 (J)	0.0609 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.00196		<0.000203		
4/27/2016		0.000452 (J)			
4/28/2016				<0.000203	
6/20/2016	0.0021				
6/22/2016			<0.000203	<0.000203	
6/23/2016		<0.000203			
8/8/2016	0.00206				
8/9/2016			<0.000203		
8/10/2016		<0.000203		<0.000203	
8/24/2016	0.00182				
10/3/2016	0.00188				
10/4/2016			<0.000203		
10/5/2016		<0.000203		<0.000203	
10/26/2016	0.00175				
11/21/2016	0.00197	<0.000203	<0.000203		
11/22/2016				<0.000203	
1/17/2017	0.002	<0.000203	<0.000203		
1/18/2017				<0.000203	
3/21/2017		<0.000203	<0.000203	<0.000203	
3/22/2017	0.0019				
4/18/2017	0.00159				
5/30/2017	0.00214		<0.000203		
5/31/2017		<0.000203		<0.000203	
2/13/2018	0.0018				
2/14/2018			<0.000203		
2/15/2018		<0.000203		<0.000203	
5/22/2018	0.00201		<0.000203		
5/24/2018		<0.000203		<0.000203	
6/12/2018	0.00217				
10/17/2018	0.00228				
11/19/2018	0.00156	<0.000203		<0.000203	
11/20/2018			<0.000203		
3/12/2019					<0.000203
4/10/2019	0.00224				
5/14/2019	0.00238				
5/15/2019		<0.000203	<0.000203	<0.000203	
10/8/2019	0.00218				
10/9/2019		<0.000203		<0.000203	
10/10/2019			<0.000203		<0.000203
10/16/2019	0.00225				
4/6/2020	0.00184		<0.000203	<0.000203	<0.000203
4/8/2020		<0.000203			
7/13/2020	0.00194		<0.000203	<0.000203	<0.000203
7/14/2020		<0.000203			
2/22/2021	0.00184				
2/23/2021		0.000148 (J)			
2/24/2021			<0.000203	<0.000203	<0.000203
7/12/2021	0.00193				
7/20/2021		8E-05 (J)		<0.000203	<0.000203
7/21/2021			<0.000203		
1/25/2022	0.00196				
2/1/2022		0.0001 (J)	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.00211		<0.000203	<0.000203	<0.000203
7/6/2022		<0.000203			
2/20/2023	0.00185				
2/21/2023			<0.000203		
2/22/2023		<0.000203		<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.000203	0.0121 (O)	<0.000203		
4/27/2016				<0.000203	<0.000203
6/20/2016	<0.000203		<0.000203		
6/21/2016				<0.000203	<0.000203
6/22/2016		0.00163			
8/8/2016	<0.000203				
8/9/2016		0.00122	<0.000203		
8/24/2016	<0.000203	<0.001	<0.000203		
10/3/2016	<0.000203		<0.000203		
10/4/2016		0.000689 (J)			
10/26/2016	<0.000203	0.00136	<0.000203		
11/21/2016	<0.000203	0.00171	<0.000203		
1/17/2017	0.000311 (J)				
1/18/2017		0.003	<0.000203		
3/22/2017	<0.000203	0.00473	<0.000203		
4/18/2017	<0.000203	0.00117	<0.000203		
5/31/2017	0.000212 (J)	0.00296	<0.000203		
10/12/2017				<0.000203	<0.000203
10/13/2017				<0.000203	<0.000203
10/14/2017				<0.000203	<0.000203
10/15/2017				<0.000203	<0.000203
10/16/2017				<0.000203	<0.000203
10/17/2017				<0.000203	<0.000203
2/13/2018	<0.000203	0.00232	<0.000203		
2/14/2018				<0.000203	<0.000203
5/22/2018	<0.000203				
5/23/2018			<0.000203	<0.000203	<0.000203
5/24/2018		0.00459			
6/12/2018	<0.000203	0.00351	<0.000203		
10/17/2018	<0.000203	0.00393	<0.000203		
11/19/2018	<0.000203	0.00309	<0.000203		
11/20/2018				<0.000203	<0.000203
4/10/2019	<0.000203	0.00337	<0.000203		
5/14/2019	<0.000203	0.0013	<0.000203		
5/15/2019				<0.000203	<0.000203
10/8/2019	<0.000203	0.00598		<0.000203	
10/9/2019					<0.000203
10/10/2019			<0.000203		
10/16/2019	<0.000203	0.00448	<0.000203		
4/6/2020	<0.000203	0.000645 (J)	<0.000203		
4/8/2020				<0.000203	<0.000203
7/13/2020	<0.000203	0.00885 (O)			
7/14/2020			<0.000203	<0.000203	
7/15/2020					<0.000203
2/22/2021	8.96E-05 (J)	0.00536	8.96E-05 (J)		
2/23/2021				<0.000203	<0.000203
7/12/2021	8E-05 (J)	0.00094	8E-05 (J)		
7/20/2021				<0.000203	<0.000203
1/25/2022	8E-05 (J)	0.00178	<0.000203		
1/31/2022				<0.000203	
2/1/2022					<0.000203
7/5/2022	8.4E-05 (J)	0.00835	7.5E-05 (J)		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.000203	<0.000203
2/20/2023	<0.000203	0.00144			
2/21/2023			<0.000203	<0.000203	<0.000203

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	147		400		
4/27/2016		279			
4/28/2016				349	
6/20/2016	152				
6/22/2016			398	374	
6/23/2016		256			
8/8/2016	150				
8/9/2016			399		
8/10/2016		245		348	
8/24/2016	142				
10/3/2016	139				
10/4/2016			389		
10/5/2016		225		344	
10/26/2016	133				
11/21/2016	144	179	386		
11/22/2016				342	
1/17/2017	131	168	344		
1/18/2017				359	
3/21/2017		152	396	352	
3/22/2017	141				
4/18/2017	149				
5/30/2017	140		370		
5/31/2017		130		313	
8/23/2017	152	147	374	349	
5/22/2018	166		375		
5/24/2018		159		349	
6/12/2018	203				
10/17/2018	171				
11/19/2018	154	160		348	
11/20/2018			370		
3/12/2019					355
4/10/2019	243				
5/14/2019	167				
5/15/2019		186	380	411	
10/8/2019	157				
10/9/2019		146		359	
10/10/2019			373		319
10/16/2019	157				
4/6/2020	149		333	354	301
4/8/2020		164			
7/13/2020	147		350	392	305
7/14/2020		208			
2/22/2021	151				
2/23/2021		151			
2/24/2021			325	346	293
7/12/2021	149				
7/20/2021		149		330	283
7/21/2021			322		
1/25/2022	150				
2/1/2022		155	335	334	293
7/5/2022	168		333	330	295
7/6/2022		150			

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	151				
2/21/2023			314		
2/22/2023		152		304	297

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	123	224	261		
4/27/2016				198	282
6/20/2016	168		295		
6/21/2016				327	291
6/22/2016		266			
8/8/2016	180				
8/9/2016		260	318		
8/24/2016	180	274	319		
10/3/2016	184		293		
10/4/2016		243			
10/26/2016	171	254	311		
11/21/2016	179	263	320		
1/17/2017	188				
1/18/2017		431	417		
3/22/2017	155	318	292		
4/18/2017	156	296	302		
5/31/2017	151	306	284		
8/23/2017	155	298	297		
10/12/2017				317	300
10/13/2017				302	298
10/14/2017				283	299
10/15/2017				294	307
10/16/2017				284	299
10/17/2017				294	294
11/16/2017				299	308
5/22/2018	172				
5/23/2018			296	321	344
5/24/2018		297			
6/12/2018	179	318	355		
10/17/2018	200	392	342		
11/19/2018	221	387	289		
11/20/2018				306	327
4/10/2019	200	348	356		
5/14/2019	168	254	254		
5/15/2019				302	305
10/8/2019	190	371		294	
10/9/2019					329
10/10/2019			302		
10/16/2019	194	346	356		
4/6/2020	152	177	222		
4/8/2020				280	281
7/13/2020	163	264			
7/14/2020			259	261	
7/15/2020					280
2/22/2021	178	312	271		
2/23/2021				292	306
7/12/2021	159	252	242		
7/20/2021				254	281
1/25/2022	179	285	259		
1/31/2022				278	
2/1/2022					284
7/5/2022	172	369	294		

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				280	306
2/20/2023	160	210			
2/21/2023			232	286	327

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	1.94		2.16		
4/27/2016		1.46			
4/28/2016				4.12	
6/20/2016	2.09				
6/22/2016			2.16	3.44	
6/23/2016		1.49			
8/8/2016	2.18				
8/9/2016			2.19		
8/10/2016		1.55		4.15	
8/24/2016	2.22				
10/3/2016	2.34				
10/4/2016			2.21		
10/5/2016		1.58		4.12	
10/26/2016	2.34				
11/21/2016	2.5	1.62	2.24		
11/22/2016				3.98	
1/17/2017	2.68	1.61	2.23		
1/18/2017				3.6	
3/21/2017		1.6 (J)	2.5	3.6	
3/22/2017	3.7				
4/18/2017	2.4				
5/30/2017	2.6		3.2		
5/31/2017		3.2		3.9	
8/23/2017	2.7	6.1	2.8	4.2	
5/22/2018	2.3		24		
5/24/2018		5		7.1	
6/12/2018	2.3				
10/17/2018	1.7 (J)				
11/19/2018	1.7 (J)	7.8		6.1	
11/20/2018			59		
3/12/2019					84.8
4/10/2019	2.36				
5/14/2019	2.28				
5/15/2019		6.93	75.4	8.51	
10/8/2019	2.31				
10/9/2019		4.51		8.73	
10/10/2019			84.6		79.3
10/16/2019	2.42				
4/6/2020	2.01		100	8.58	79.4
4/8/2020		2.64			
7/13/2020	2.1		79.6	8.35	70.1
7/14/2020		3.09			
2/22/2021	2.16				
2/23/2021		3.63			
2/24/2021			113	11.2	101
7/12/2021	2.19				
7/20/2021		3.64		9.85	59.2
7/21/2021			73.8		
1/25/2022	2.09				
2/1/2022		3.97	68.3	11.5	69.3
7/5/2022	2.07		55.200001	10.5	62
7/6/2022		2.79			

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	2.05				
2/21/2023			50.400002		
2/22/2023		2.77		10.9	34.299999

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	1.9	1.32	1.53		
4/27/2016				1.71	2.34
6/20/2016	3.43		1.85		
6/21/2016				2.04	2.29
6/22/2016		1.46			
8/8/2016	3.31				
8/9/2016		1.35	1.95		
8/24/2016	3.23	1.47	2.07		
10/3/2016	3.21		2.02		
10/4/2016		1.59			
10/26/2016	3.35	1.27	2.07		
11/21/2016	3.34	1.38	2.39		
1/17/2017	3.58				
1/18/2017		1.34	1.9		
3/22/2017	3.4	2	1.5 (J)		
4/18/2017	2.6	2.2	1.6 (J)		
5/31/2017	4.4	1.5 (J)	2.1		
8/23/2017	4.4	1.8 (J)	2.3		
10/12/2017				31	150
10/13/2017				32	130
10/14/2017				33	140
10/15/2017				34	130
10/16/2017				34	140
10/17/2017				34	140
11/16/2017				35	130
5/22/2018	3.2				
5/23/2018			2	28	75
5/24/2018		1.6 (J)			
6/12/2018	3.7	1.4 (J)	1.7 (J)		
10/17/2018	4.6	<2	1.5 (J)		
11/19/2018	3	<2	<2		
11/20/2018				20	45
4/10/2019	1.76	2.25	1.88		
5/14/2019	2.98	2.28	1.82		
5/15/2019				15.9	52
10/8/2019	4.26	1.36		16.8	
10/9/2019					39.2
10/10/2019			1.93		
10/16/2019	4.04	1.4	1.92		
4/6/2020	2.43	1.72	1.5		
4/8/2020				10.6	24.9
7/13/2020	4.05	1.34			
7/14/2020			1.61	9.68	
7/15/2020					23.8
2/22/2021	1.72	2.22	1.52		
2/23/2021				7.85	17.9
7/12/2021	2.36	2.13	1.56		
7/20/2021				6.35	14.3
1/25/2022	2.14	2.12	1.54		
1/31/2022				6.4	
2/1/2022					8.56
7/5/2022	2.53	1.59	1.63		

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				6.25	6.5
2/20/2023	1.7	1.94			
2/21/2023			1.58	6.12	4.86

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.01		<0.001015		
4/27/2016		<0.001015			
4/28/2016				<0.001015	
6/20/2016	<0.01				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	<0.01				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.01				
10/3/2016	<0.01				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.01				
11/21/2016	<0.01	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.01	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		<0.001015	<0.001015	<0.001015	
3/22/2017	<0.01				
4/18/2017	<0.01				
5/30/2017	<0.01		<0.001015		
5/31/2017		<0.001015		<0.001015	
2/13/2018	<0.01				
2/14/2018			<0.001015		
2/15/2018		<0.001015		<0.001015	
5/22/2018	<0.01		<0.001015		
5/24/2018		<0.001015		<0.001015	
6/12/2018	<0.01				
10/17/2018	<0.01				
11/19/2018	<0.01	<0.001015		<0.001015	
11/20/2018			<0.001015		
3/12/2019					<0.001015
4/10/2019	<0.01				
5/14/2019	<0.01				
5/15/2019		<0.001015	<0.001015	<0.001015	
10/8/2019	<0.01				
10/9/2019		<0.001015		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.01				
4/6/2020	<0.01		<0.001015	<0.001015	<0.001015
4/8/2020		<0.001015			
7/13/2020	<0.01		<0.001015	<0.001015	<0.001015
7/14/2020		<0.001015			
2/22/2021	0.000382 (J)				
2/23/2021		<0.001015			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	0.00049 (J)				
7/20/2021		0.00021 (J)		0.00028 (J)	<0.001015
7/21/2021			<0.001015		
1/25/2022	0.00043 (J)				
2/1/2022		0.00029 (J)	0.00033 (J)	0.00033 (J)	0.00039 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.000364 (J)		0.000269 (J)	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	0.000409 (J)				
2/21/2023			<0.001015		
2/22/2023		0.000277 (J)		<0.001015	<0.001015

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	0.00373 (J)	<0.001015		
4/27/2016				<0.001015	<0.001015
6/20/2016	<0.001015		<0.001015		
6/21/2016				<0.001015	<0.001015
6/22/2016		0.00606 (J)			
8/8/2016	<0.001015				
8/9/2016		<0.01	<0.001015		
8/24/2016	<0.001015	<0.01	<0.001015		
10/3/2016	<0.001015		<0.001015		
10/4/2016		<0.01			
10/26/2016	<0.001015	<0.01	<0.001015		
11/21/2016	<0.001015	<0.01	<0.001015		
1/17/2017	<0.001015				
1/18/2017		<0.01	<0.001015		
3/22/2017	<0.001015	0.00945 (J)	<0.001015		
4/18/2017	<0.001015	0.0105	<0.001015		
5/31/2017	<0.001015	<0.01	<0.001015		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	<0.01	<0.001015		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.001015	<0.001015	<0.001015
5/24/2018		<0.01			
6/12/2018	<0.001015	<0.01	<0.001015		
10/17/2018	<0.001015	<0.01	<0.001015		
11/19/2018	<0.001015	<0.01	<0.001015		
11/20/2018				<0.001015	<0.001015
4/10/2019	<0.001015	<0.01	<0.001015		
5/14/2019	<0.001015	<0.01	<0.001015		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	<0.01		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.001015		
10/16/2019	<0.001015	<0.01	<0.001015		
4/6/2020	<0.001015	<0.01	<0.001015		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	<0.01			
7/14/2020			<0.001015	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	0.00035 (J)	<0.001015		
2/23/2021				<0.001015	<0.001015
7/12/2021	0.00025 (J)	0.00031 (J)	0.0003 (J)		
7/20/2021				<0.001015	<0.001015
1/25/2022	0.00022 (J)	0.00051 (J)	0.00021 (J)		
1/31/2022				0.00032 (J)	
2/1/2022					0.00025 (J)
7/5/2022	<0.001015	0.00025 (J)	<0.001015		

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.001015	<0.001015
2/20/2023	0.00033 (J)	0.000384 (J)			
2/21/2023			0.000244 (J)	<0.001015	<0.001015

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.0343		<0.005		
4/27/2016		0.0543			
4/28/2016				0.0531	
6/20/2016	0.0413				
6/22/2016			<0.005	0.0388	
6/23/2016		0.0106			
8/8/2016	0.0513				
8/9/2016			<0.005		
8/10/2016		0.00438 (J)		0.0565	
8/24/2016	0.0471				
10/3/2016	0.0525				
10/4/2016			<0.005		
10/5/2016		0.00663 (J)		0.0479	
10/26/2016	0.0527				
11/21/2016	0.0569	0.0109	<0.005		
11/22/2016				0.0453	
1/17/2017	0.0768	0.0146	<0.005		
1/18/2017				0.0431	
3/21/2017		0.013	<0.005	0.0414	
3/22/2017	0.0535				
4/18/2017	0.0442				
5/30/2017	0.0465		<0.005		
5/31/2017		0.0086 (J)		0.0379	
2/13/2018	0.062				
2/14/2018			<0.005		
2/15/2018		0.0199		0.0333	
5/22/2018	0.0443		<0.005		
5/24/2018		0.00905 (J)		0.0399	
6/12/2018	0.0512				
10/17/2018	0.0751				
11/19/2018	0.0825	0.0147		0.0485	
11/20/2018			<0.005		
3/12/2019					<0.005
4/10/2019	0.0445				
5/14/2019	0.0485				
5/15/2019		0.0226	<0.005	0.0603	
10/8/2019	0.0778				
10/9/2019		0.00969		0.0512	
10/10/2019			<0.005		<0.005
10/16/2019	0.08				
4/6/2020	0.0417		<0.005	0.0537	<0.005
4/8/2020		0.0176			
7/13/2020	0.0532		<0.005	0.0515	<0.005
7/14/2020		0.0232			
2/22/2021	0.0657				
2/23/2021		0.0167			
2/24/2021			0.00026	0.0442	0.000378
7/12/2021	0.0556				
7/20/2021		0.0131		0.046	0.00018 (J)
7/21/2021			0.00025		
1/25/2022	0.0654				
2/1/2022		0.00978	0.00046	0.0474	0.00022

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.0627		0.000443	0.0512	6.8E-05 (J)
7/6/2022		0.00285			
2/20/2023	0.0665				
2/21/2023			0.000889		
2/22/2023		0.00105		0.0535	0.000114 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0487	0.232	<0.000203		
4/27/2016				<0.01	0.00436 (J)
6/20/2016	0.0767		<0.000203		
6/21/2016				<0.01	0.00484 (J)
6/22/2016		0.332			
8/8/2016	0.103				
8/9/2016		0.311	<0.000203		
8/24/2016	0.093	0.271	<0.000203		
10/3/2016	0.0964		<0.000203		
10/4/2016		0.148			
10/26/2016	0.0904	0.236	<0.000203		
11/21/2016	0.0857	0.241	<0.000203		
1/17/2017	0.0745				
1/18/2017		0.347	<0.000203		
3/22/2017	0.0328	0.271	<0.000203		
4/18/2017	0.0242	0.00324 (J)	<0.000203		
5/31/2017	0.0441	0.225	<0.000203		
10/12/2017				0.00269 (J)	0.005 (J)
10/13/2017				0.00341 (J)	0.0052 (J)
10/14/2017				0.00451 (J)	0.00513 (J)
10/15/2017				0.00371 (J)	0.00518 (J)
10/16/2017				0.00371 (J)	0.00453 (J)
10/17/2017				0.0035 (J)	0.00463 (J)
2/13/2018	0.0179	0.00661 (J)	<0.000203		
2/14/2018				<0.01	0.00441 (J)
5/22/2018	0.028				
5/23/2018			<0.000203	<0.01	0.00466 (J)
5/24/2018		0.158			
6/12/2018	0.0366	0.291	<0.000203		
10/17/2018	0.0745	0.49	<0.000203		
11/19/2018	0.0225	0.386	<0.000203		
11/20/2018				0.00306 (J)	0.00551
4/10/2019	0.0152	0.0144	<0.000203		
5/14/2019	0.0222	0.00536	<0.000203		
5/15/2019				0.00234 (J)	0.00643
10/8/2019	0.0674	1.07 (o)		0.00408 (J)	
10/9/2019					0.00864
10/10/2019			<0.000203		
10/16/2019	0.073	0.848 (o)	<0.000203		
4/6/2020	0.0116	<0.005	<0.000203		
4/8/2020				0.00394 (J)	0.00762
7/13/2020	0.0405	0.47			
7/14/2020			<0.000203	0.00653	
7/15/2020					0.00821
2/22/2021	0.0161	0.0515	<0.000203		
2/23/2021				0.00294	0.00796
7/12/2021	0.0155	0.00567	<0.000203		
7/20/2021				0.00561	0.00714
1/25/2022	0.0166	0.0051	<0.000203		
1/31/2022				0.00546	
2/1/2022					0.0075
7/5/2022	0.0184	0.195	<0.000203		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0059	0.00701
2/20/2023	0.0187	0.00435			
2/21/2023			<0.000203	0.0043	0.00682

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.622		0.57		
4/27/2016		0.316 (U)		0.259 (U)	
4/28/2016				0.608	
6/20/2016	0.159 (U)				
6/22/2016			0.724	0.45 (U)	
6/23/2016		0.451 (U)			
8/8/2016	0.511 (U)				
8/9/2016			0.579		
8/10/2016		0.368 (U)		1.03	
8/24/2016	0.566 (U)				
10/3/2016	0.537 (U)				
10/4/2016			0.372 (U)		
10/5/2016		0.515		0.494 (U)	
10/26/2016	0.636				
11/21/2016	0.807	0.489 (U)	1.19		
11/22/2016				0.578	
1/17/2017	0.308 (U)	0.236 (U)	-0.187 (U)		
1/18/2017				0.216 (U)	
3/21/2017		0.101 (U)	0.403 (U)	0.101 (U)	
3/22/2017	0.344 (U)				
4/18/2017	0.934				
5/30/2017	0.149 (U)		0.998		
5/31/2017		1.19		1.4	
2/13/2018	0.774				
2/14/2018			1.74		
2/15/2018		0.55		0.925	
5/22/2018	-0.091 (U)		0.276 (U)		
5/24/2018		0.472		0.756	
6/12/2018	1.18				
10/17/2018	0.553 (U)				
11/19/2018	0.862 (D)	0.167 (U)		0.648	
11/20/2018			1.04		
3/12/2019					0.369
5/14/2019	0.509				
5/15/2019		0.421 (U)	1.18	1	
10/8/2019	1.47				
10/9/2019		0.742 (U)		1.18	
10/10/2019			0.902		0.446 (U)
10/16/2019	0.204 (U)				
4/6/2020	0.309 (U)		0.678	1.22	0.116 (U)
4/8/2020		0.205 (U)			
7/13/2020	0.219 (U)		0.665	0.787	0.794
7/14/2020		0.314 (U)			
2/22/2021	0.677 (U)				
2/23/2021		0.329 (U)			
2/24/2021			0.869 (U)	1.24	0.865 (U)
7/12/2021	0.476 (U)				
7/20/2021		0.344 (U)		1.15 (U)	0.763 (U)
7/21/2021			0.951 (U)		
1/25/2022	1.01 (U)				
2/1/2022		0.012 (U)	0.883 (U)	1.13 (U)	1.01 (U)
7/5/2022	1.49		0.697 (U)	1.72	1.09 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/6/2022		0.501 (U)			
2/20/2023	0.36 (U)				
2/21/2023			0.699 (U)		
2/22/2023		0.804 (U)		1.05	0.782 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016		0.484 (U)	0.434 (U)		
4/27/2016				0.374 (U)	-0.207 (U)
5/5/2016	-0.0718 (U)				
6/20/2016	0.295 (U)		0.287 (U)		
6/21/2016				0.151 (U)	0.529
6/22/2016		0.2 (U)			
8/8/2016	0.231 (U)				
8/9/2016		0.378 (U)	0.516 (U)		
8/24/2016	0.65	0.131 (U)	0.266 (U)		
10/3/2016	0.845		0.59 (U)		
10/4/2016		0.514 (U)			
10/26/2016	0.994	0.755	0.164 (U)		
11/21/2016	0.537 (U)	0.7	0.296 (U)		
1/17/2017	-0.0159 (U)				
1/18/2017		0.606	0.0267 (U)		
3/22/2017	0.279 (U)	0.927	0.132 (U)		
4/18/2017	0.32 (U)	0.334 (U)	-0.0439 (U)		
5/31/2017	0.178 (U)	0.8	0.3 (U)		
10/12/2017				0.182 (U)	0.267 (U)
10/13/2017				0.517 (U)	0.873 (U)
10/14/2017				0.43 (U)	1.6 (U)
10/15/2017				0.45 (U)	0.327 (U)
10/16/2017				0.55 (U)	0.524 (U)
10/17/2017				0.474 (U)	0.0455 (U)
2/13/2018	0.804	0.649	0.69		
2/14/2018				0.736	0.633
5/22/2018	0.0077 (U)				
5/23/2018			0.186 (U)	0.0192 (U)	0.377 (U)
5/24/2018		0.448 (U)			
6/12/2018	-0.315 (U)	0.234 (U)	0.153 (U)		
10/17/2018	0.574 (U)	0.852	0.313 (U)		
11/19/2018	0.654 (D)	0.521 (D)	0.794 (D)		
11/20/2018				0.494	0.28 (U)
5/14/2019	0.579	0.176 (U)	0.352 (U)		
5/15/2019				0.61	0.697
10/8/2019	0.493 (U)	0.833 (U)		0.345 (U)	
10/9/2019					0.416 (U)
10/10/2019			1.02 (U)		
10/16/2019	0.046 (U)	0.0279 (U)	0.356 (U)		
4/6/2020	0.212 (U)	0.569 (U)	0.459 (U)		
4/8/2020				0.237 (U)	1.38 (U)
7/13/2020	0.0814 (U)	0.53			
7/14/2020			0.169 (U)	0.434	
7/15/2020					0.398 (U)
2/22/2021	0.434 (U)	0.472 (U)	0 (U)		
2/23/2021				0.696 (U)	0.685 (U)
7/12/2021	0.155 (U)	0.114 (U)	0.301 (U)		
7/20/2021				0.356 (U)	0.42 (U)
1/25/2022	0.663 (U)	0.418 (U)	0.884 (U)		
1/31/2022				0.473 (U)	
2/1/2022					0.643 (U)
7/5/2022	1.31	1.33	1.1		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.716 (U)	0.415 (U)
2/20/2023	0.837 (U)	0.234 (U)			
2/21/2023			0.3 (U)	0.789 (U)	2.19

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.146 (J)		0.084 (J)		
4/27/2016		0.337			
4/28/2016				0.153 (J)	
6/20/2016	0.148 (J)				
6/22/2016			0.106 (J)	0.146 (J)	
6/23/2016		0.155 (J)			
8/8/2016	0.137 (J)				
8/9/2016			0.092 (J)		
8/10/2016		0.123 (J)		0.127 (J)	
8/24/2016	0.133 (J)				
10/3/2016	0.103 (J)				
10/4/2016			0.049 (J)		
10/5/2016		0.086 (J)		0.09 (J)	
10/26/2016	0.05 (J)				
11/21/2016	0.047 (J)	0.056 (J)	<0.3		
11/22/2016				0.012 (J)	
1/17/2017	0.09 (J)	0.103 (J)	0.044 (J)		
1/18/2017				0.071 (J)	
3/21/2017		0.15	0.08 (J)	0.09 (J)	
3/22/2017	0.12				
4/18/2017	0.12				
5/30/2017	0.13		0.096 (J)		
5/31/2017		0.18		0.11	
8/23/2017	0.16	0.23	0.11	0.13	
2/13/2018	0.14				
2/14/2018			0.1		
2/15/2018		0.23		0.12	
5/22/2018	0.16		0.1		
5/24/2018		0.13		0.15	
6/12/2018	0.16				
10/17/2018	0.18				
11/19/2018	0.15	0.26		0.16	
11/20/2018			0.1		
3/12/2019					0.177
4/10/2019	0.102				
5/14/2019	0.119				
5/15/2019		0.276	0.1	0.185	
10/8/2019	0.0924 (J)				
10/9/2019		0.142		0.215	
10/10/2019			0.0915 (J)		0.163
10/16/2019	0.0756 (J)				
4/6/2020	0.101		0.118	0.254	0.188
4/8/2020		0.243			
7/13/2020	0.0678 (J)		0.108	0.161	0.166
7/14/2020		0.224			
2/22/2021	0.082 (J)				
2/23/2021		0.202			
2/24/2021			0.107	0.172	0.17
7/12/2021	0.125				
7/20/2021		0.268		0.219	0.224
7/21/2021			0.16		
1/25/2022	0.101				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/1/2022		0.157	0.0848 (J)	0.174	0.151
7/5/2022	0.11 (J)		0.124 (J)	0.275	0.212
7/6/2022		0.145			
2/20/2023	0.221				
2/21/2023			0.129		
2/22/2023		0.132		0.239	0.199

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.149 (J)	0.243 (J)	0.372		
4/27/2016				0.2 (J)	0.212 (J)
6/20/2016	0.148 (J)		0.361		
6/21/2016				0.163 (J)	0.211 (J)
6/22/2016		0.269 (J)			
8/8/2016	0.134 (J)				
8/9/2016		0.363	0.326		
8/24/2016	0.129 (J)	0.346	0.329		
10/3/2016	0.086 (J)		0.287 (J)		
10/4/2016		0.266 (J)			
10/26/2016	0.027 (J)	0.266 (J)	0.194 (J)		
11/21/2016	0.027 (J)	0.244 (J)	0.192 (J)		
1/17/2017	0.066 (J)				
1/18/2017		0.385	0.223 (J)		
3/22/2017	0.13	0.41	0.32		
4/18/2017	0.16	0.29	0.32		
5/31/2017	0.13	0.37	0.31		
8/23/2017	0.16	0.55	0.38		
10/12/2017				0.17	0.22
10/13/2017				0.19	0.23
10/14/2017				0.2	0.22
10/15/2017				0.2	0.22
10/16/2017				0.2	0.22
10/17/2017				0.19	0.21
11/16/2017				0.18	0.22
2/13/2018	0.22	0.27	0.38		
2/14/2018				0.18	0.21
5/22/2018	0.17				
5/23/2018			0.38	0.18	0.21
5/24/2018		0.6			
6/12/2018	0.16	0.53	0.39		
10/17/2018	0.16	0.63	0.39		
11/19/2018	0.18	0.31	0.36		
11/20/2018				0.19	0.21
4/10/2019	0.262	0.273	0.384		
5/14/2019	0.17	0.281	0.335		
5/15/2019				0.169	0.192
10/8/2019	0.164	0.225		0.183	
10/9/2019					0.189
10/10/2019			0.304		
10/16/2019	0.114	0.106	0.302		
4/6/2020	0.207	0.314	0.368		
4/8/2020				0.153	0.192
7/13/2020	0.132	0.13			
7/14/2020			0.33	0.193	
7/15/2020					0.196
2/22/2021	0.209	0.246	0.357		
2/23/2021				0.2	0.208
7/12/2021	0.196	0.287	0.35		
7/20/2021				0.286	0.262
1/25/2022	0.204	0.325	0.364		
1/31/2022				0.173	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
2/1/2022					0.177
7/5/2022	0.2	0.386	0.362		
7/6/2022				0.208	0.173
2/20/2023	0.267	0.379			
2/21/2023			0.415	0.216	0.212

Time Series

Constituent: Lead (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.000203		<0.000203		
4/27/2016		<0.000203			
4/28/2016				<0.005	
6/20/2016	<0.000203				
6/22/2016			<0.000203	<0.005	
6/23/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016			<0.000203		
8/10/2016		<0.000203		<0.005	
8/24/2016	<0.000203				
10/3/2016	<0.000203				
10/4/2016			<0.000203		
10/5/2016		<0.000203		<0.005	
10/26/2016	<0.000203				
11/21/2016	<0.000203	<0.000203	<0.000203		
11/22/2016				<0.005	
1/17/2017	<0.000203	<0.000203	<0.000203		
1/18/2017				<0.005	
3/21/2017		<0.000203	<0.000203	<0.005	
3/22/2017	<0.000203				
4/18/2017	<0.000203				
5/30/2017	<0.000203		<0.000203		
5/31/2017		<0.000203		<0.005	
2/13/2018	<0.000203				
2/14/2018			<0.000203		
2/15/2018		<0.000203		<0.005	
5/22/2018	<0.000203		<0.000203		
5/24/2018		<0.000203		<0.005	
6/12/2018	<0.000203				
10/17/2018	<0.000203				
11/19/2018	<0.000203	<0.000203		<0.005	
11/20/2018			<0.000203		
3/12/2019					<0.000203
4/10/2019	<0.000203				
5/14/2019	<0.000203				
5/15/2019		<0.000203	<0.000203	<0.005	
10/8/2019	<0.000203				
10/9/2019		<0.000203		<0.005	
10/10/2019			0.00145 (J)		<0.000203
10/16/2019	<0.000203				
4/6/2020	<0.000203		<0.000203	<0.005	<0.000203
4/8/2020		<0.000203			
7/13/2020	<0.000203		<0.000203	<0.005	<0.000203
7/14/2020		<0.000203			
2/22/2021	<0.000203				
2/23/2021		<0.000203			
2/24/2021			<0.000203	0.000178 (J)	<0.000203
7/12/2021	<0.000203				
7/20/2021		8E-05 (J)		0.00023	<0.000203
7/21/2021			<0.000203		
1/25/2022	<0.000203				
2/1/2022		<0.000203	<0.000203	0.0003	<0.000203

Time Series

Constituent: Lead (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.000203		<0.000203	0.000185 (J)	<0.000203
7/6/2022		<0.000203			
2/20/2023	<0.000203				
2/21/2023			<0.000203		
2/22/2023		0.000155 (J)		0.000214	<0.000203

Time Series

Constituent: Lead (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.000203	<0.000203	<0.000203		
4/27/2016				<0.000203	<0.000203
6/20/2016	<0.000203		<0.000203		
6/21/2016				<0.000203	<0.000203
6/22/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016		<0.000203	<0.000203		
8/24/2016	<0.000203	<0.000203	<0.000203		
10/3/2016	<0.000203		<0.000203		
10/4/2016		<0.000203			
10/26/2016	<0.000203	<0.000203	<0.000203		
11/21/2016	<0.000203	<0.000203	<0.000203		
1/17/2017	<0.000203				
1/18/2017		<0.000203	<0.000203		
3/22/2017	<0.000203	<0.000203	<0.000203		
4/18/2017	<0.000203	<0.000203	<0.000203		
5/31/2017	<0.000203	<0.000203	<0.000203		
10/12/2017				<0.000203	<0.000203
10/13/2017				<0.000203	<0.000203
10/14/2017				<0.000203	<0.000203
10/15/2017				<0.000203	<0.000203
10/16/2017				<0.000203	<0.000203
10/17/2017				<0.000203	<0.000203
2/13/2018	<0.000203	<0.000203	<0.000203		
2/14/2018				<0.000203	<0.000203
5/22/2018	<0.000203				
5/23/2018			<0.000203	<0.000203	<0.000203
5/24/2018		<0.000203			
6/12/2018	<0.000203	<0.000203	<0.000203		
10/17/2018	<0.000203	0.00102 (J)	<0.000203		
11/19/2018	<0.000203	0.00692 (o)	<0.000203		
11/20/2018				<0.000203	<0.000203
4/10/2019	<0.000203	<0.000203	<0.000203		
5/14/2019	<0.000203	<0.000203	<0.000203		
5/15/2019				<0.000203	<0.000203
10/8/2019	<0.000203	<0.000203		<0.000203	
10/9/2019					<0.000203
10/10/2019			<0.000203		
10/16/2019	<0.000203	0.00108 (J)	<0.000203		
4/6/2020	<0.000203	<0.000203	<0.000203		
4/8/2020				<0.000203	<0.000203
7/13/2020	<0.000203	<0.000203			
7/14/2020			<0.000203	<0.000203	
7/15/2020					<0.000203
2/22/2021	<0.000203	8.8E-05 (J)	<0.000203		
2/23/2021				<0.000203	<0.000203
7/12/2021	<0.000203	8E-05 (J)	<0.000203		
7/20/2021				<0.000203	9E-05 (J)
1/25/2022	<0.000203	<0.000203	<0.000203		
1/31/2022				<0.000203	
2/1/2022					9E-05 (J)
7/5/2022	<0.000203	7.3E-05 (J)	<0.000203		

Time Series

Constituent: Lead (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.000203	0.000109 (J)
2/20/2023	<0.000203	<0.000203			
2/21/2023			<0.000203	<0.000203	8.8E-05 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.0264 (J)		0.212		
4/27/2016		0.435			
4/28/2016				0.0735	
6/20/2016	0.0246 (J)				
6/22/2016			0.232	0.118	
6/23/2016		0.285			
8/8/2016	0.0229 (J)				
8/9/2016			0.204		
8/10/2016		0.231		0.0805	
8/24/2016	0.0236 (J)				
10/3/2016	0.0229 (J)				
10/4/2016			0.198		
10/5/2016		0.231		0.0757	
10/26/2016	0.0227 (J)				
11/21/2016	0.0236 (J)	0.236	0.206		
11/22/2016				0.0828	
1/17/2017	0.0228 (J)	0.3	0.295		
1/18/2017				0.125	
3/21/2017		0.218	0.234	0.093	
3/22/2017	0.0238 (J)				
4/18/2017	0.0242 (J)				
5/30/2017	0.0229 (J)		0.23		
5/31/2017		0.194		0.0787	
2/13/2018	0.0233 (J)				
2/14/2018			0.233		
2/15/2018		0.23		0.104	
5/22/2018	0.0263 (J)		0.24		
5/24/2018		0.192		0.0819	
6/12/2018	0.0251 (J)				
10/17/2018	0.025 (J)				
11/19/2018	0.0241	0.211		0.0816	
11/20/2018			0.248		
3/12/2019					0.275
4/10/2019	0.0285				
5/14/2019	0.026 (J)				
5/15/2019		0.23	0.251	0.0736	
10/8/2019	0.0268				
10/9/2019		0.202		0.0838	
10/10/2019			0.275		0.297
10/16/2019	0.0263				
4/6/2020	0.0278		0.282	0.0786	0.298
4/8/2020		0.23			
7/13/2020	0.028		0.277	0.0784	0.294
7/14/2020		0.255			
2/22/2021	0.0301				
2/23/2021		0.223			
2/24/2021			0.3	0.0949	0.345
7/12/2021	0.0266				
7/20/2021		0.196		0.0769	0.33
7/21/2021			0.271		
1/25/2022	0.0239				
2/1/2022		0.157	0.223	0.0656	0.278

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.0274		0.233	0.0659	0.31
7/6/2022		0.172			
2/20/2023	0.0241				
2/21/2023			0.204		
2/22/2023		0.149		0.0615	0.279

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0353 (J)	0.0964	0.0528		
4/27/2016				0.163	0.171
6/20/2016	0.0583		0.0554		
6/21/2016				0.171	0.181
6/22/2016		0.156			
8/8/2016	0.0627				
8/9/2016		0.122	0.0452 (J)		
8/24/2016	0.0651	0.138	0.0488 (J)		
10/3/2016	0.0622		0.0476 (J)		
10/4/2016		0.0966			
10/26/2016	0.0293 (J)	0.134	0.049 (J)		
11/21/2016	0.0667	0.167	0.0477 (J)		
1/17/2017	0.0636				
1/18/2017		0.237	0.045 (J)		
3/22/2017	0.0464 (J)	0.203	0.0493 (J)		
4/18/2017	0.0446 (J)	0.0764	0.0494 (J)		
5/31/2017	0.0496 (J)	0.218	0.0501		
10/12/2017				0.134	0.182
10/13/2017				0.127	0.189
10/14/2017				0.112	0.177
10/15/2017				0.129	0.191
10/16/2017				0.122	0.189
10/17/2017				0.122	0.184
2/13/2018	0.0615	0.0964	0.0446 (J)		
2/14/2018				0.131	0.183
5/22/2018	0.0465 (J)				
5/23/2018			0.0513	0.129	0.194
5/24/2018		0.145			
6/12/2018	0.0472 (J)	0.194	0.0511		
10/17/2018	0.0633	0.384	0.0532		
11/19/2018	0.0584	0.323	0.0467		
11/20/2018				0.12	0.181
4/10/2019	0.0574	0.0905	0.0504		
5/14/2019	0.0445	0.0828	0.0485		
5/15/2019				0.127	0.16
10/8/2019	0.0677	0.419		0.131	
10/9/2019					0.163
10/10/2019			0.054		
10/16/2019	0.0661	0.337	0.052		
4/6/2020	0.0496	0.0689	0.0519		
4/8/2020				0.117	0.149
7/13/2020	0.0615	0.256			
7/14/2020			0.0543	0.103	
7/15/2020					0.152
2/22/2021	0.0625	0.126	0.0558		
2/23/2021				0.131	0.166
7/12/2021	0.0495	0.0808	0.0533		
7/20/2021				0.096	0.151
1/25/2022	0.051	0.077	0.0433		
1/31/2022				0.0907	
2/1/2022					0.124
7/5/2022	0.0469	0.251	0.0566		

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0926	0.132
2/20/2023	0.0412	0.0649			
2/21/2023			0.0424	0.0932	0.12

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.0005		<0.0005		
4/27/2016		<0.0005			
4/28/2016				<0.0005	
6/20/2016	<0.0005				
6/22/2016			<0.0005	<0.0005	
6/23/2016		<0.0005			
8/8/2016	<0.0005				
8/9/2016			<0.0005		
8/10/2016		<0.0005		<0.0005	
8/24/2016	<0.0005				
10/3/2016	<0.0005				
10/4/2016			<0.0005		
10/5/2016		<0.0005		<0.0005	
10/26/2016	<0.0005				
11/21/2016	<0.0005	<0.0005	<0.0005		
11/22/2016				<0.0005	
1/17/2017	<0.0005	<0.0005	<0.0005		
1/18/2017				<0.0005	
3/21/2017		<0.0005	<0.0005	<0.0005	
3/22/2017	<0.0005				
4/18/2017	<0.0005				
5/30/2017	<0.0005		<0.0005		
5/31/2017		<0.0005		<0.0005	
2/13/2018	<0.0005				
2/14/2018			<0.0005		
2/15/2018		<0.0005		<0.0005	
5/22/2018	<0.0005		<0.0005		
5/24/2018		<0.0005		<0.0005	
6/12/2018	<0.0005				
10/17/2018	<0.0005				
11/19/2018	<0.0005	<0.0005		<0.0005	
11/20/2018			<0.0005		
3/12/2019					<0.0005
4/10/2019	<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		<0.0005	
10/10/2019			<0.0005		<0.0005
10/16/2019	<0.0005				
4/6/2020	<0.0005		<0.0005	<0.0005	<0.0005
4/8/2020		<0.0005			
7/13/2020	<0.0005		<0.0005	<0.0005	<0.0005
7/14/2020		<0.0005			
2/22/2021	<0.0005				
2/23/2021		<0.0005			
2/24/2021			<0.0005	<0.0005	<0.0005
7/12/2021	<0.0005				
7/20/2021		<0.0005		<0.0005	<0.0005
7/21/2021			<0.0005		
1/25/2022	<0.0005				
2/1/2022		<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.0005		<0.0005	<0.0005	<0.0005
7/6/2022		<0.0005			
2/20/2023	<0.0005				
2/21/2023			<0.0005		
2/22/2023		<0.0005		<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.0005	<0.0005	<0.0005		
4/27/2016				<0.0005	<0.0005
6/20/2016	<0.0005		<0.0005		
6/21/2016				<0.0005	<0.0005
6/22/2016		<0.0005			
8/8/2016	<0.0005				
8/9/2016		<0.0005	<0.0005		
8/24/2016	<0.0005	<0.0005	<0.0005		
10/3/2016	<0.0005		<0.0005		
10/4/2016		<0.0005			
10/26/2016	<0.0005	<0.0005	<0.0005		
11/21/2016	<0.0005	<0.0005	<0.0005		
1/17/2017	<0.0005				
1/18/2017		<0.0005	<0.0005		
3/22/2017	<0.0005	<0.0005	<0.0005		
4/18/2017	<0.0005	<0.0005	<0.0005		
5/31/2017	<0.0005	<0.0005	<0.0005		
10/12/2017				<0.0005	<0.0005
10/13/2017				<0.0005	<0.0005
10/14/2017				<0.0005	<0.0005
10/15/2017				<0.0005	<0.0005
10/16/2017				<0.0005	<0.0005
10/17/2017				<0.0005	<0.0005
2/13/2018	<0.0005	<0.0005	<0.0005		
2/14/2018				<0.0005	<0.0005
5/22/2018	<0.0005				
5/23/2018			<0.0005	<0.0005	<0.0005
5/24/2018		<0.0005			
6/12/2018	<0.0005	<0.0005	<0.0005		
10/17/2018	<0.0005	<0.0005	<0.0005		
11/19/2018	<0.0005	<0.0005	<0.0005		
11/20/2018				<0.0005	<0.0005
4/10/2019	<0.0005	<0.0005	<0.0005		
5/14/2019	<0.0005	<0.0005	<0.0005		
5/15/2019				<0.0005	<0.0005
10/8/2019	<0.0005	<0.0005		<0.0005	
10/9/2019					<0.0005
10/10/2019			<0.0005		
10/16/2019	<0.0005	<0.0005	<0.0005		
4/6/2020	<0.0005	<0.0005	<0.0005		
4/8/2020				<0.0005	<0.0005
7/13/2020	<0.0005	<0.0005			
7/14/2020			<0.0005	<0.0005	
7/15/2020					<0.0005
2/22/2021	<0.0005	<0.0005	<0.0005		
2/23/2021				<0.0005	<0.0005
7/12/2021	<0.0005	<0.0005	<0.0005		
7/20/2021				<0.0005	<0.0005
1/25/2022	<0.0005	<0.0005	<0.0005		
1/31/2022				<0.0005	
2/1/2022					<0.0005
7/5/2022	<0.0005	<0.0005	<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.0005	<0.0005
2/20/2023	<0.0005	<0.0005			
2/21/2023			<0.0005	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.000203		<0.01		
4/27/2016		<0.000203			
4/28/2016				<0.01	
6/20/2016	<0.000203				
6/22/2016			<0.01	<0.01	
6/23/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016			<0.01		
8/10/2016		<0.000203		<0.01	
8/24/2016	<0.000203				
10/3/2016	<0.000203				
10/4/2016			<0.01		
10/5/2016		<0.000203		<0.01	
10/26/2016	<0.000203				
11/21/2016	<0.000203	<0.000203	<0.01		
11/22/2016				<0.01	
1/17/2017	<0.000203	<0.000203	<0.01		
1/18/2017				<0.01	
3/21/2017		<0.000203	<0.01	<0.01	
3/22/2017	<0.000203				
4/18/2017	<0.000203				
5/30/2017	<0.000203		<0.01		
5/31/2017		<0.000203		<0.01	
2/13/2018	<0.000203				
2/14/2018			<0.01		
2/15/2018		<0.000203		<0.01	
5/22/2018	<0.000203		<0.01		
5/24/2018		<0.000203		<0.01	
6/12/2018	<0.000203				
10/17/2018	<0.000203				
11/19/2018	<0.000203	<0.000203		<0.01	
11/20/2018			<0.01		
3/12/2019					<0.01
4/10/2019	<0.000203				
5/14/2019	<0.000203				
5/15/2019		<0.000203	<0.01	<0.01	
10/8/2019	<0.000203				
10/9/2019		<0.000203		<0.01	
10/10/2019			<0.01		<0.01
10/16/2019	<0.000203				
4/6/2020	<0.000203		<0.01	<0.01	<0.01
4/8/2020		<0.000203			
7/13/2020	<0.000203		<0.01	<0.01	<0.01
7/14/2020		<0.000203			
2/22/2021	<0.000203				
2/23/2021		<0.000203			
2/24/2021			0.00148	8.8E-05 (J)	0.00174
7/12/2021	<0.000203				
7/20/2021		8E-05 (J)		0.00017 (J)	0.00188
7/21/2021			0.0013		
1/25/2022	<0.000203				
2/1/2022		<0.000203	0.00181	0.00019 (J)	0.00215

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.000203		0.00151	0.000402	0.00234
7/6/2022		<0.000203			
2/20/2023	<0.000203				
2/21/2023			0.00138		
2/22/2023		0.000111 (J)		0.000131 (J)	0.00304

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.000203	<0.000203	<0.01		
4/27/2016				<0.01	<0.01
6/20/2016	<0.000203		<0.01		
6/21/2016				<0.01	<0.01
6/22/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016		<0.000203	<0.01		
8/24/2016	<0.000203	<0.000203	<0.01		
10/3/2016	<0.000203		<0.01		
10/4/2016		<0.000203			
10/26/2016	<0.000203	<0.000203	<0.01		
11/21/2016	<0.000203	<0.000203	<0.01		
1/17/2017	<0.000203				
1/18/2017		<0.000203	<0.01		
3/22/2017	<0.000203	<0.000203	<0.01		
4/18/2017	<0.000203	<0.000203	<0.01		
5/31/2017	<0.000203	<0.000203	<0.01		
10/12/2017				<0.01	<0.01
10/13/2017				<0.01	<0.01
10/14/2017				<0.01	<0.01
10/15/2017				<0.01	<0.01
10/16/2017				<0.01	<0.01
10/17/2017				<0.01	<0.01
2/13/2018	<0.000203	<0.000203	<0.01		
2/14/2018				<0.01	<0.01
5/22/2018	<0.000203				
5/23/2018			<0.01	<0.01	<0.01
5/24/2018		<0.000203			
6/12/2018	<0.000203	<0.000203	<0.01		
10/17/2018	<0.000203	<0.000203	<0.01		
11/19/2018	<0.000203	<0.000203	<0.01		
11/20/2018				<0.01	<0.01
4/10/2019	<0.000203	<0.000203	<0.01		
5/14/2019	<0.000203	<0.000203	<0.01		
5/15/2019				<0.01	<0.01
10/8/2019	<0.000203	<0.000203		<0.01	
10/9/2019					<0.01
10/10/2019			<0.01		
10/16/2019	<0.000203	<0.000203	<0.01		
4/6/2020	<0.000203	<0.000203	<0.01		
4/8/2020				<0.01	<0.01
7/13/2020	<0.000203	<0.000203			
7/14/2020			<0.01	<0.01	
7/15/2020					<0.01
2/22/2021	<0.000203	<0.000203	0.000131 (J)		
2/23/2021				0.00107	0.0129
7/12/2021	<0.000203	<0.000203	0.00014 (J)		
7/20/2021				0.00086	0.00033
1/25/2022	<0.000203	8E-05 (J)	0.00011 (J)		
1/31/2022				0.00093	
2/1/2022					0.00031
7/5/2022	<0.000203	<0.000203	0.000108 (J)		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.000846	0.000351
2/20/2023	<0.000203	<0.000203			
2/21/2023			0.00015 (J)	0.00103	0.000338

Time Series

Constituent: pH (SU) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	5.2		6.49		
4/27/2016		5.8			
4/28/2016				5.78	
6/20/2016	5.18				
6/22/2016			6.51	6.41	
6/23/2016		6.38			
8/8/2016	5.12				
8/9/2016			6.49		
8/10/2016		6.47		5.82	
10/3/2016	5.21 (D)				
10/4/2016			6.51 (D)		
10/5/2016		6.42 (D)		5.82 (D)	
10/26/2016	5.2				
11/21/2016	5.19 (D)	6.38	6.48		
11/22/2016				5.86	
1/17/2017	5.17 (D)	6.35	6.46		
1/18/2017				5.9	
3/21/2017		6.38	6.47	5.85	
3/22/2017	5.2 (D)				
4/18/2017	5.2				
5/30/2017	5.14 (D)		6.48		
5/31/2017		6.4		5.84	
8/23/2017	5.12 (D)	6.33	6.48	5.91	
2/13/2018	5.18				
2/14/2018			6.6		
2/15/2018		6.26		5.98	
5/22/2018	5.2		6.54		
5/24/2018		6.45		5.86	
6/12/2018	5.15				
10/17/2018	5.12				
11/19/2018	5.09	6.3		5.88	
11/20/2018			6.61		
3/12/2019					6.7
4/10/2019	5.11				
5/14/2019	5.19				
5/15/2019		6.37	6.62	5.82	
10/8/2019	5.12				
10/9/2019		6.5		5.85	
10/10/2019			6.69		6.77
10/16/2019	5.16				
4/6/2020	5.21		6.72	5.81	6.79
4/8/2020		6.36			
7/13/2020	5.14		6.71	5.62	6.61
7/14/2020		6.42			
2/22/2021	5.06				
2/23/2021		6.45			
2/24/2021			6.67	5.83	6.83
7/12/2021	5.13				
7/20/2021		6.46		5.53	6.84
7/21/2021			6.74		
1/25/2022	5.11				
2/1/2022		6.62	6.83	5.64	6.68

Time Series

Constituent: pH (SU) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	5.01		6.75	5.82	6.92
7/6/2022		6.64			
2/20/2023	5.07				
2/21/2023			6.77		
2/22/2023		6.67		5.72	6.95

Time Series

Constituent: pH (SU) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	5.94	5.56	6.22		
4/27/2016				6.6	6.55
6/20/2016	5.96		6.21		
6/21/2016				6.62	6.47
6/22/2016		5.57			
8/8/2016	5.88				
8/9/2016		5.67	6.11		
8/24/2016		5.63	6.11		
10/3/2016	5.91 (D)		6.13 (D)		
10/4/2016		5.69 (D)			
10/26/2016	5.84	5.56	6.12		
11/21/2016	5.82 (D)	5.42 (D)	6.09 (D)		
1/17/2017	5.87 (D)				
1/18/2017		5.11 (D)	6.09 (D)		
3/22/2017	6.01 (D)	4.52 (D)	6.15 (D)		
4/18/2017	6.02	5.84	6.19		
5/31/2017	5.85 (D)	4.56 (D)	6.13 (D)		
8/23/2017	5.89 (D)	4.77 (D)	6.12 (D)		
10/12/2017				6.64	6.5
10/13/2017				6.64	6.51
10/14/2017				6.66	6.53
10/15/2017				6.67	6.53
10/16/2017				6.67	6.54
10/17/2017				6.66	6.54
11/16/2017				6.62	6.51
2/13/2018	6.21	5.67	6.22		
2/14/2018				6.67	6.55
5/22/2018	6.04				
5/23/2018			6.21	6.63	6.52
5/24/2018		5.19			
6/12/2018	5.95	4.79	6.16		
10/17/2018	5.9	4.75	6.12		
11/19/2018	6.03	3.77 (Eo)	6.16		
11/20/2018				6.61	6.58
4/10/2019	6.1	5.54	6.14		
5/14/2019	6.07	5.71	6.23		
5/15/2019				6.61	6.6
10/8/2019	5.96	4.98		6.52	
10/9/2019					6.67
10/10/2019			6.15		
10/16/2019	5.98	4.51	6.19		
4/6/2020	6.21	5.91	6.35		
4/8/2020				6.64	6.7
7/13/2020	5.84	5.16			
7/14/2020			6.2	6.52	
7/15/2020					6.71
2/22/2021	6.1	5.59	6.19		
2/23/2021				6.7	6.73
7/12/2021	6.16	5.86	6.06		
7/20/2021				6.58	6.64
1/25/2022	6.22	5.9	6.3		
1/31/2022				6.48	

Time Series

Constituent: pH (SU) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
2/1/2022					6.77
7/5/2022	6.15	5.34	6.12		
7/6/2022				6.46	6.72
2/20/2023	6.24	6.01			
2/21/2023			6.35	6.72	6.75

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.00261 (J)		<0.001015		
4/27/2016		<0.001015			
4/28/2016				<0.001015	
6/20/2016	0.00242 (J)				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	0.00253 (J)				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.01				
10/3/2016	0.00211 (J)				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.01				
11/21/2016	<0.01	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.01	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		<0.001015	<0.001015	<0.001015	
3/22/2017	0.0022 (J)				
4/18/2017	0.0027 (J)				
5/30/2017	0.00316 (J)		<0.001015		
5/31/2017		<0.001015		<0.001015	
2/13/2018	0.00211 (J)				
2/14/2018			<0.001015		
2/15/2018		0.00272 (J)		<0.001015	
5/22/2018	0.00372 (J)		<0.001015		
5/24/2018		<0.001015		<0.001015	
6/12/2018	0.00409 (J)				
10/17/2018	<0.01				
11/19/2018	<0.01	<0.001015		<0.001015	
11/20/2018			<0.001015		
3/12/2019					<0.001015
4/10/2019	0.00471 (J)				
5/14/2019	0.00316 (J)				
5/15/2019		0.00289 (J)	<0.001015	<0.001015	
10/8/2019	<0.01				
10/9/2019		<0.001015		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.01				
4/6/2020	0.00275 (J)		<0.001015	<0.001015	<0.001015
4/8/2020		<0.001015			
7/13/2020	0.00245 (J)		<0.001015	<0.001015	<0.001015
7/14/2020		0.00273 (J)			
2/22/2021	0.00241				
2/23/2021		0.00217			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	0.0028				
7/20/2021		0.00098 (J)		<0.001015	<0.001015
7/21/2021			<0.001015		
1/25/2022	0.00216				
2/1/2022		<0.001015	<0.001015	0.00051 (J)	<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.00269		<0.001015	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	0.00258				
2/21/2023			<0.001015		
2/22/2023		0.000611 (J)		<0.001015	<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	<0.01	<0.01		
4/27/2016				0.00445 (J)	<0.001015
6/20/2016	<0.001015		<0.01		
6/21/2016				<0.001015	<0.001015
6/22/2016		<0.01			
8/8/2016	<0.001015				
8/9/2016		<0.01	<0.01		
8/24/2016	<0.001015	<0.01	<0.01		
10/3/2016	<0.001015		<0.01		
10/4/2016		<0.01			
10/26/2016	<0.001015	<0.01	<0.01		
11/21/2016	<0.001015	<0.01	<0.01		
1/17/2017	<0.001015				
1/18/2017		<0.01	<0.01		
3/22/2017	<0.001015	0.0141	<0.01		
4/18/2017	<0.001015	0.0158	<0.01		
5/31/2017	<0.001015	0.00632 (J)	<0.01		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	0.0209	0.00403 (J)		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.01	<0.001015	<0.001015
5/24/2018		0.00918 (J)			
6/12/2018	<0.001015	0.00836 (J)	<0.01		
10/17/2018	<0.001015	<0.01	<0.01		
11/19/2018	<0.001015	0.00439 (J)	0.00436 (J)		
11/20/2018				<0.001015	<0.001015
4/10/2019	0.00322 (J)	0.0113	<0.01		
5/14/2019	<0.001015	0.0119	0.00201 (J)		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	0.00256 (J)		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.01		
10/16/2019	<0.001015	0.00286 (J)	<0.01		
4/6/2020	<0.001015	0.01	0.00284 (J)		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	0.0134			
7/14/2020			<0.01	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	0.0181	0.00222		
2/23/2021				<0.001015	<0.001015
7/12/2021	<0.001015	0.0133	0.00155		
7/20/2021				<0.001015	<0.001015
1/25/2022	<0.001015	0.0154	0.00224		
1/31/2022				<0.001015	
2/1/2022					<0.001015
7/5/2022	<0.001015	0.0205	0.000961 (J)		

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.000677 (J)	<0.001015
2/20/2023	<0.001015	0.0123			
2/21/2023			0.00266	<0.001015	<0.001015

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	1490		1750		
4/27/2016		1250			
4/28/2016				2360	
6/20/2016	1420				
6/22/2016			1720	1960	
6/23/2016		1010			
8/8/2016	1460				
8/9/2016			1740		
8/10/2016		992		2300	
8/24/2016	1450				
10/3/2016	1460				
10/4/2016			1750		
10/5/2016		1010		2330	
10/26/2016	1330				
11/21/2016	1420	834	1690		
11/22/2016				2220	
1/17/2017	1350	700	1670		
1/18/2017				1950	
3/21/2017		660	1900	2400	
3/22/2017	1500				
4/18/2017	1300				
5/30/2017	1400		1700		
5/31/2017		700		2200	
8/23/2017	1500	700	1700	2100	
5/22/2018	2100 (o)		2200		
5/24/2018		560		2300	
6/12/2018	1500				
10/17/2018	1400				
11/19/2018	1300	720		2100	
11/20/2018			1400		
3/12/2019					1370
4/10/2019	1700				
5/14/2019	1560				
5/15/2019		780	1510	2800	
10/8/2019	1540				
10/9/2019		748		2550	
10/10/2019			719		1490
10/16/2019	1680				
4/6/2020	1530		1400	2580	1360
4/8/2020		658			
7/13/2020	1450		1300	2610	1280
7/14/2020		845			
2/22/2021	1400				
2/23/2021		747			
2/24/2021			1330	2280	1220
7/12/2021	1560				
7/20/2021		665		2500	1220
7/21/2021			1420		
1/25/2022	1430				
2/1/2022		707	1350	2230	1220
7/5/2022	1600		1250	2430	1300
7/6/2022		635			

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	1520				
2/21/2023			1290		
2/22/2023		581		2440	1340

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	745	1890	2260		
4/27/2016				1050	1550
6/20/2016	964		2500		
6/21/2016				1410	1470
6/22/2016		2100			
8/8/2016	1100				
8/9/2016		2050	2750		
8/24/2016	1130	2190	2770		
10/3/2016	1140		3060		
10/4/2016		1950			
10/26/2016	1060	1980	2650		
11/21/2016	1100	2060	2720		
1/17/2017	1160				
1/18/2017		2620	2650		
3/22/2017	900	3200	2700		
4/18/2017	870	2500	2400		
5/31/2017	1100	2800	2700		
8/23/2017	920	2600	2700		
10/12/2017				1400	1400
10/13/2017				1400	1600
10/14/2017				1300	1400
10/15/2017				1300	1400
10/16/2017				1300	1400
10/17/2017				1300	1400
11/16/2017				1300	1400
5/22/2018	1200				
5/23/2018			2400	1900 (o)	2100 (o)
5/24/2018		2700			
6/12/2018	860	2500	2600		
10/17/2018	970	2700	2600		
11/19/2018	1000	3000	2400		
11/20/2018				1100	1400
4/10/2019	889	2460	2090		
5/14/2019	948	2460	2240		
5/15/2019				1510	1640
10/8/2019	1230	2950		1570	
10/9/2019					1550
10/10/2019			2690		
10/16/2019	1170	2820	3050		
4/6/2020	786	1670	1810		
4/8/2020				1270	1380
7/13/2020	843	2130			
7/14/2020			1970	1330	
7/15/2020					1410
2/22/2021	864	3040	2040		
2/23/2021				1320	1420
7/12/2021	763	2380	1930		
7/20/2021				1170	1500
1/25/2022	842	2550	1930		
1/31/2022				1370	
2/1/2022					1500
7/5/2022	819	3110	2380		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				1330	1460
2/20/2023	767	2110			
2/21/2023			1930	1450	1510

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.000203		<0.000203		
4/27/2016		<0.000203			
4/28/2016				<0.000203	
6/20/2016	<0.000203				
6/22/2016			<0.000203	<0.000203	
6/23/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016			<0.000203		
8/10/2016		<0.000203		<0.000203	
8/24/2016	<0.000203				
10/3/2016	<0.000203				
10/4/2016			<0.000203		
10/5/2016		<0.000203		<0.000203	
10/26/2016	<0.000203				
11/21/2016	<0.000203	<0.000203	<0.000203		
11/22/2016				<0.000203	
1/17/2017	<0.000203	<0.000203	<0.000203		
1/18/2017				<0.000203	
3/21/2017		<0.000203	<0.000203	<0.000203	
3/22/2017	<0.000203				
4/18/2017	<0.000203				
5/30/2017	<0.000203		<0.000203		
5/31/2017		<0.000203		<0.000203	
2/13/2018	<0.000203				
2/14/2018			<0.000203		
2/15/2018		<0.000203		<0.000203	
5/22/2018	<0.000203		<0.000203		
5/24/2018		<0.000203		<0.000203	
6/12/2018	<0.000203				
10/17/2018	<0.000203				
11/19/2018	<0.000203	<0.000203		<0.000203	
11/20/2018			<0.000203		
3/12/2019					<0.000203
4/10/2019	<0.000203				
5/14/2019	<0.000203				
5/15/2019		<0.000203	<0.000203	<0.000203	
10/8/2019	<0.000203				
10/9/2019		<0.000203		<0.000203	
10/10/2019			<0.000203		<0.000203
10/16/2019	<0.000203				
4/6/2020	<0.000203		<0.000203	<0.000203	<0.000203
4/8/2020		<0.000203			
7/13/2020	<0.000203		<0.000203	<0.000203	<0.000203
7/14/2020		<0.000203			
2/22/2021	<0.000203				
2/23/2021		<0.000203			
2/24/2021			<0.000203	<0.000203	<0.000203
7/12/2021	<0.000203				
7/20/2021		<0.000203		<0.000203	<0.000203
7/21/2021			<0.000203		
1/25/2022	<0.000203				
2/1/2022		<0.000203	<0.000203	0.0001 (J)	<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.000203		<0.000203	<0.000203	<0.000203
7/6/2022		<0.000203			
2/20/2023	<0.000203				
2/21/2023			<0.000203		
2/22/2023		<0.000203		0.000112 (J)	<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.000203	0.000205 (J)	<0.000203		
4/27/2016				<0.000203	<0.000203
6/20/2016	<0.000203		<0.000203		
6/21/2016				<0.000203	<0.000203
6/22/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016		<0.000203	<0.000203		
8/24/2016	<0.000203	<0.000203	<0.000203		
10/3/2016	<0.000203		<0.000203		
10/4/2016		<0.000203			
10/26/2016	<0.000203	0.000209 (J)	<0.000203		
11/21/2016	<0.000203	<0.000203	<0.000203		
1/17/2017	<0.000203				
1/18/2017		<0.000203	<0.000203		
3/22/2017	<0.000203	<0.000203	<0.000203		
4/18/2017	<0.000203	<0.000203	<0.000203		
5/31/2017	<0.000203	<0.000203	<0.000203		
10/12/2017				<0.000203	<0.000203
10/13/2017				<0.000203	<0.000203
10/14/2017				<0.000203	<0.000203
10/15/2017				<0.000203	<0.000203
10/16/2017				<0.000203	<0.000203
10/17/2017				<0.000203	<0.000203
2/13/2018	<0.000203	<0.000203	<0.000203		
2/14/2018				<0.000203	<0.000203
5/22/2018	<0.000203				
5/23/2018			<0.000203	<0.000203	<0.000203
5/24/2018		<0.000203			
6/12/2018	<0.000203	<0.000203	<0.000203		
10/17/2018	<0.000203	<0.000203	<0.000203		
11/19/2018	<0.000203	0.000226 (J)	<0.000203		
11/20/2018				<0.000203	<0.000203
4/10/2019	<0.000203	<0.000203	<0.000203		
5/14/2019	<0.000203	<0.000203	<0.000203		
5/15/2019				<0.000203	<0.000203
10/8/2019	<0.000203	<0.000203		<0.000203	
10/9/2019					<0.000203
10/10/2019			<0.000203		
10/16/2019	<0.000203	<0.000203	<0.000203		
4/6/2020	<0.000203	<0.000203	<0.000203		
4/8/2020				<0.000203	<0.000203
7/13/2020	<0.000203	<0.000203			
7/14/2020			<0.000203	<0.000203	
7/15/2020					<0.000203
2/22/2021	<0.000203	<0.000203	<0.000203		
2/23/2021				<0.000203	<0.000203
7/12/2021	<0.000203	<0.000203	<0.000203		
7/20/2021				<0.000203	<0.000203
1/25/2022	<0.000203	<0.000203	<0.000203		
1/31/2022				<0.000203	
2/1/2022					<0.000203
7/5/2022	<0.000203	<0.000203	<0.000203		

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.000203	<0.000203
2/20/2023	<0.000203	<0.000203			
2/21/2023			<0.000203	<0.000203	<0.000203

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	2080		2800		
4/27/2016		1940			
4/28/2016				3730	
6/20/2016	2060				
6/22/2016			2550	2760	
6/23/2016		1680			
8/8/2016	2070				
8/9/2016			2860		
8/10/2016		1660		3710	
8/24/2016	2040				
10/3/2016	2110				
10/4/2016			2800		
10/5/2016		1640		3580	
10/26/2016	2000				
11/21/2016	2070	1390	2920		
11/22/2016				3400	
1/17/2017	1930	1300	2750		
1/18/2017				3360	
3/21/2017		1170	2750	3320	
3/22/2017	2060				
4/18/2017	2140				
5/30/2017	2240		2890		
5/31/2017		1210		3440	
8/23/2017	2160	1160	2760	3250	
5/22/2018	2380		2610		
5/24/2018		1100		3300	
6/12/2018	2400				
10/17/2018	2220				
11/19/2018	2360	1220		3400	
11/20/2018			2480		
3/12/2019					2440
4/10/2019	2630				
5/14/2019	2340				
5/15/2019		1230	2560	3890	
10/8/2019	2330				
10/9/2019		1120		4090	
10/10/2019			2460		2360
10/16/2019	3650 (o)				
4/6/2020	2240		2430	4060	2310
4/8/2020		1120			
7/13/2020	2240		2400	4460	2240
7/14/2020		1270			
2/22/2021	2230				
2/23/2021		1110			
2/24/2021			2370	3810	2240
7/12/2021	2210				
7/20/2021		1080		3680	2190
7/21/2021			2210		
1/25/2022	2150				
2/1/2022		1050	2200	3610	2110
7/5/2022	2100		2020	3690	2100
7/6/2022		967			

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	2280				
2/21/2023			2160		
2/22/2023		991		3880	2240 (D)

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	1260	2720	3300		
4/27/2016				1640	2480
6/20/2016	1620		3870		
6/21/2016				2460	2360
6/22/2016		3250			
8/8/2016	1740				
8/9/2016		3050	4140		
8/24/2016	1720	3080	4190		
10/3/2016	1800		4190		
10/4/2016		2900			
10/26/2016	1800	2940	4400		
11/21/2016	1740	3090	4230		
1/17/2017	1960				
1/18/2017		4020	4120		
3/22/2017	1510	4180	3980		
4/18/2017	1580	4440	3880		
5/31/2017	1730	3970	4210		
8/23/2017	1550	4050	3990		
10/12/2017				2460	2530
10/13/2017				2420	2740
10/14/2017				2320	2630
10/15/2017				1150	2530
10/16/2017				2320	2740
10/17/2017				2360	2650
11/16/2017				2460	2650
5/22/2018	1500				
5/23/2018			3740	2390	2750
5/24/2018		3680			
6/12/2018	1550	3820	4080		
10/17/2018	1740	4730	4250		
11/19/2018	1990	4710	3920		
11/20/2018				2090	2520
4/10/2019	1250	3680	3280		
5/14/2019	1480	3580	3130		
5/15/2019				2310	2540
10/8/2019	1840	4720		2340	
10/9/2019					2590
10/10/2019			4000		
10/16/2019	1830	4210	4060		
4/6/2020	1440	2630	2820		
4/8/2020				2230	2450
7/13/2020	1540	3650			
7/14/2020			3310	2210	
7/15/2020					2460
2/22/2021	1620	4670	3190		
2/23/2021				2320	2550
7/12/2021	1390	3510	3000		
7/20/2021				2110	2420
1/25/2022	1500	3950	3180		
1/31/2022				2140	
2/1/2022					2420
7/5/2022	1250	4220	3240		

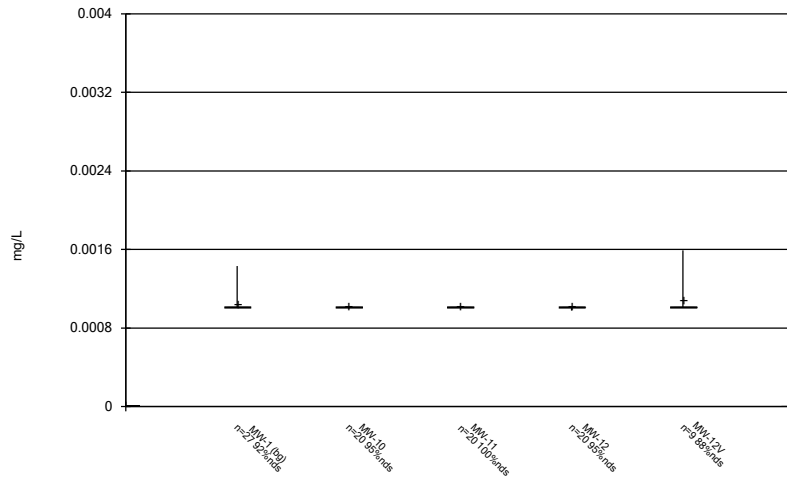
Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:19 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				2110	2320
2/20/2023	1420	3230			
2/21/2023			3160	2220	2370

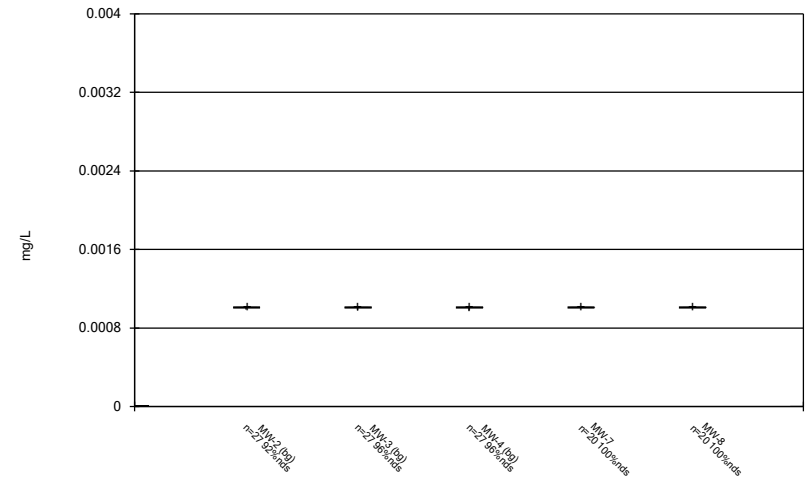
FIGURE B.

Box & Whiskers Plot



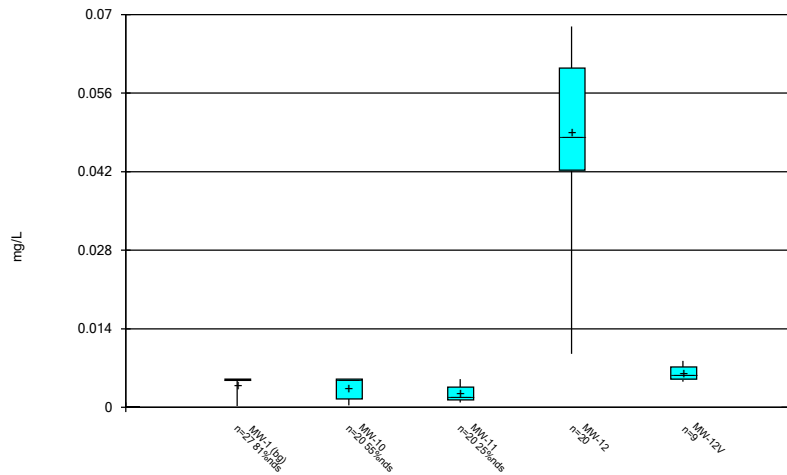
Constituent: Antimony Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



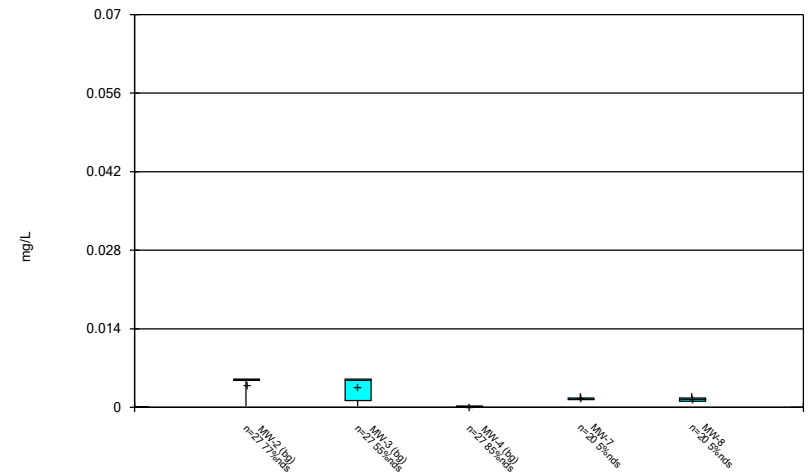
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



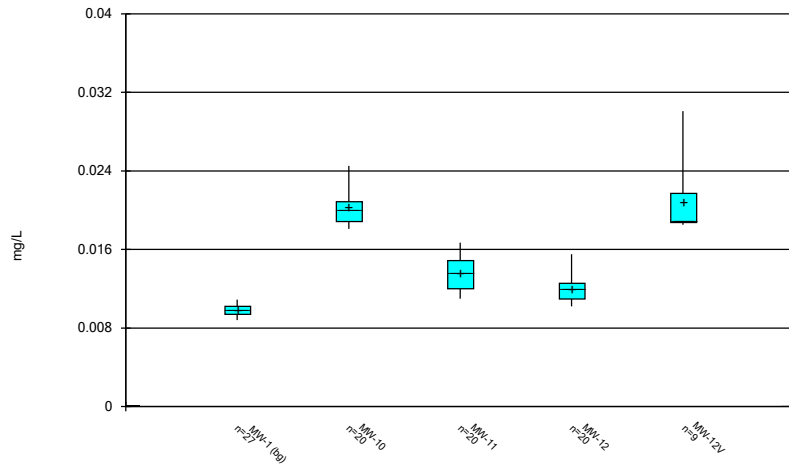
Constituent: Arsenic Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



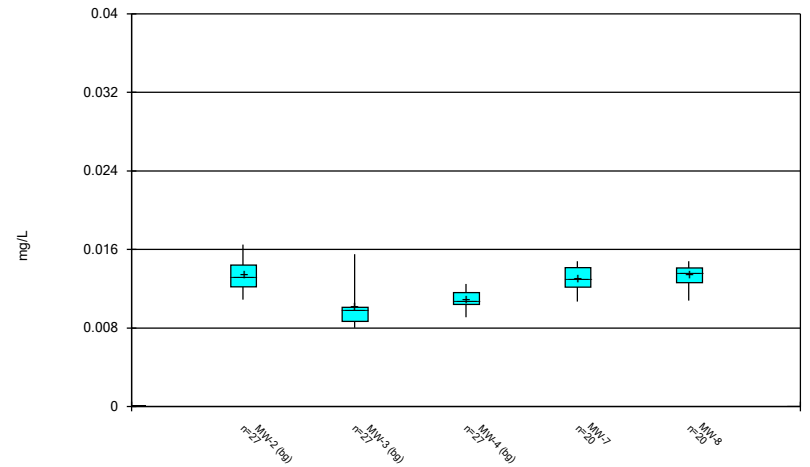
Constituent: Arsenic Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



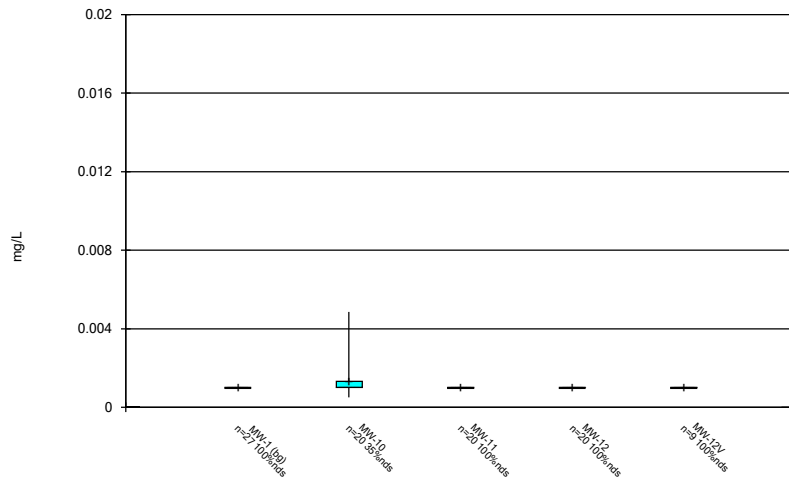
Constituent: Barium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



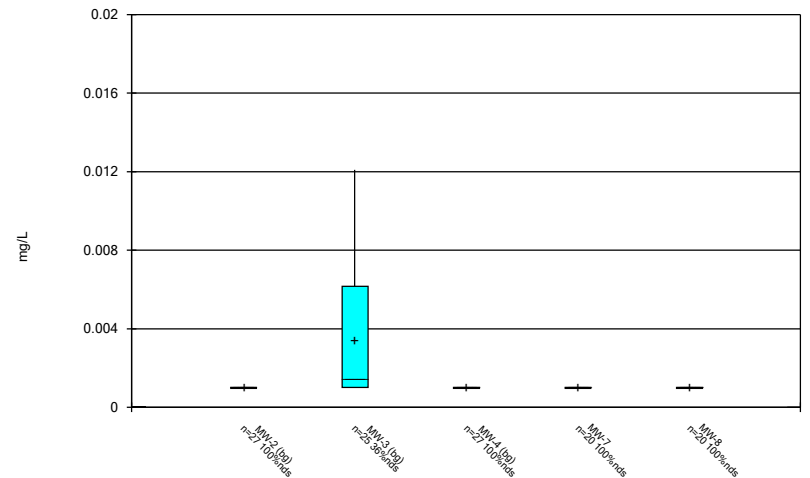
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



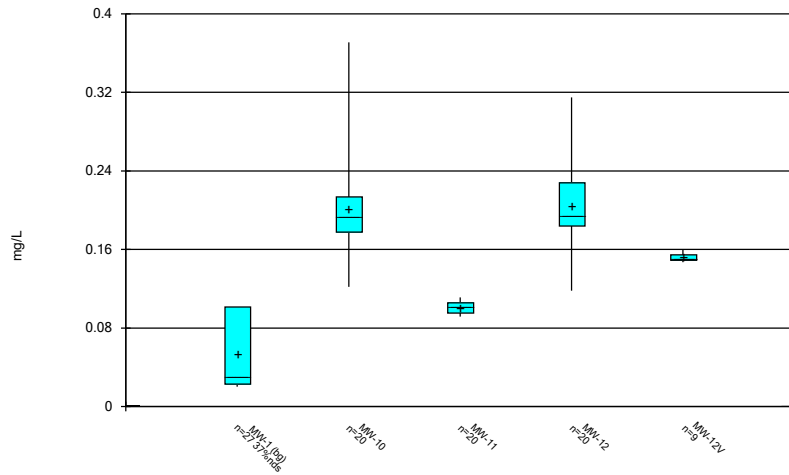
Constituent: Beryllium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



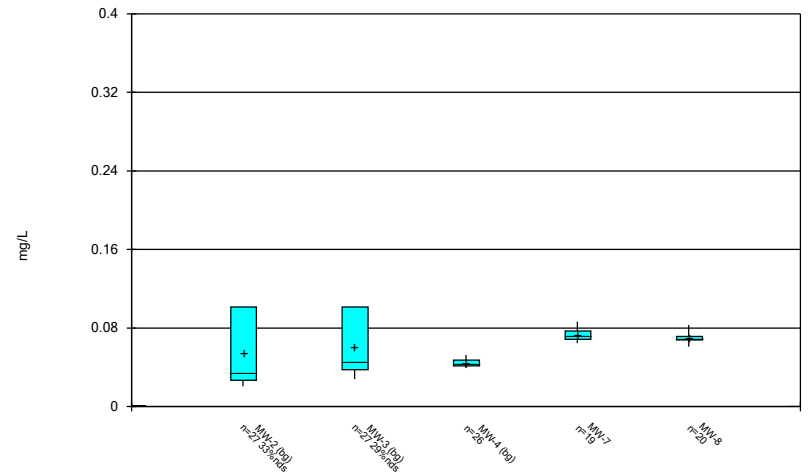
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



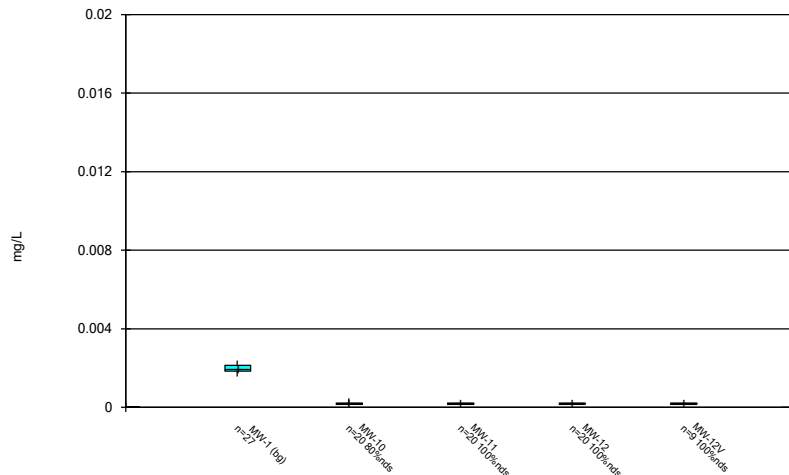
Constituent: Boron Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



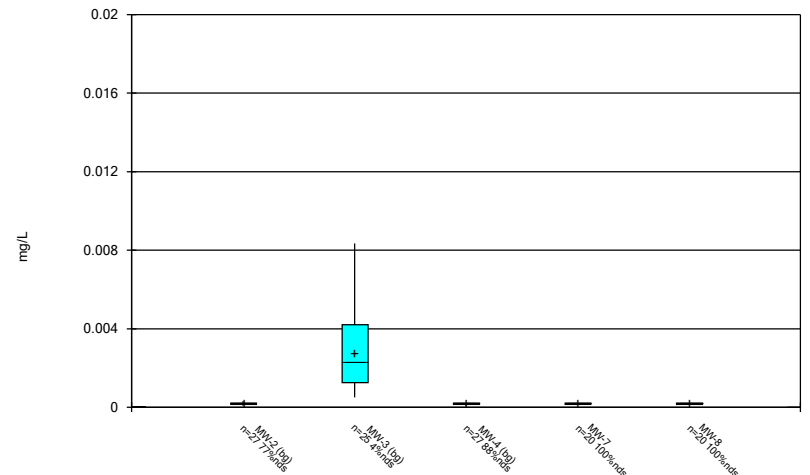
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



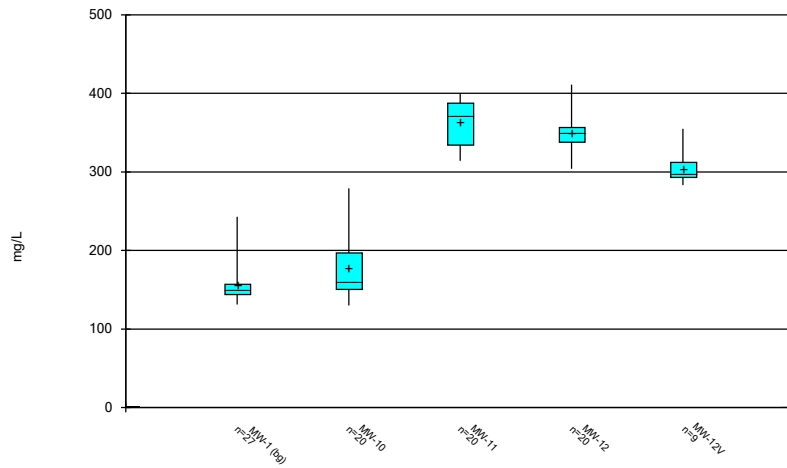
Constituent: Cadmium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



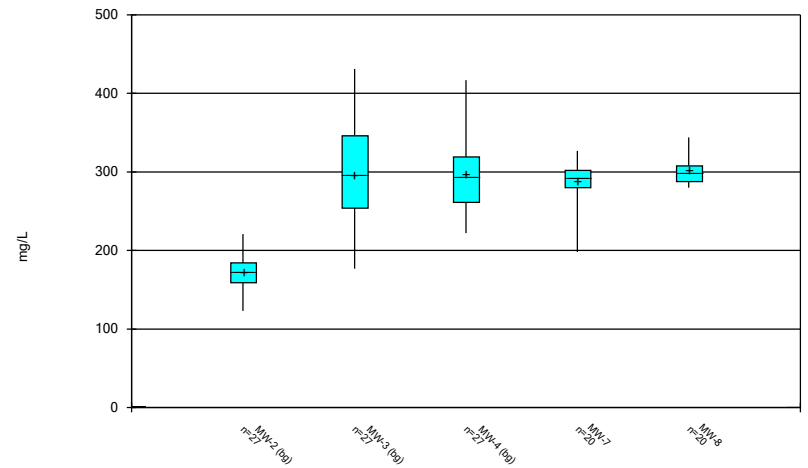
Constituent: Cadmium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



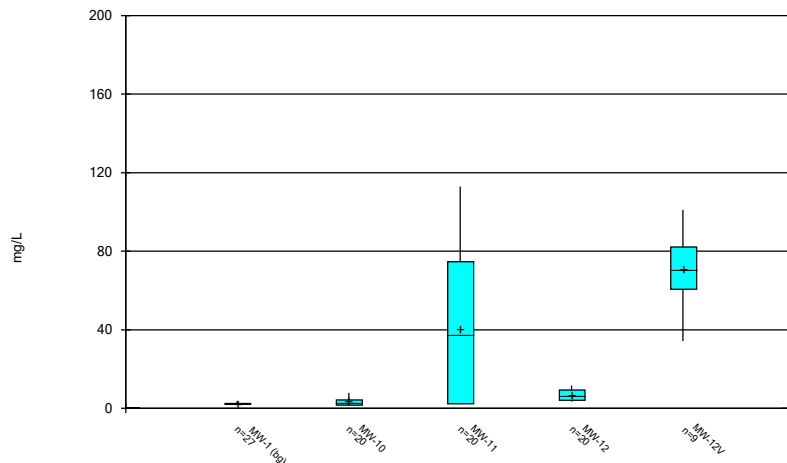
Constituent: Calcium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



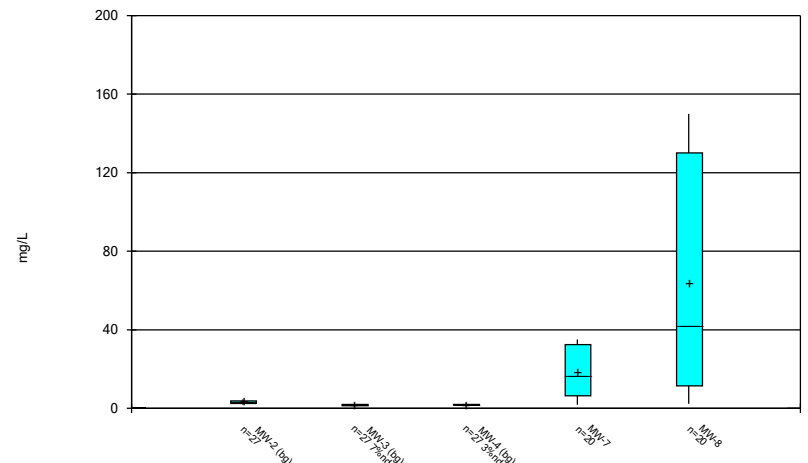
Constituent: Calcium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



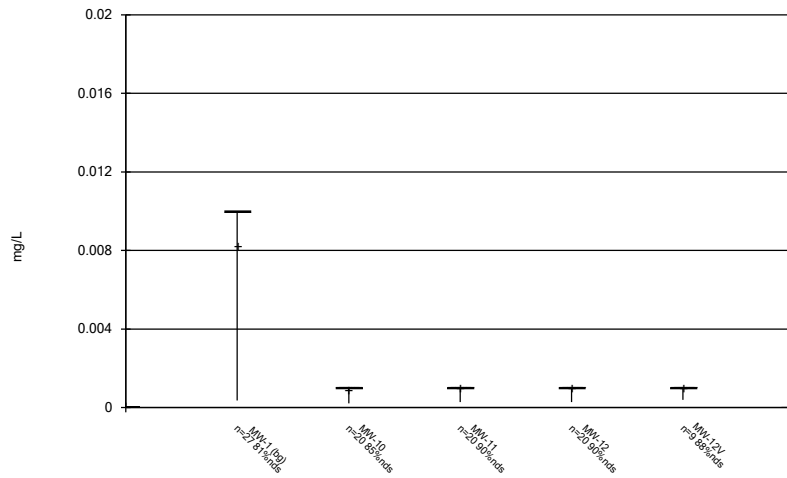
Constituent: Chloride Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



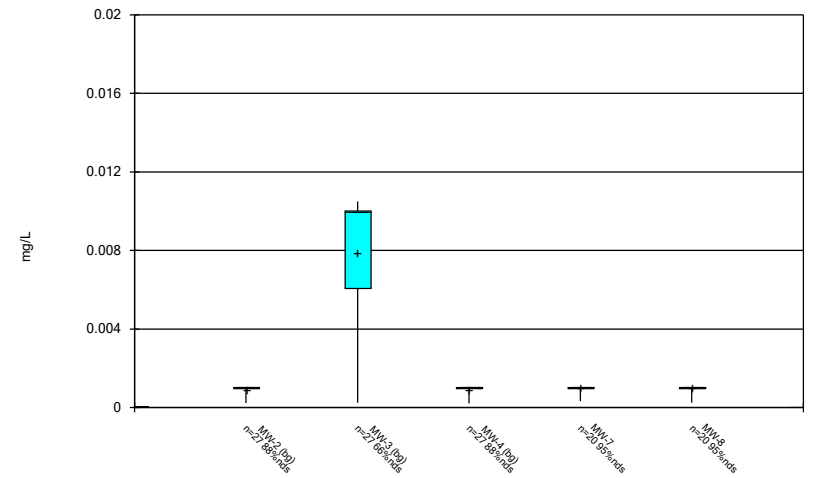
Constituent: Chloride Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



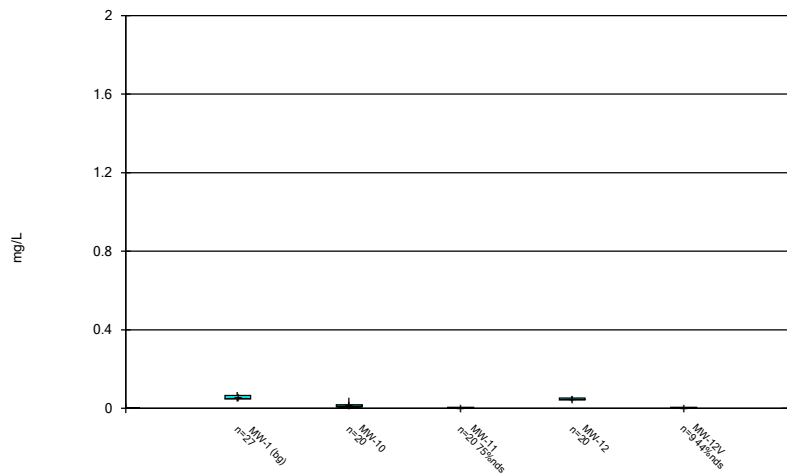
Constituent: Chromium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



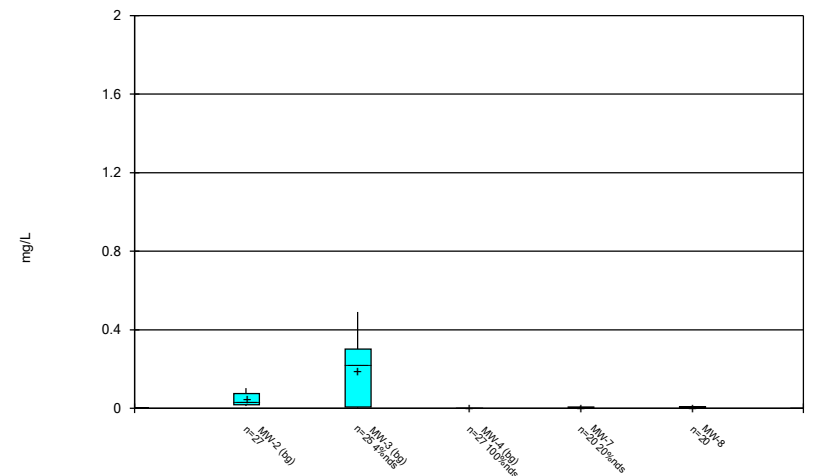
Constituent: Chromium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



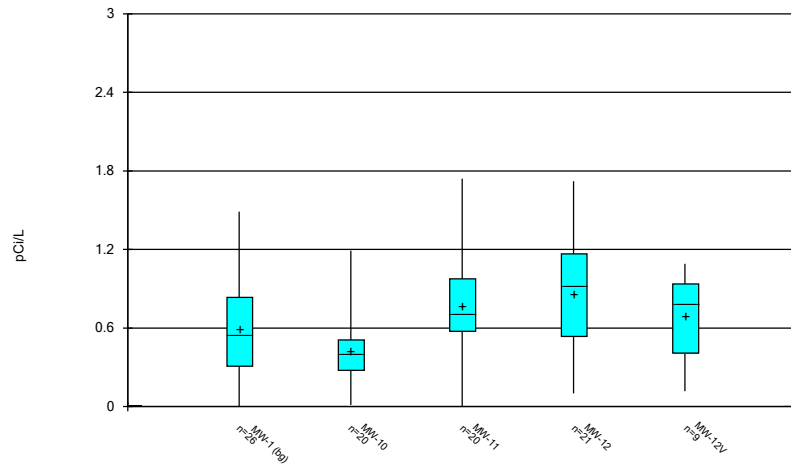
Constituent: Cobalt Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



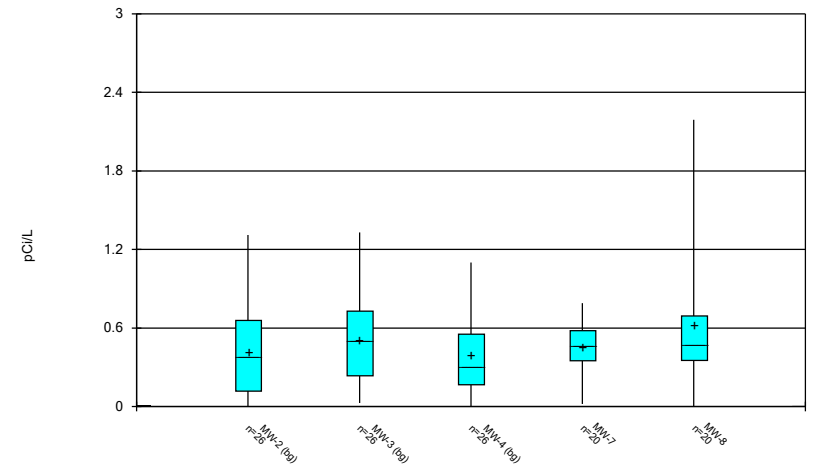
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



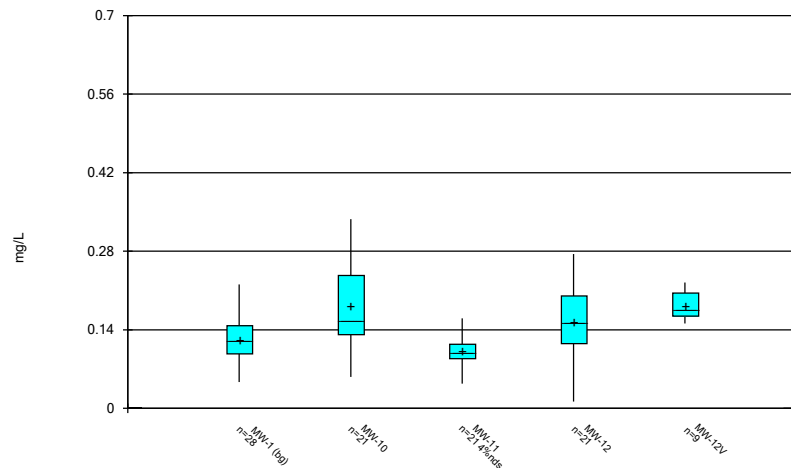
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



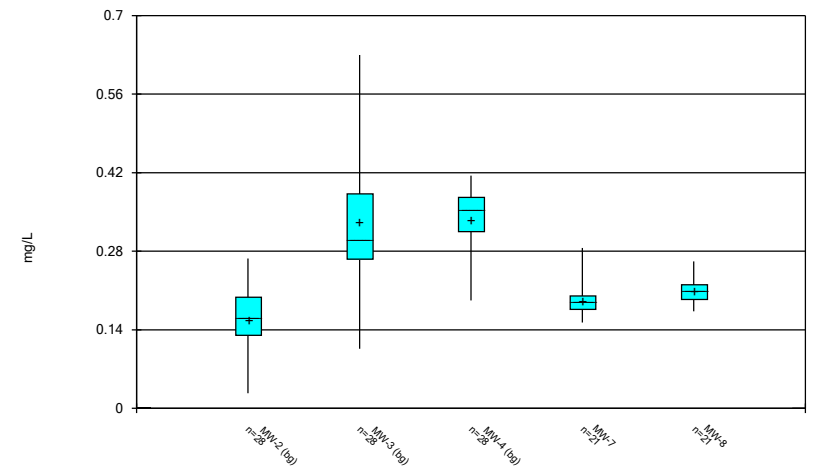
Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



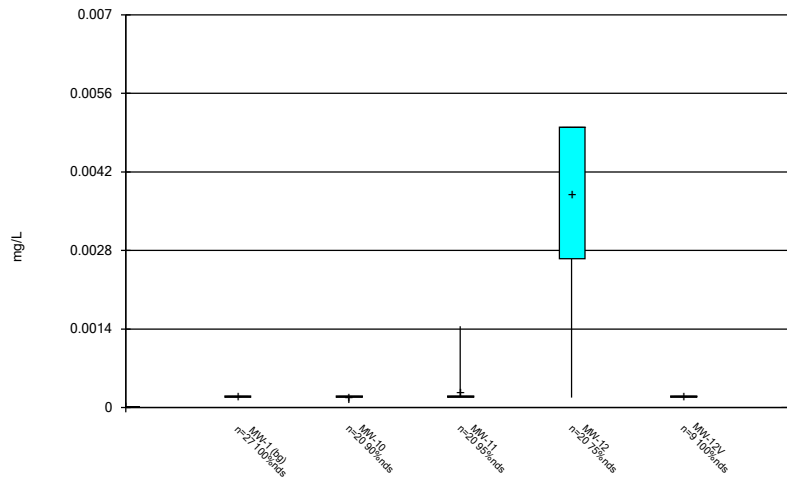
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



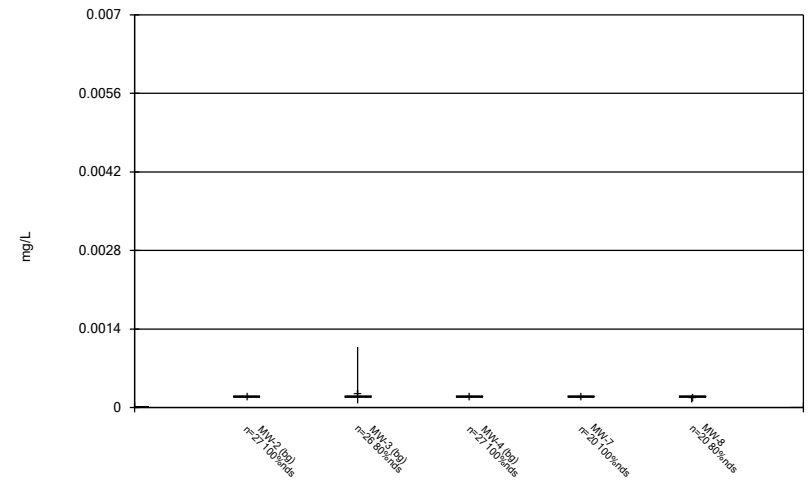
Constituent: Fluoride Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



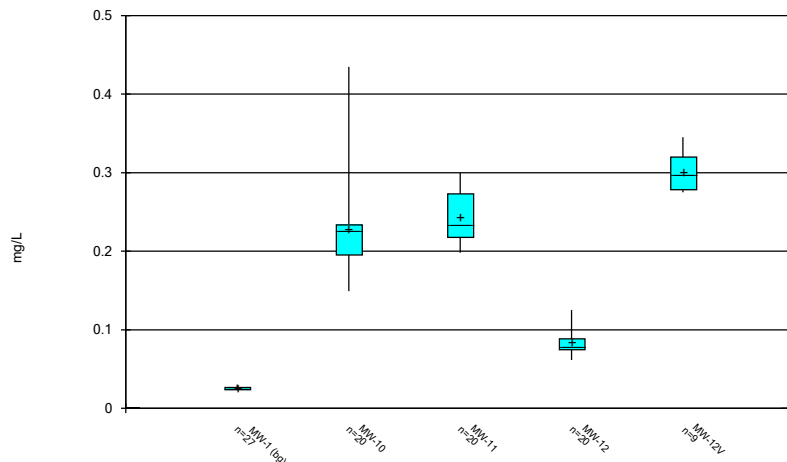
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



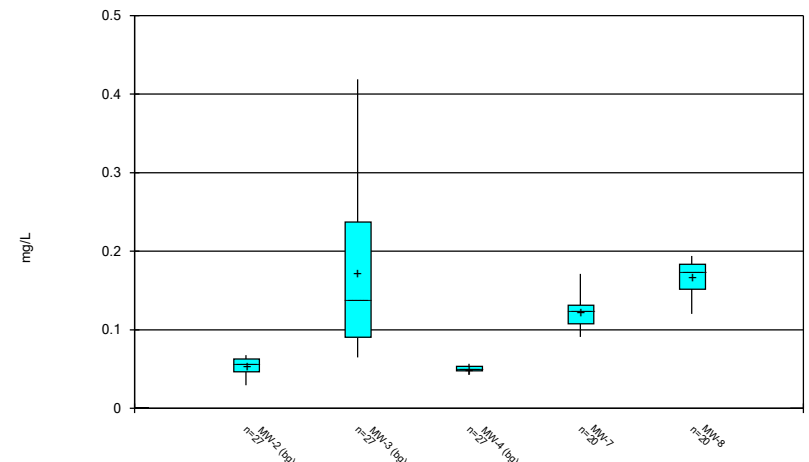
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



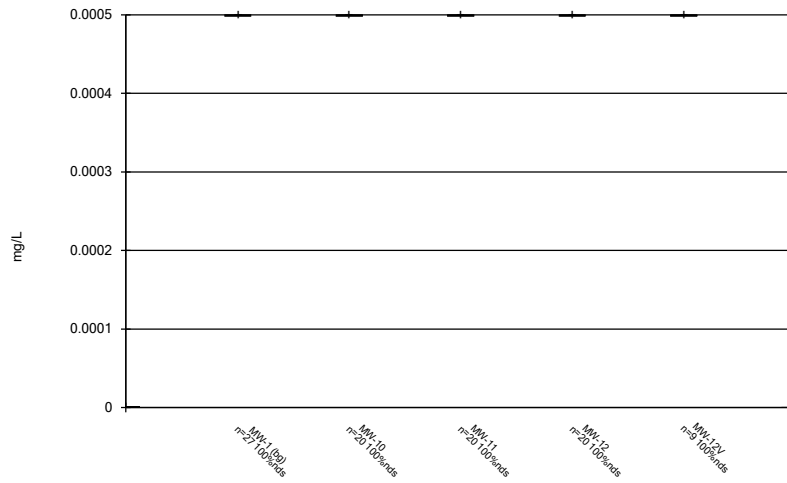
Constituent: Lithium Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



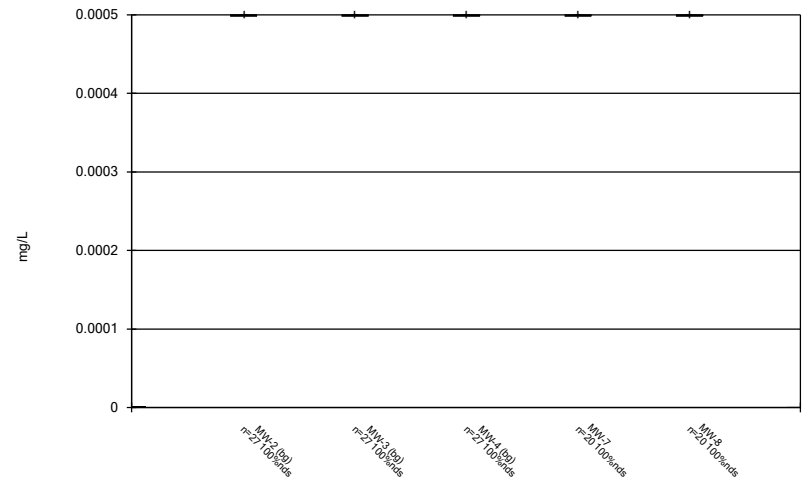
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Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



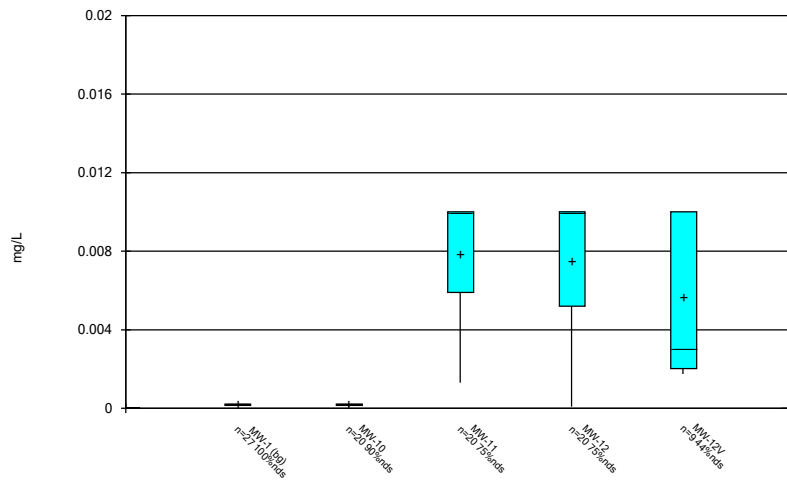
Constituent: Mercury Analysis Run 5/23/2023 3:20 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



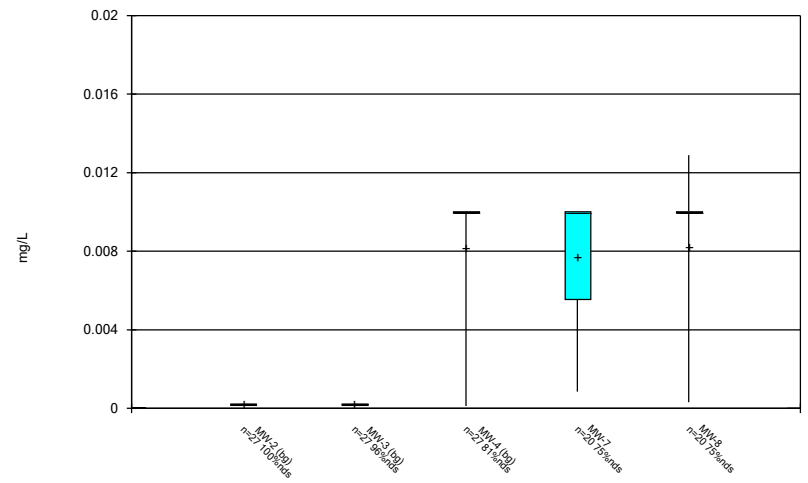
Constituent: Mercury Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



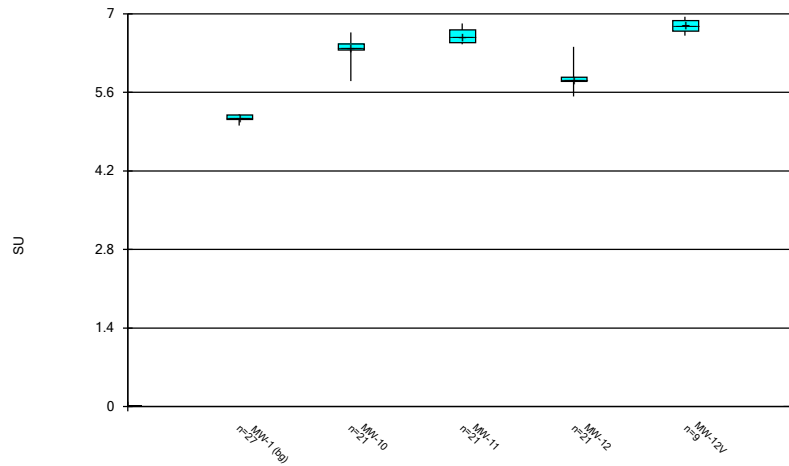
Constituent: Molybdenum Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



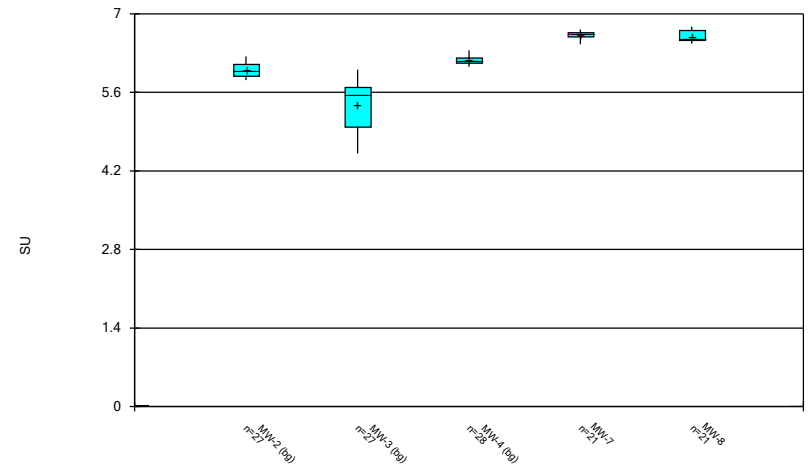
Constituent: Molybdenum Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



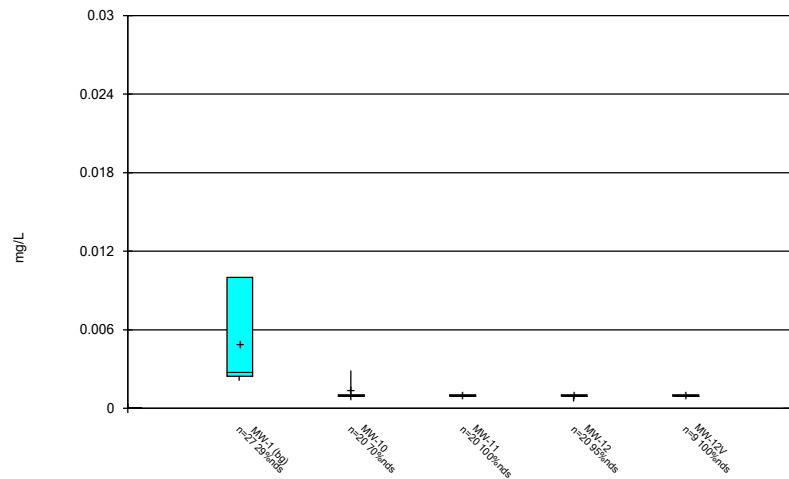
Constituent: pH Analysis Run 5/23/2023 3:21 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



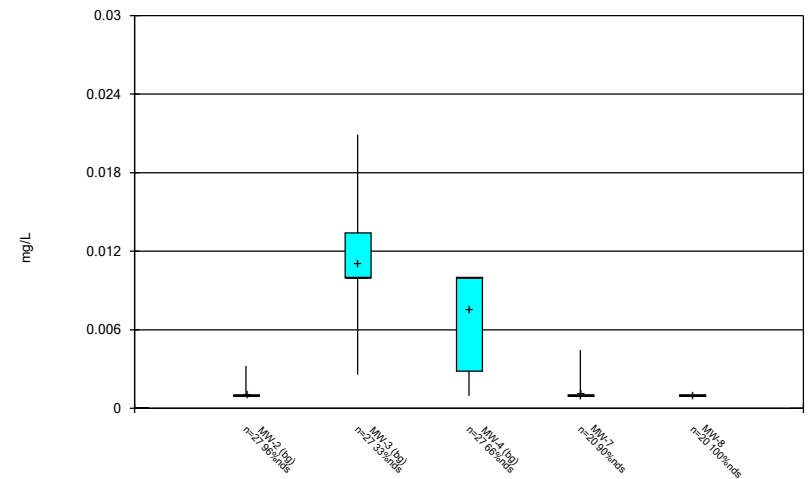
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 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



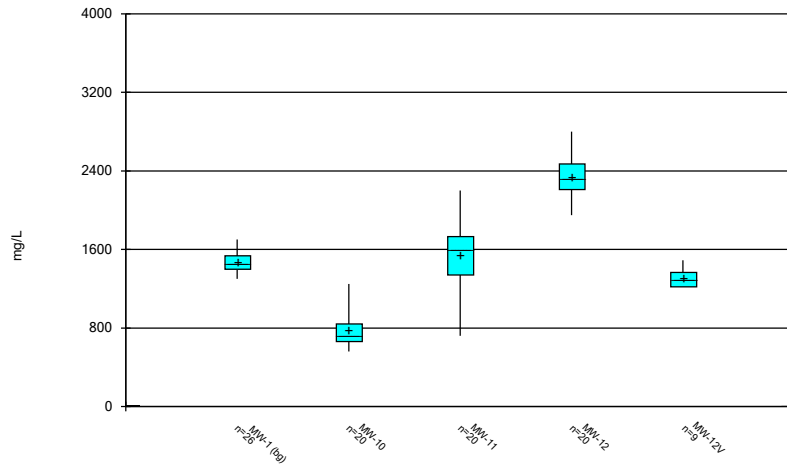
Constituent: Selenium Analysis Run 5/23/2023 3:21 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



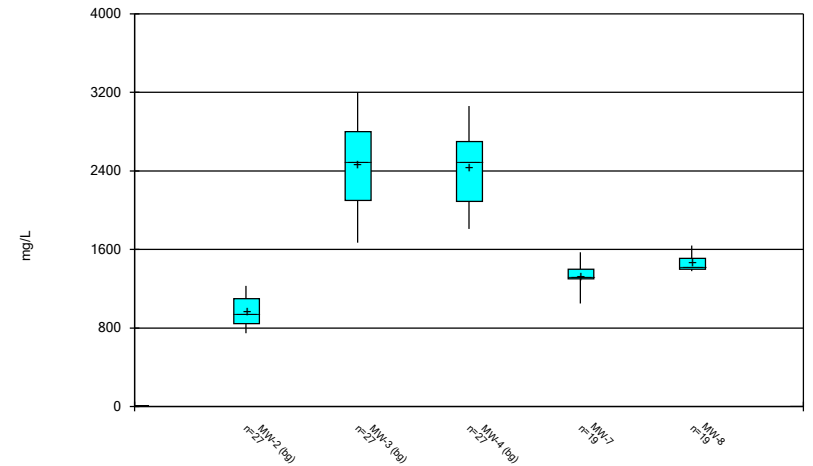
Constituent: Selenium Analysis Run 5/23/2023 3:21 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



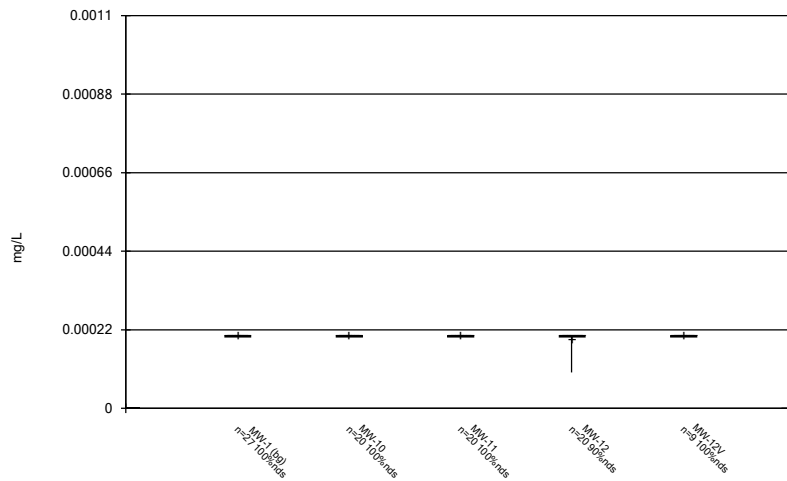
Constituent: Sulfate Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



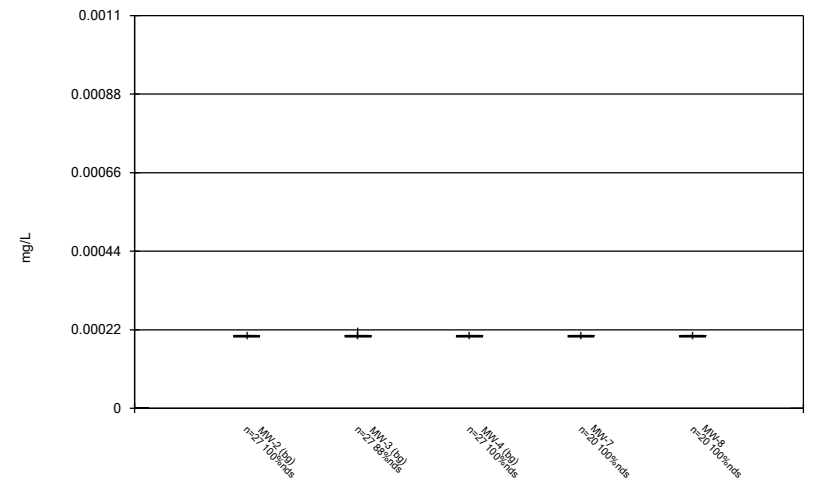
Constituent: Sulfate Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



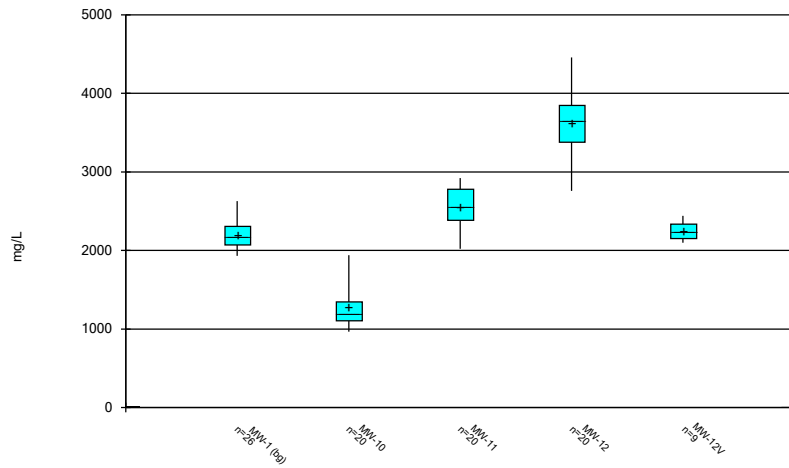
Constituent: Thallium Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



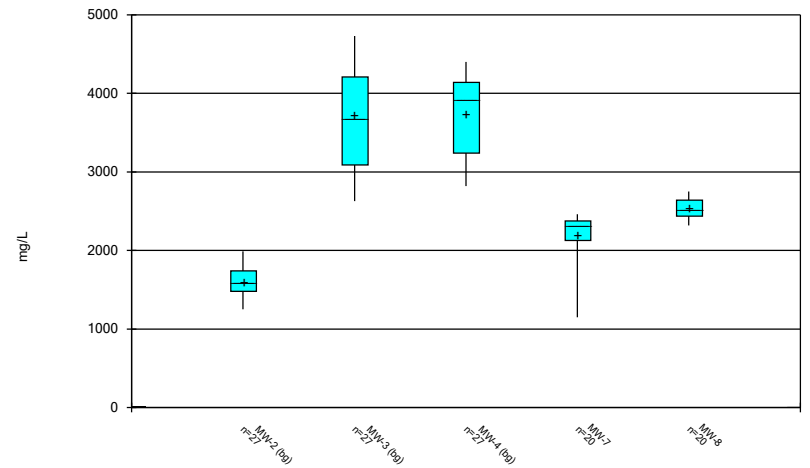
Constituent: Thallium Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:21 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

FIGURE C.

Outlier Summary

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:35 PM

	MW-3 Beryllium (mg/L)	MW-4 Boron (mg/L)	MW-7 Boron (mg/L)	MW-3 Cadmium (mg/L)	MW-3 Cobalt (mg/L)	MW-3 Lead (mg/L)	MW-3 pH (SU)	MW-1 Sulfate (mg/L)	MW-7 Sulfate (mg/L)	MW-8 Sulfate (mg/L)
4/25/2016				0.0121 (O)						
4/27/2016			0.253 (o)							
1/18/2017	0.0169 (O)									
5/22/2018								2100 (o)		
5/23/2018									1900 (o)	2100 (o)
11/19/2018	0.0185 (O)				0.00692 (o)		3.77 (Eo)			
5/14/2019		<0.203 (o)								
10/8/2019					1.07 (o)					
10/16/2019					0.848 (o)					
7/13/2020				0.00885 (O)						

	MW-1 Total Dissolved Solids (mg/L)
4/25/2016	
4/27/2016	
1/18/2017	
5/22/2018	
5/23/2018	
11/19/2018	
5/14/2019	
10/8/2019	
10/16/2019	3650 (o)
7/13/2020	

FIGURE D.

Intrawell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	MW-1	0.1903	n/a	2/20/2023	0.221	Yes	24	n/a	0.1172	0.03644	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-12	0.2219	n/a	2/22/2023	0.239	Yes	13	n/a	0.1188	0.04526	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-2	0.2565	n/a	2/20/2023	0.267	Yes	24	n/a	0.1456	0.05538	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-7	0.2155	n/a	2/21/2023	0.216	Yes	17	n/a	0.1848	0.01443	0	None	No	0.001504	Param Intra 1 of 2

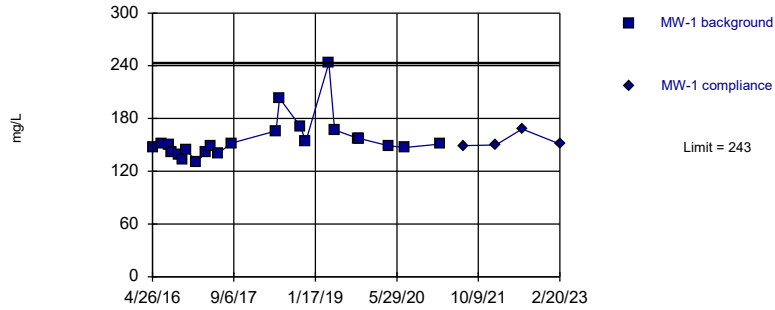
Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N Bg	Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	MW-1	243	n/a	2/20/2023	151	No	23	n/a	n/a	n/a	0	n/a	n/a	0.003415	NP Intra (normality) 1 of 2	
Calcium (mg/L)	MW-10	280.7	n/a	2/22/2023	152	No	16	n/a	184.7	44.65	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-11	423.3	n/a	2/21/2023	314	No	16	n/a	372.6	23.56	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-12	402.8	n/a	2/22/2023	304	No	16	n/a	355.6	21.98	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-2	216.2	n/a	2/20/2023	160	No	23	n/a	174.2	20.8	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-3	420.1	n/a	2/20/2023	210	No	23	n/a	300	59.54	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-4	388.9	n/a	2/21/2023	232	No	23	n/a	304.8	41.68	0	None	No	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-7	345.2	n/a	2/21/2023	286	No	16	n/a	85434	15683	0	None	x^2	0.001504	Param Intra 1 of 2	
Calcium (mg/L)	MW-8	341.3	n/a	2/21/2023	327	No	16	n/a	303.1	17.76	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-1	0.1903	n/a	2/20/2023	0.221	Yes	24	n/a	0.1172	0.03644	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-10	0.3437	n/a	2/22/2023	0.132	No	17	n/a	0.1839	0.0751	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-11	0.1477	n/a	2/21/2023	0.129	No	17	n/a	0.09621	0.0242	5.882	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-12	0.2219	n/a	2/22/2023	0.239	Yes	13	n/a	0.1188	0.04526	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-2	0.2565	n/a	2/20/2023	0.267	Yes	24	n/a	0.1456	0.05538	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-3	0.5975	n/a	2/20/2023	0.379	No	24	n/a	0.3299	0.1336	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-4	0.4243	n/a	2/21/2023	0.415	No	24	n/a	0.1114	0.03425	0	None	x^2	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-7	0.2155	n/a	2/21/2023	0.216	Yes	17	n/a	0.1848	0.01443	0	None	No	0.001504	Param Intra 1 of 2	
Fluoride (mg/L)	MW-8	0.2349	n/a	2/21/2023	0.212	No	17	n/a	0.21	0.01171	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-1	1672	n/a	2/20/2023	1520	No	22	n/a	1461	104.1	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-10	1188	n/a	2/22/2023	581	No	16	n/a	807.1	176.9	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-11	2292	n/a	2/21/2023	1290	No	16	n/a	1592	325.4	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-12	2822	n/a	2/22/2023	2440	No	16	n/a	2315	235.6	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-2	1284	n/a	2/20/2023	767	No	23	n/a	997.8	141.7	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-3	3300	n/a	2/20/2023	2110	No	23	n/a	2451	421.1	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-4	3165	n/a	2/21/2023	1930	No	23	n/a	2511	324	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-7	1614	n/a	2/21/2023	1450	No	15	n/a	1324	132.3	0	None	No	0.001504	Param Intra 1 of 2	
Sulfate (mg/L)	MW-8	1640	n/a	2/21/2023	1510	No	15	n/a	n/a	n/a	0	n/a	n/a	0.007533	NP Intra (normality) 1 of 2	
Total Dissolved Solids (mg/L)	MW-1	2530	n/a	2/20/2023	2280	No	22	n/a	2197	164	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-10	1925	n/a	2/22/2023	991	No	16	n/a	7.179	0.1783	0	None	ln(x)	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-11	3052	n/a	2/21/2023	2160	No	16	n/a	2649	187.2	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-12	4477	n/a	2/22/2023	3880	No	16	n/a	3598	408.9	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-2	2034	n/a	2/20/2023	1420	No	23	n/a	1643	193.7	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-3	5097	n/a	2/20/2023	3230	No	23	n/a	3729	678.1	0	None	No	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-4	4623	n/a	2/21/2023	3160	No	23	n/a	1.5e7	3201096	0	None	x^2	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-7	2598	n/a	2/21/2023	2220	No	16	n/a	6.3e16	2.6e16	0	None	x^5	0.001504	Param Intra 1 of 2	
Total Dissolved Solids (mg/L)	MW-8	2817	n/a	2/21/2023	2370	No	16	n/a	2573	113.3	0	None	No	0.001504	Param Intra 1 of 2	

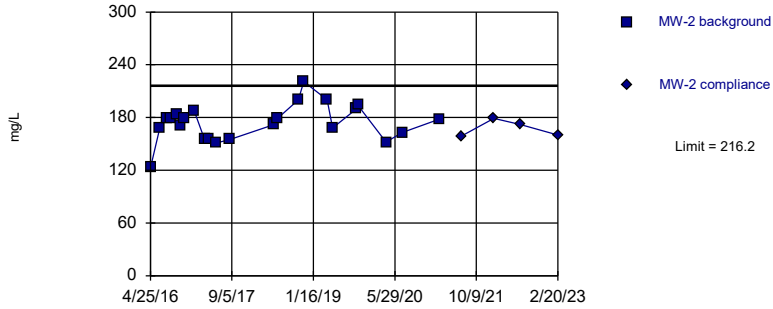
Within Limit

Prediction Limit
Intrawell Non-parametric



Within Limit

Prediction Limit Intrawell Parametric

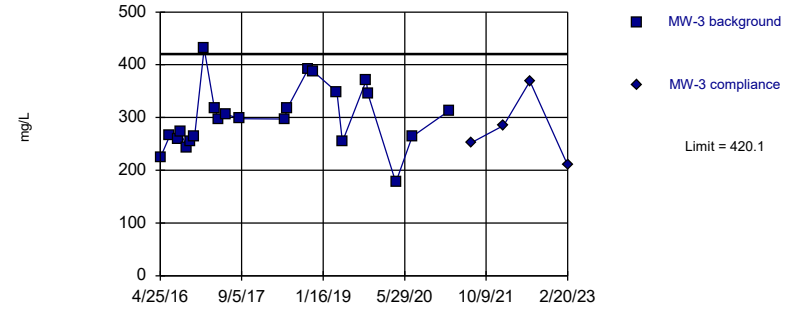


Background Data Summary: Mean=174.2, Std. Dev.=20.8, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9781, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

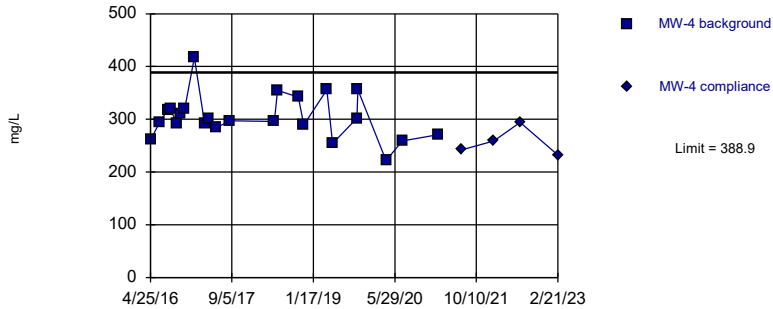


Background Data Summary: Mean=300, Std. Dev.=59.54, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9749, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

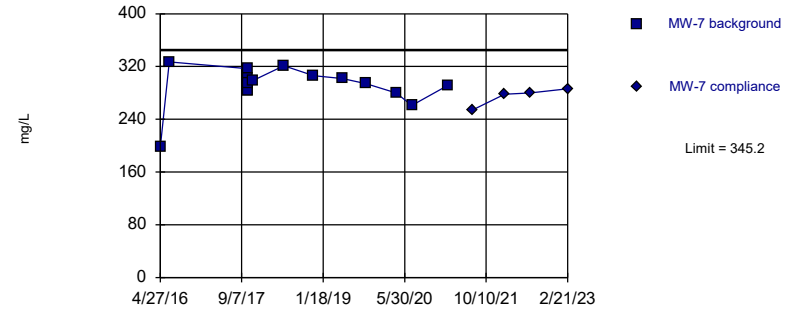


Background Data Summary: Mean=304.8, Std. Dev.=41.68, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9567, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

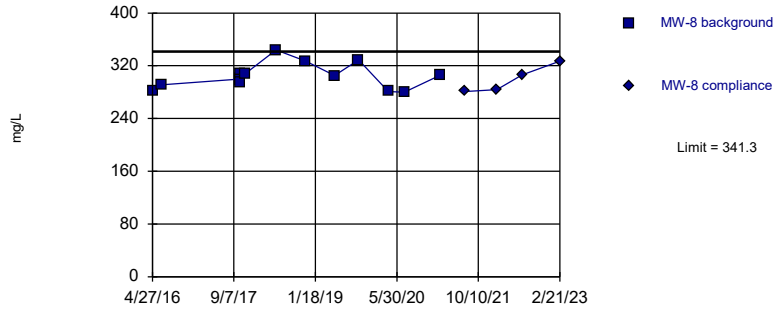


Background Data Summary (based on square transformation): Mean=85434, Std. Dev.=15683, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8569, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

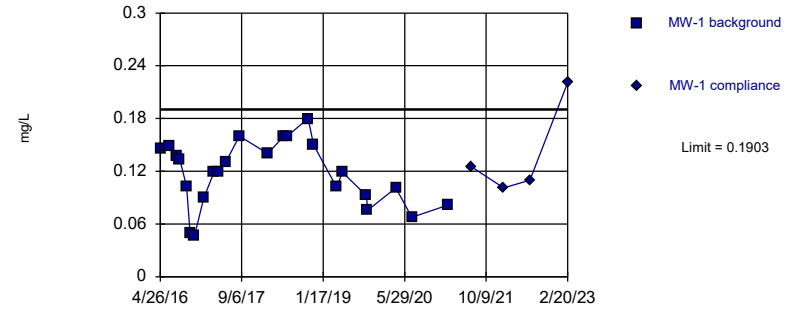


Background Data Summary: Mean=303.1, Std. Dev.=17.76, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9165, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Exceeds Limit

Prediction Limit Intrawell Parametric

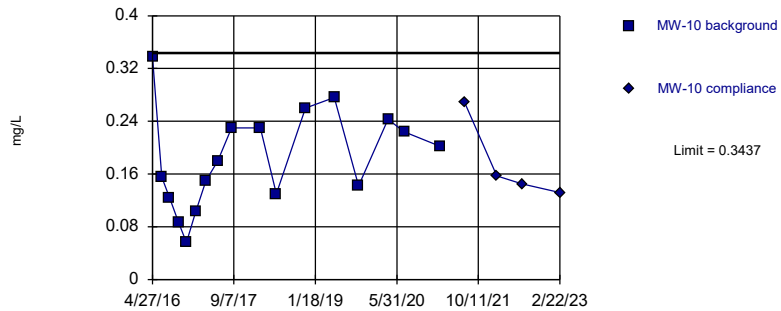


Background Data Summary: Mean=0.1172, Std. Dev.=0.03644, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9658, critical = 0.884. Kappa = 2.004 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

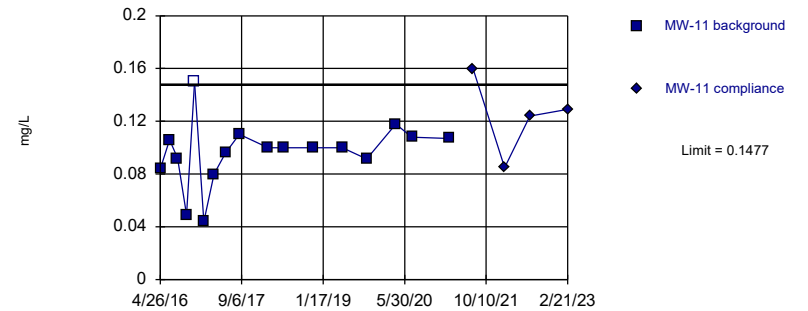


Background Data Summary: Mean=0.1839, Std. Dev.=0.0751, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9812, critical = 0.851. Kappa = 2.127 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

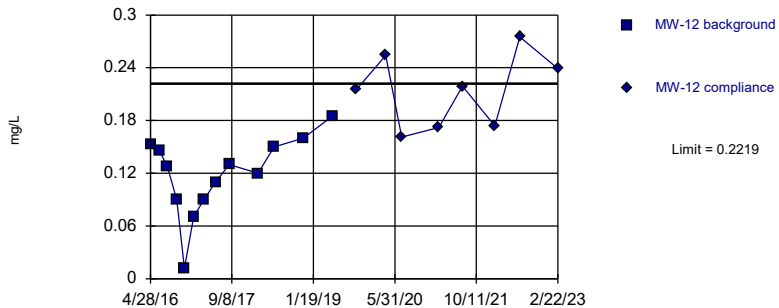


Background Data Summary: Mean=0.09621, Std. Dev.=0.0242, n=17, 5.882% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8998, critical = 0.851. Kappa = 2.127 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

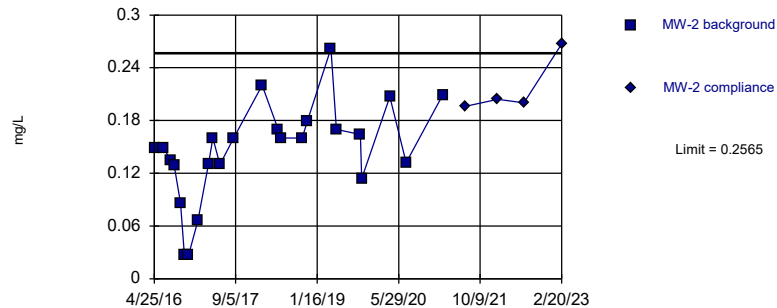


Background Data Summary: Mean=0.1188, Std. Dev.=0.04526, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9427, critical = 0.814. Kappa = 2.279 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

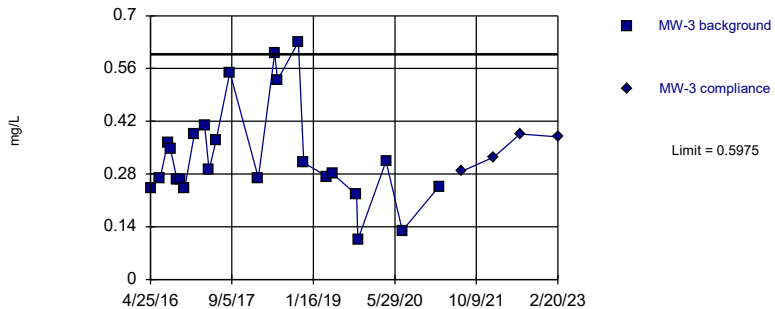


Background Data Summary: Mean=0.1456, Std. Dev.=0.05538, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9466, critical = 0.884. Kappa = 2.004 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

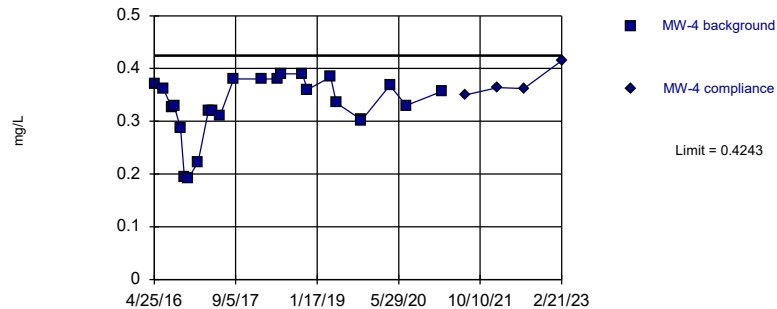


Background Data Summary: Mean=0.3299, Std. Dev.=0.1336, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9032, critical = 0.884. Kappa = 2.004 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

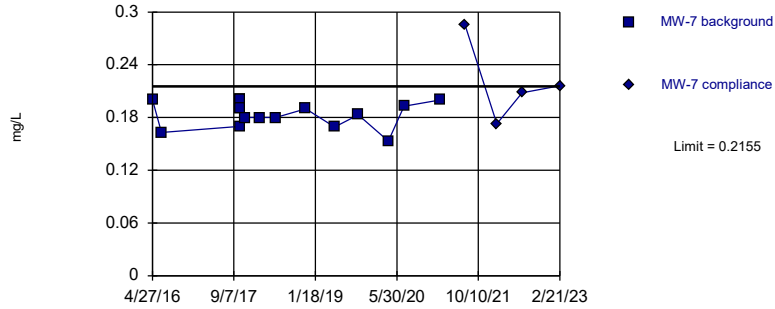


Background Data Summary (based on square transformation): Mean=0.1114, Std. Dev.=0.03425, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.897, critical = 0.884. Kappa = 2.004 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Exceeds Limit

Prediction Limit Intrawell Parametric

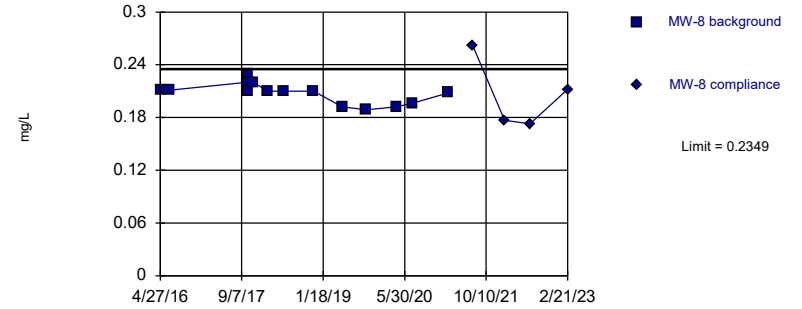


Background Data Summary: Mean=0.1848, Std. Dev.=0.01443, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9003, critical = 0.851. Kappa = 2.127 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

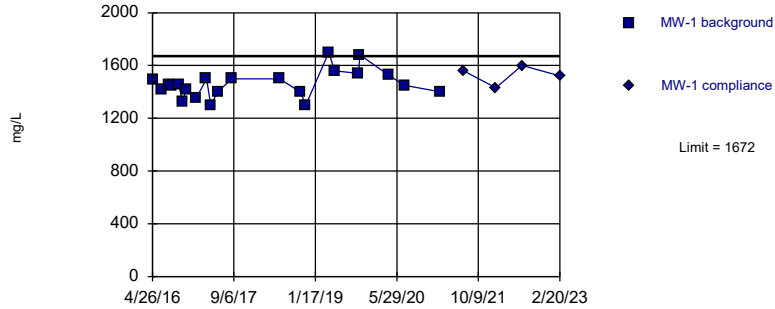


Background Data Summary: Mean=0.21, Std. Dev.=0.01171, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.851. Kappa = 2.127 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

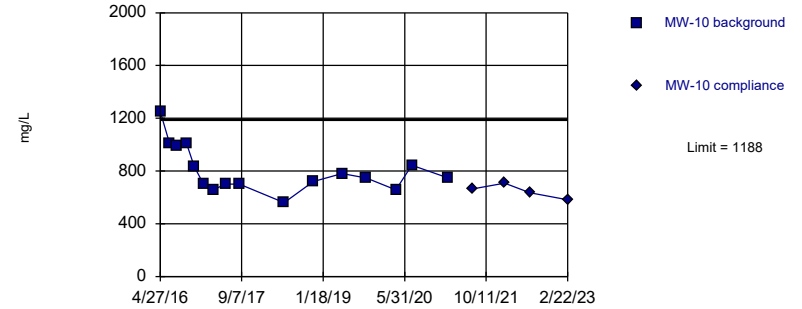


Background Data Summary: Mean=1461, Std. Dev.=104.1, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9462, critical = 0.878. Kappa = 2.031 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric



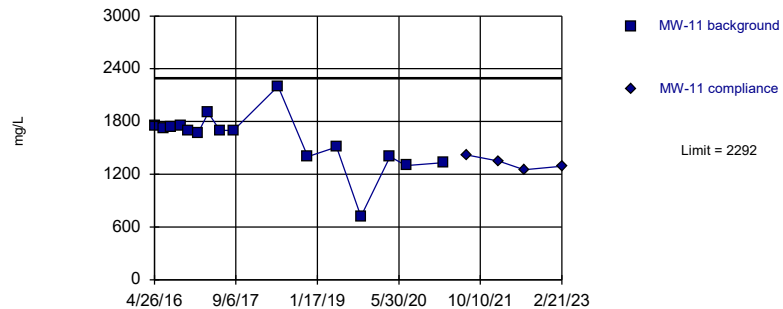
Background Data Summary: Mean=807.1, Std. Dev.=176.9, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8929, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric



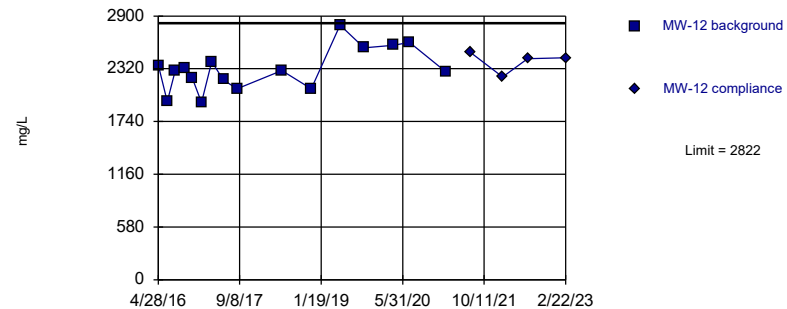
Background Data Summary: Mean=1592, Std. Dev.=325.4, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8949, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric



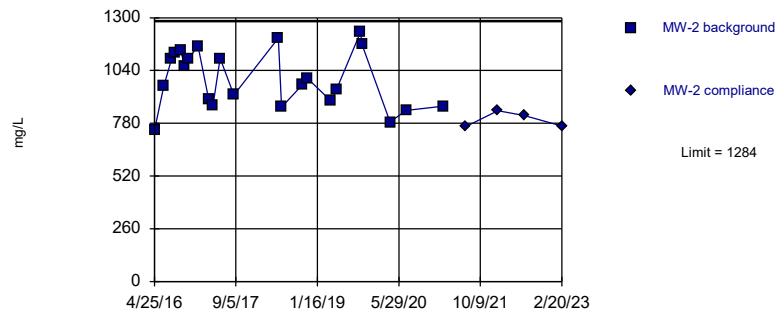
Background Data Summary: Mean=2315, Std. Dev.=235.6, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.968, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric



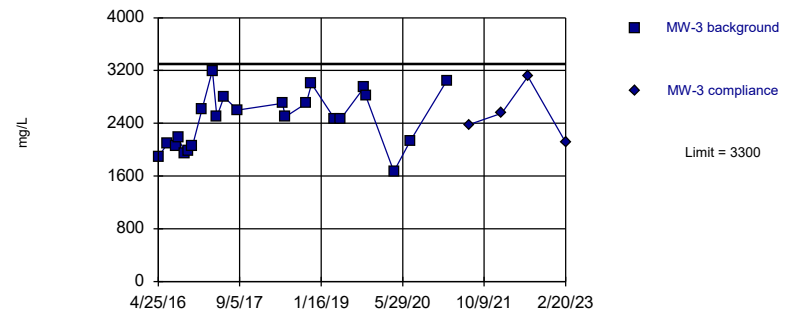
Background Data Summary: Mean=997.8, Std. Dev.=141.7, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9515, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric

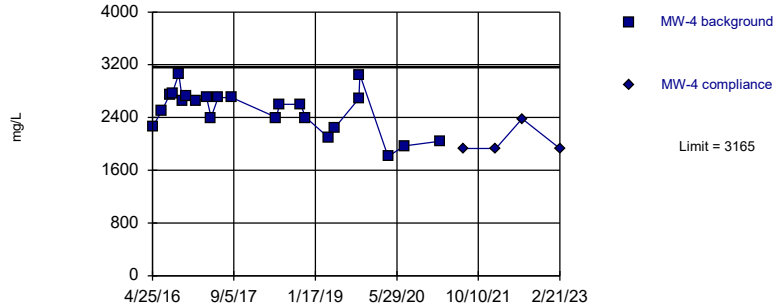


Background Data Summary: Mean=2451, Std. Dev.=421.1, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9657, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

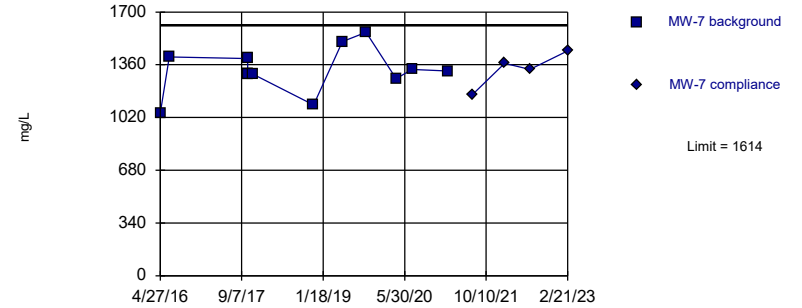


Background Data Summary: Mean=2511, Std. Dev.=324, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9443, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

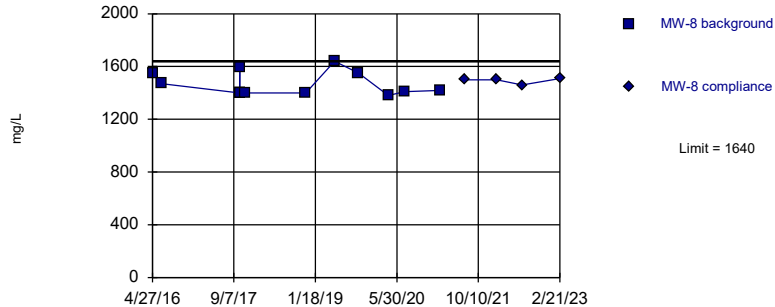


Background Data Summary: Mean=1324, Std. Dev.=132.3, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9168, critical = 0.835. Kappa = 2.193 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Non-parametric

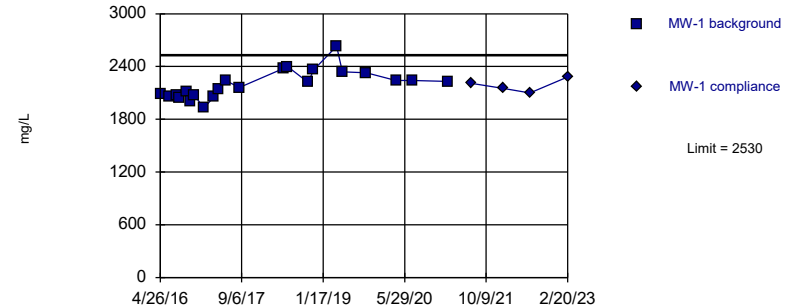


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 15 background values. Well-constituent pair annual alpha = 0.01501. Individual comparison alpha = 0.007533 (1 of 2).

Constituent: Sulfate Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric



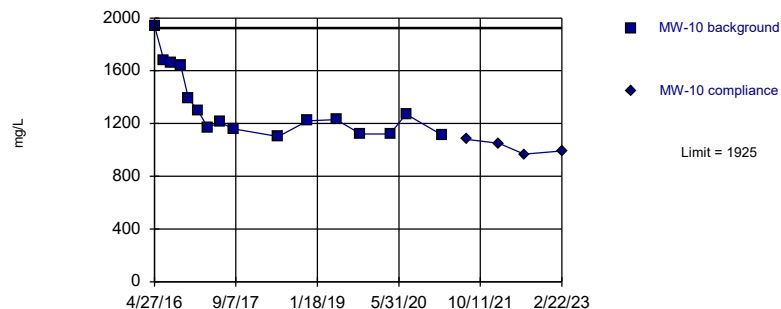
Background Data Summary: Mean=2197, Std. Dev.=164, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9479, critical = 0.878. Kappa = 2.031 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric



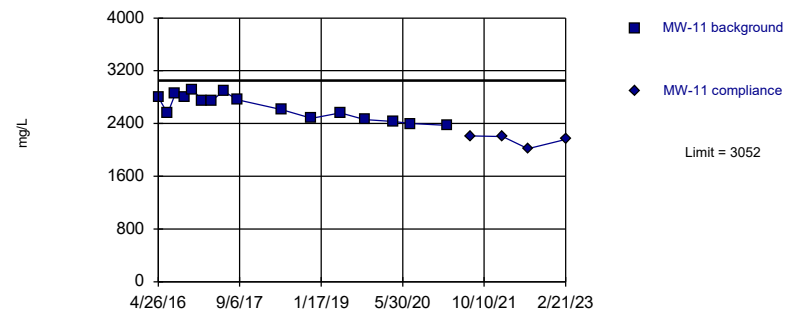
Background Data Summary (based on natural log transformation): Mean=7.179, Std. Dev.=0.1783, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8482, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric



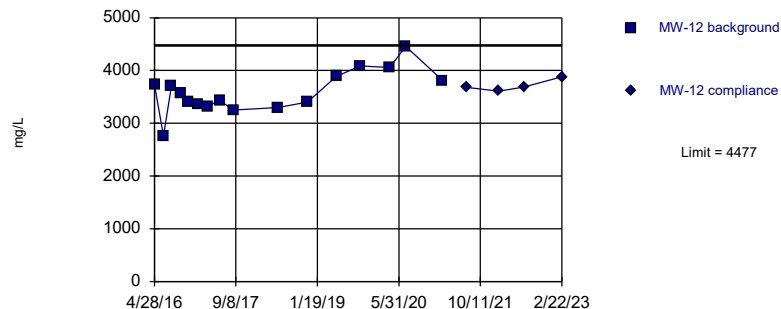
Background Data Summary: Mean=2649, Std. Dev.=187.2, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9189, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric



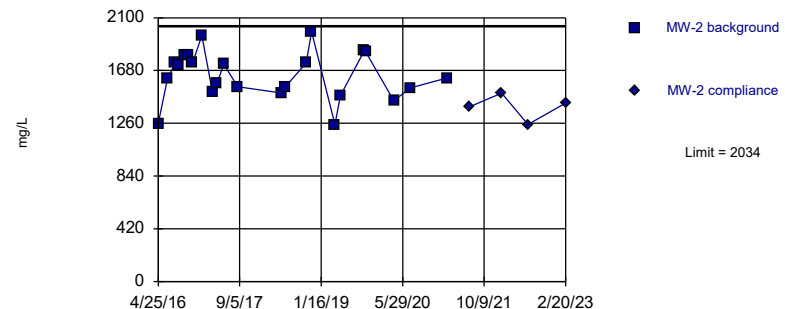
Background Data Summary: Mean=3598, Std. Dev.=408.9, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9669, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit

Intrawell Parametric

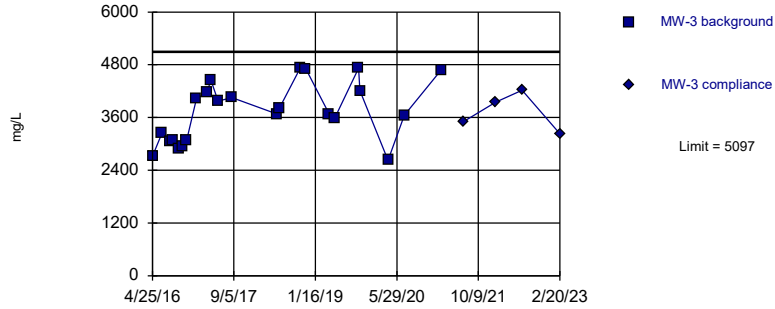


Background Data Summary: Mean=1643, Std. Dev.=193.7, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9661, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

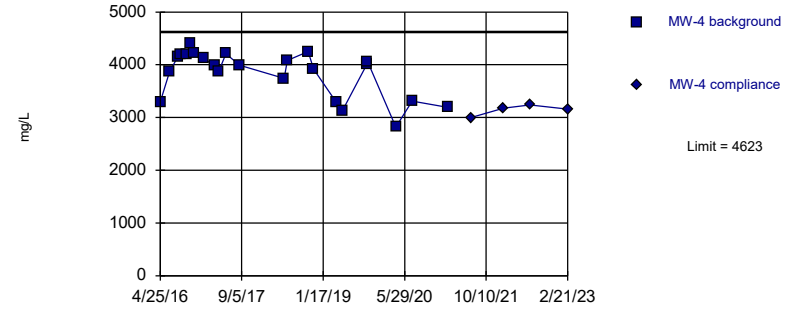


Background Data Summary: Mean=3729, Std. Dev.=678.1, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9398, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

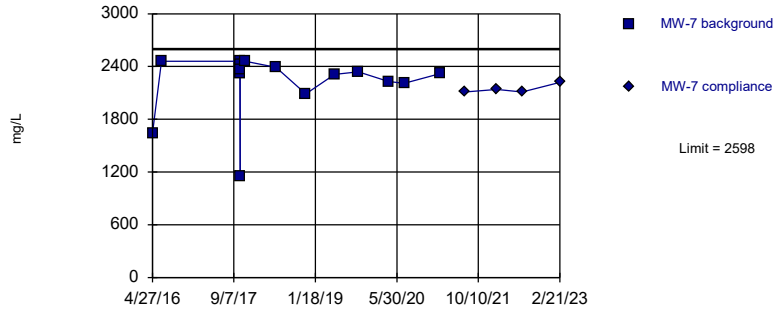


Background Data Summary (based on square transformation): Mean=1.5e7, Std. Dev.=3201096, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8861, critical = 0.881. Kappa = 2.017 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

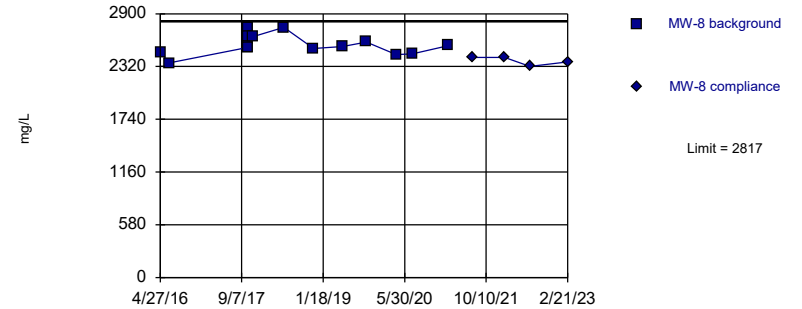


Background Data Summary (based on x^5 transformation): Mean=6.3e16, Std. Dev.=2.6e16, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8587, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2573, Std. Dev.=113.3, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9548, critical = 0.844. Kappa = 2.15 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 5/23/2023 3:24 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:26 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	151	
7/12/2021		149
1/25/2022		150
7/5/2022		168
2/20/2023		151

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:26 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	279	
6/23/2016	256	
8/10/2016	245	
10/5/2016	225	
11/21/2016	179	
1/17/2017	168	
3/21/2017	152	
5/31/2017	130	
8/23/2017	147	
5/24/2018	159	
11/19/2018	160	
5/15/2019	186	
10/9/2019	146	
4/8/2020	164	
7/14/2020	208	
2/23/2021	151	
7/20/2021		149
2/1/2022		155
7/6/2022		150
2/22/2023		152

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:26 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	400	
6/22/2016	398	
8/9/2016	399	
10/4/2016	389	
11/21/2016	386	
1/17/2017	344	
3/21/2017	396	
5/30/2017	370	
8/23/2017	374	
5/22/2018	375	
11/20/2018	370	
5/15/2019	380	
10/10/2019	373	
4/6/2020	333	
7/13/2020	350	
2/24/2021	325	
7/21/2021		322
2/1/2022		335
7/5/2022		333
2/21/2023		314

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:26 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	349	
6/22/2016	374	
8/10/2016	348	
10/5/2016	344	
11/22/2016	342	
1/18/2017	359	
3/21/2017	352	
5/31/2017	313	
8/23/2017	349	
5/24/2018	349	
11/19/2018	348	
5/15/2019	411	
10/9/2019	359	
4/6/2020	354	
7/13/2020	392	
2/24/2021	346	
7/20/2021		330
2/1/2022		334
7/5/2022		330
2/22/2023		304

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:26 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	178	
7/12/2021		159
1/25/2022		179
7/5/2022		172
2/20/2023		160

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:26 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	312	
7/12/2021		252
1/25/2022		285
7/5/2022		369
2/20/2023		210

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	271	
7/12/2021		242
1/25/2022		259
7/5/2022		294
2/21/2023		232

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	292	
7/20/2021		254
1/31/2022		278
7/6/2022		280
2/21/2023		286

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	306	
7/20/2021		281
2/1/2022		284
7/6/2022		306
2/21/2023		327

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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)	
2/22/2021	0.082 (J)	
7/12/2021		0.125
1/25/2022		0.101
7/5/2022		0.11 (J)
2/20/2023		0.221

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	0.337	
6/23/2016	0.155 (J)	
8/10/2016	0.123 (J)	
10/5/2016	0.086 (J)	
11/21/2016	0.056 (J)	
1/17/2017	0.103 (J)	
3/21/2017	0.15	
5/31/2017	0.18	
8/23/2017	0.23	
2/15/2018	0.23	
5/24/2018	0.13	
11/19/2018	0.26	
5/15/2019	0.276	
10/9/2019	0.142	
4/8/2020	0.243	
7/14/2020	0.224	
2/23/2021	0.202	
7/20/2021		0.268
2/1/2022		0.157
7/6/2022		0.145
2/22/2023		0.132

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	0.084 (J)	
6/22/2016	0.106 (J)	
8/9/2016	0.092 (J)	
10/4/2016	0.049 (J)	
11/21/2016	<0.3	
1/17/2017	0.044 (J)	
3/21/2017	0.08 (J)	
5/30/2017	0.096 (J)	
8/23/2017	0.11	
2/14/2018	0.1	
5/22/2018	0.1	
11/20/2018	0.1	
5/15/2019	0.1	
10/10/2019	0.0915 (J)	
4/6/2020	0.118	
7/13/2020	0.108	
2/24/2021	0.107	
7/21/2021		0.16
2/1/2022		0.0848 (J)
7/5/2022		0.124 (J)
2/21/2023		0.129

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	0.153 (J)	
6/22/2016	0.146 (J)	
8/10/2016	0.127 (J)	
10/5/2016	0.09 (J)	
11/22/2016	0.012 (J)	
1/18/2017	0.071 (J)	
3/21/2017	0.09 (J)	
5/31/2017	0.11	
8/23/2017	0.13	
2/15/2018	0.12	
5/24/2018	0.15	
11/19/2018	0.16	
5/15/2019	0.185	
10/9/2019		0.215
4/6/2020		0.254
7/13/2020		0.161
2/24/2021		0.172
7/20/2021		0.219
2/1/2022		0.174
7/5/2022		0.275
2/22/2023		0.239

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.209	
7/12/2021		0.196
1/25/2022		0.204
7/5/2022		0.2
2/20/2023		0.267

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.246	
7/12/2021		0.287
1/25/2022		0.325
7/5/2022		0.386
2/20/2023		0.379

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.357	
7/12/2021		0.35
1/25/2022		0.364
7/5/2022		0.362
2/21/2023		0.415

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/23/2021	0.2	
7/20/2021		0.286
1/31/2022		0.173
7/6/2022		0.208
2/21/2023		0.216

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/23/2021	0.208	
7/20/2021		0.262
2/1/2022		0.177
7/6/2022		0.173
2/21/2023		0.212

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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 (o)	
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	
2/22/2021	1400	
7/12/2021		1560
1/25/2022		1430
7/5/2022		1600
2/20/2023		1520

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	1250	
6/23/2016	1010	
8/10/2016	992	
10/5/2016	1010	
11/21/2016	834	
1/17/2017	700	
3/21/2017	660	
5/31/2017	700	
8/23/2017	700	
5/24/2018	560	
11/19/2018	720	
5/15/2019	780	
10/9/2019	748	
4/8/2020	658	
7/14/2020	845	
2/23/2021	747	
7/20/2021		665
2/1/2022		707
7/6/2022		635
2/22/2023		581

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	1750	
6/22/2016	1720	
8/9/2016	1740	
10/4/2016	1750	
11/21/2016	1690	
1/17/2017	1670	
3/21/2017	1900	
5/30/2017	1700	
8/23/2017	1700	
5/22/2018	2200	
11/20/2018	1400	
5/15/2019	1510	
10/10/2019	719	
4/6/2020	1400	
7/13/2020	1300	
2/24/2021	1330	
7/21/2021		1420
2/1/2022		1350
7/5/2022		1250
2/21/2023		1290

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	2360	
6/22/2016	1960	
8/10/2016	2300	
10/5/2016	2330	
11/22/2016	2220	
1/18/2017	1950	
3/21/2017	2400	
5/31/2017	2200	
8/23/2017	2100	
5/24/2018	2300	
11/19/2018	2100	
5/15/2019	2800	
10/9/2019	2550	
4/6/2020	2580	
7/13/2020	2610	
2/24/2021	2280	
7/20/2021		2500
2/1/2022		2230
7/5/2022		2430
2/22/2023		2440

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	864	
7/12/2021		763
1/25/2022		842
7/5/2022		819
2/20/2023		767

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	3040	
7/12/2021		2380
1/25/2022		2550
7/5/2022		3110
2/20/2023		2110

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	2040	
7/12/2021		1930
1/25/2022		1930
7/5/2022		2380
2/21/2023		1930

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	1320	
7/20/2021		1170
1/31/2022		1370
7/6/2022		1330
2/21/2023		1450

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/23/2023 3:27 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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 (o)	
11/20/2018	1400	
5/15/2019	1640	
10/9/2019	1550	
4/8/2020	1380	
7/15/2020	1410	
2/23/2021	1420	
7/20/2021		1500
2/1/2022		1500
7/6/2022		1460
2/21/2023		1510

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1	MW-1
4/26/2016	2080	
6/20/2016	2060	
8/8/2016	2070	
8/24/2016	2040	
10/3/2016	2110	
10/26/2016	2000	
11/21/2016	2070	
1/17/2017	1930	
3/22/2017	2060	
4/18/2017	2140	
5/30/2017	2240	
8/23/2017	2160	
5/22/2018	2380	
6/12/2018	2400	
10/17/2018	2220	
11/19/2018	2360	
4/10/2019	2630	
5/14/2019	2340	
10/8/2019	2330	
10/16/2019	3650 (o)	
4/6/2020	2240	
7/13/2020	2240	
2/22/2021	2230	
7/12/2021		2210
1/25/2022		2150
7/5/2022		2100
2/20/2023		2280

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	1940	
6/23/2016	1680	
8/10/2016	1660	
10/5/2016	1640	
11/21/2016	1390	
1/17/2017	1300	
3/21/2017	1170	
5/31/2017	1210	
8/23/2017	1160	
5/24/2018	1100	
11/19/2018	1220	
5/15/2019	1230	
10/9/2019	1120	
4/8/2020	1120	
7/14/2020	1270	
2/23/2021	1110	
7/20/2021		1080
2/1/2022		1050
7/6/2022		967
2/22/2023		991

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	2800	
6/22/2016	2550	
8/9/2016	2860	
10/4/2016	2800	
11/21/2016	2920	
1/17/2017	2750	
3/21/2017	2750	
5/30/2017	2890	
8/23/2017	2760	
5/22/2018	2610	
11/20/2018	2480	
5/15/2019	2560	
10/10/2019	2460	
4/6/2020	2430	
7/13/2020	2400	
2/24/2021	2370	
7/21/2021		2210
2/1/2022		2200
7/5/2022		2020
2/21/2023		2160

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	3730	
6/22/2016	2760	
8/10/2016	3710	
10/5/2016	3580	
11/22/2016	3400	
1/18/2017	3360	
3/21/2017	3320	
5/31/2017	3440	
8/23/2017	3250	
5/24/2018	3300	
11/19/2018	3400	
5/15/2019	3890	
10/9/2019	4090	
4/6/2020	4060	
7/13/2020	4460	
2/24/2021	3810	
7/20/2021		3680
2/1/2022		3610
7/5/2022		3690
2/22/2023		3880

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2	MW-2
4/25/2016	1260	
6/20/2016	1620	
8/8/2016	1740	
8/24/2016	1720	
10/3/2016	1800	
10/26/2016	1800	
11/21/2016	1740	
1/17/2017	1960	
3/22/2017	1510	
4/18/2017	1580	
5/31/2017	1730	
8/23/2017	1550	
5/22/2018	1500	
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	
2/22/2021	1620	
7/12/2021		1390
1/25/2022		1500
7/5/2022		1250
2/20/2023		1420

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-3	MW-3
4/25/2016	2720	
6/22/2016	3250	
8/9/2016	3050	
8/24/2016	3080	
10/4/2016	2900	
10/26/2016	2940	
11/21/2016	3090	
1/18/2017	4020	
3/22/2017	4180	
4/18/2017	4440	
5/31/2017	3970	
8/23/2017	4050	
5/24/2018	3680	
6/12/2018	3820	
10/17/2018	4730	
11/19/2018	4710	
4/10/2019	3680	
5/14/2019	3580	
10/8/2019	4720	
10/16/2019	4210	
4/6/2020	2630	
7/13/2020	3650	
2/22/2021	4670	
7/12/2021		3510
1/25/2022		3950
7/5/2022		4220
2/20/2023		3230

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-4	MW-4
4/25/2016	3300	
6/20/2016	3870	
8/9/2016	4140	
8/24/2016	4190	
10/3/2016	4190	
10/26/2016	4400	
11/21/2016	4230	
1/18/2017	4120	
3/22/2017	3980	
4/18/2017	3880	
5/31/2017	4210	
8/23/2017	3990	
5/23/2018	3740	
6/12/2018	4080	
10/17/2018	4250	
11/19/2018	3920	
4/10/2019	3280	
5/14/2019	3130	
10/10/2019	4000	
10/16/2019	4060	
4/6/2020	2820	
7/14/2020	3310	
2/22/2021	3190	
7/12/2021		3000
1/25/2022		3180
7/5/2022		3240
2/21/2023		3160

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	2320	
7/20/2021		2110
1/31/2022		2140
7/6/2022		2110
2/21/2023		2220

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/23/2023 3:27 PM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	2550	
7/20/2021		2420
2/1/2022		2420
7/6/2022		2320
2/21/2023		2370

FIGURE E.

Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/27/2023, 9:23 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method	
Boron (mg/L)	MW-10	0.1015	n/a	2/22/2023	0.122	Yes	107		MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	2/21/2023	0.104	Yes	107		MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	2/22/2023	0.153	Yes	107		MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	2/21/2023	50.4	Yes	108		MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	2/22/2023	10.9	Yes	108		MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	2/21/2023	6.12	Yes	108		MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	2/21/2023	4.86	Yes	108		MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701	NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	2/22/2023	6.67	Yes	109		MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343	NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	2/21/2023	6.77	Yes	109		MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343	NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	2/21/2023	6.72	Yes	109		MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343	NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	2/21/2023	6.75	Yes	109		MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343	NP Inter (normality) 1 of 2

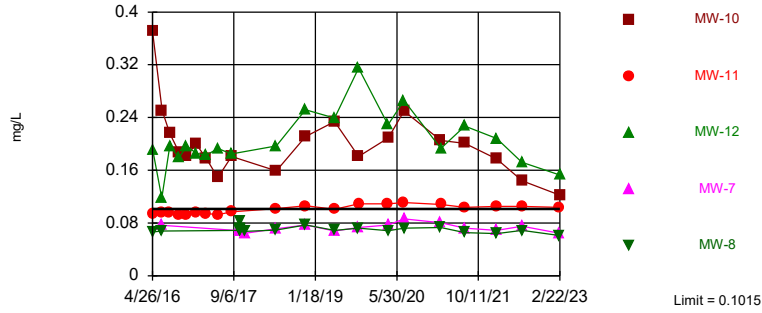
Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/27/2023, 9:23 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	NBq Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron (mg/L)	MW-10	0.1015	n/a	2/22/2023	0.122	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	2/21/2023	0.104	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	2/22/2023	0.153	Yes	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-7	0.1015	n/a	2/21/2023	0.0645J	No	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Boron (mg/L)	MW-8	0.1015	n/a	2/21/2023	0.0609J	No	107 MW-1,MW-2,MW-3,MW-4	n/a	n/a	25.23	n/a	n/a	0.000173 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-10	4.6	n/a	2/22/2023	2.77	No	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	2/21/2023	50.4	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	2/22/2023	10.9	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	2/21/2023	6.12	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	2/21/2023	4.86	Yes	108 MW-3,MW-4,MW-2,MW-1	n/a	n/a	2.778	n/a	n/a	0.0001701 NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	2/22/2023	6.67	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	2/21/2023	6.77	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-12	6.35	4.51	2/22/2023	5.72	No	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	2/21/2023	6.72	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	2/21/2023	6.75	Yes	109 MW-3,MW-1,MW-2,MW-4	n/a	n/a	0	n/a	n/a	0.0003343 NP Inter (normality) 1 of 2

Exceeds Limit: MW-10, MW-11, MW-12

Prediction Limit
Interwell Non-parametric

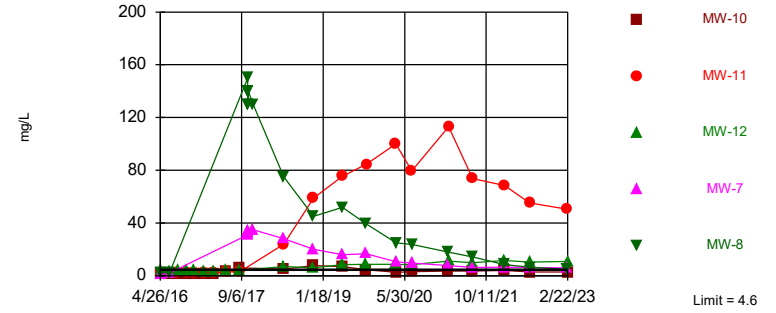


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 107 background values. 25.23% NDs. Annual per-constituent alpha = 0.001728. Individual comparison alpha = 0.000173 (1 of 2). Comparing 5 points to limit.

Constituent: Boron Analysis Run 5/27/2023 9:20 AM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Exceeds Limit: MW-11, MW-12, MW-7, MW-8

Prediction Limit
Interwell Non-parametric

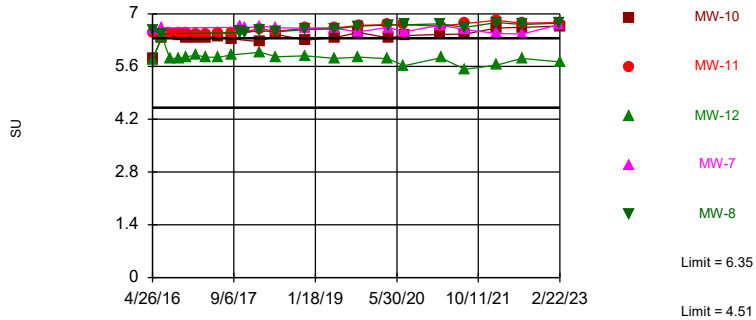


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 108 background values. 2.778% NDs. Annual per-constituent alpha = 0.001699. Individual comparison alpha = 0.0001701 (1 of 2). Comparing 5 points to limit.

Constituent: Chloride Analysis Run 5/27/2023 9:20 AM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Exceeds Limits: MW-10, MW-11, MW-7, MW-8

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 109 background values. Annual per-constituent alpha = 0.00334. Individual comparison alpha = 0.0003343 (1 of 2). Comparing 5 points to limit.

Constituent: pH Analysis Run 5/27/2023 9:20 AM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/27/2023 9:23 AM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-3 (bg)	MW-2 (bg)	MW-4 (bg)	MW-11	MW-1 (bg)	MW-10	MW-8	MW-12	MW-7
4/25/2016	0.028 (J)	0.0241 (J)	0.0414 (J)						
4/26/2016				0.094 (J)	0.0231 (J)				
4/27/2016						0.371	0.0662 (J)		0.253 (o)
4/28/2016								0.19	
6/20/2016		0.0284 (J)	0.0434 (J)		0.0227 (J)				
6/21/2016							0.0681 (J)		0.0768 (J)
6/22/2016	0.0433 (J)			0.0959 (J)				0.118	
6/23/2016						0.251			
8/8/2016		0.034 (J)			0.0278 (J)				
8/9/2016	0.0429 (J)		0.0453 (J)	0.0964 (J)					
8/10/2016						0.216		0.197	
8/24/2016	0.0431 (J)	0.0316 (J)	0.0451 (J)		0.0247 (J)				
10/3/2016		0.0367 (J)	0.0511 (J)		0.0307 (J)				
10/4/2016	0.04 (J)			0.0916 (J)					
10/5/2016						0.187		0.179	
10/26/2016	0.0375 (J)	0.0331 (J)	0.0507 (J)		0.0241 (J)				
11/21/2016	0.0406 (J)	0.035 (J)	0.0458 (J)	0.0929 (J)	0.0202 (J)	0.182			
11/22/2016								0.197	
1/17/2017		0.0259 (J)		0.0963 (J)	0.0201 (J)	0.2			
1/18/2017	0.0548 (J)		0.0445 (J)					0.186	
3/21/2017				0.0947 (J)		0.178		0.183	
3/22/2017	0.0344 (J)	0.0243 (J)	0.0432 (J)		0.0224 (J)				
4/18/2017	<0.1015	0.0206 (J)	0.0409 (J)		<0.1015				
5/30/2017				0.0926 (J)	<0.1015				
5/31/2017	0.0454 (J)	0.0234 (J)	0.0392 (J)			0.149		0.193	
8/23/2017	0.0425 (J)	0.0267 (J)	0.042 (J)	0.0968 (J)	0.0253 (J)	0.181		0.185	
10/12/2017							0.0687 (J)		0.0685 (J)
10/13/2017							0.0831 (J)		0.0674 (J)
10/14/2017							0.0702 (J)		0.0756 (J)
10/15/2017							0.0702 (J)		0.0719 (J)
10/16/2017							0.0707 (J)		0.0726 (J)
10/17/2017							0.0695 (J)		0.0716 (J)
11/16/2017							0.0675 (J)		0.0644 (J)
5/22/2018		0.0251 (J)		0.102	0.0224 (J)				
5/23/2018			0.0433 (J)				0.0693 (J)		0.0715 (J)
5/24/2018	0.0339 (J)					0.159		0.197	
6/12/2018	0.0371 (J)	0.0275 (J)	0.0478 (J)		0.0214 (J)				
10/17/2018	0.0596 (J)	0.0321 (J)	0.0468 (J)		0.0216 (J)				
11/19/2018	0.0514 (J)	0.0324 (J)	0.0526 (J)		0.0237 (J)	0.211		0.252	
11/20/2018				0.106			0.0771 (J)		0.0772 (J)
4/10/2019	<0.1015	<0.1015	0.0438 (J)		0.0304 (J)				
5/14/2019	<0.1015	<0.1015	<0.203 (o)		<0.1015				
5/15/2019				0.101 (J)		0.234	0.0689 (J)	0.239	0.0678 (J)
10/8/2019	0.0537 (J)	0.0371 (J)			<0.1015				0.073 (J)
10/9/2019						0.181	0.0723 (J)	0.315	
10/10/2019			0.0487 (J)	0.109					
10/16/2019	0.05 (J)	0.0419 (J)	0.0505 (J)		0.0385 (J)				
4/6/2020	<0.1015	<0.1015	0.0428 (J)	0.109	<0.1015			0.229	
4/8/2020						0.209	0.0683 (J)		0.077 (J)
7/13/2020	0.0366 (J)	<0.1015		0.111	<0.1015			0.266	
7/14/2020			0.0441 (J)			0.25			0.0865 (J)
7/15/2020							0.0723 (J)		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/27/2023 9:23 AM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-3 (bg)	MW-2 (bg)	MW-4 (bg)	MW-11	MW-1 (bg)	MW-10	MW-8	MW-12	MW-7
2/22/2021	<0.1015	<0.1015	0.0397 (J)		0.0307 (J)				
2/23/2021						0.205	0.0731 (J)		0.0803 (J)
2/24/2021				0.108				0.193	
7/12/2021	<0.1015	<0.1015	0.0411 (J)		<0.1015				
7/20/2021						0.201	0.0656 (J)	0.227	0.0721 (J)
7/21/2021				0.104					
1/25/2022	<0.1015	<0.1015	0.0408 (J)		<0.1015				
1/31/2022									0.0689 (J)
2/1/2022				0.105		0.177	0.0639 (J)	0.208	
7/5/2022	0.0374 (J)	<0.1015	0.0433 (J)	0.105	<0.1015			0.172	
7/6/2022						0.144	0.0686 (J)		0.0752 (J)
2/20/2023	<0.1015	<0.1015			<0.1015				
2/21/2023			0.0408 (J)	0.104			0.0609 (J)		0.0645 (J)
2/22/2023						0.122		0.153	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/27/2023 9:23 AM View: All

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-4 (bg)	MW-3 (bg)	MW-1 (bg)	MW-11	MW-7	MW-10	MW-8	MW-12
4/25/2016	1.9	1.53	1.32						
4/26/2016				1.94	2.16				
4/27/2016						1.71	1.46	2.34	
4/28/2016									4.12
6/20/2016	3.43	1.85		2.09					
6/21/2016						2.04		2.29	
6/22/2016			1.46		2.16				3.44
6/23/2016							1.49		
8/8/2016	3.31			2.18					
8/9/2016		1.95	1.35		2.19				
8/10/2016							1.55		4.15
8/24/2016	3.23	2.07	1.47	2.22					
10/3/2016	3.21	2.02		2.34					
10/4/2016			1.59		2.21				
10/5/2016							1.58		4.12
10/26/2016	3.35	2.07	1.27	2.34					
11/21/2016	3.34	2.39	1.38	2.5	2.24		1.62		
11/22/2016									3.98
1/17/2017	3.58			2.68	2.23		1.61		
1/18/2017		1.9	1.34						3.6
3/21/2017					2.5		1.6 (J)		3.6
3/22/2017	3.4	1.5 (J)	2	3.7					
4/18/2017	2.6	1.6 (J)	2.2	2.4					
5/30/2017				2.6	3.2				
5/31/2017	4.4	2.1	1.5 (J)				3.2		3.9
8/23/2017	4.4	2.3	1.8 (J)	2.7	2.8		6.1		4.2
10/12/2017						31		150	
10/13/2017						32		130	
10/14/2017						33		140	
10/15/2017						34		130	
10/16/2017						34		140	
10/17/2017						34		140	
11/16/2017						35		130	
5/22/2018	3.2			2.3	24				
5/23/2018		2				28		75	
5/24/2018			1.6 (J)				5		7.1
6/12/2018	3.7	1.7 (J)	1.4 (J)	2.3					
10/17/2018	4.6	1.5 (J)	<2	1.7 (J)					
11/19/2018	3	<2	<2	1.7 (J)			7.8		6.1
11/20/2018					59	20		45	
4/10/2019	1.76	1.88	2.25	2.36					
5/14/2019	2.98	1.82	2.28	2.28					
5/15/2019					75.4	15.9	6.93	52	8.51
10/8/2019	4.26		1.36	2.31		16.8			
10/9/2019							4.51	39.2	8.73
10/10/2019		1.93			84.6				
10/16/2019	4.04	1.92	1.4	2.42					
4/6/2020	2.43	1.5	1.72	2.01	100				8.58
4/8/2020						10.6	2.64	24.9	
7/13/2020	4.05		1.34	2.1	79.6				8.35
7/14/2020		1.61				9.68	3.09		
7/15/2020								23.8	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/27/2023 9:23 AM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2 (bg)	MW-4 (bg)	MW-3 (bg)	MW-1 (bg)	MW-11	MW-7	MW-10	MW-8	MW-12
2/22/2021	1.72	1.52	2.22	2.16					
2/23/2021						7.85	3.63	17.9	
2/24/2021					113				11.2
7/12/2021	2.36	1.56	2.13	2.19					
7/20/2021						6.35	3.64	14.3	9.85
7/21/2021					73.8				
1/25/2022	2.14	1.54	2.12	2.09					
1/31/2022						6.4			
2/1/2022					68.3		3.97	8.56	11.5
7/5/2022	2.53	1.63	1.59	2.07	55.200001				10.5
7/6/2022						6.25	2.79	6.5	
2/20/2023	1.7		1.94	2.05					
2/21/2023		1.58			50.400002	6.12		4.86	
2/22/2023							2.77		10.9

Prediction Limit

Constituent: pH (SU) Analysis Run 5/27/2023 9:23 AM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-3 (bg)	MW-4 (bg)	MW-2 (bg)	MW-1 (bg)	MW-11	MW-8	MW-10	MW-7	MW-12
4/25/2016	5.56	6.22	5.94						
4/26/2016				5.2	6.49				
4/27/2016						6.55	5.8	6.6	
4/28/2016									5.78
6/20/2016		6.21	5.96	5.18					
6/21/2016						6.47		6.62	
6/22/2016	5.57				6.51				6.41
6/23/2016							6.38		
8/8/2016			5.88	5.12					
8/9/2016	5.67	6.11			6.49				
8/10/2016							6.47		5.82
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)				6.51 (D)				
10/5/2016							6.42 (D)		5.82 (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)	6.48		6.38		
11/22/2016									5.86
1/17/2017			5.87 (D)	5.17 (D)	6.46		6.35		
1/18/2017	5.11 (D)	6.09 (D)							5.9
3/21/2017					6.47		6.38		5.85
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)	6.48				
5/31/2017	4.56 (D)	6.13 (D)	5.85 (D)				6.4		5.84
8/23/2017	4.77 (D)	6.12 (D)	5.89 (D)	5.12 (D)	6.48		6.33		5.91
10/12/2017						6.5		6.64	
10/13/2017						6.51		6.64	
10/14/2017						6.53		6.66	
10/15/2017						6.53		6.67	
10/16/2017						6.54		6.67	
10/17/2017						6.54		6.66	
11/16/2017						6.51		6.62	
2/13/2018	5.67	6.22	6.21	5.18					
2/14/2018					6.6	6.55		6.67	
2/15/2018							6.26		5.98
5/22/2018			6.04	5.2	6.54				
5/23/2018		6.21				6.52		6.63	
5/24/2018	5.19						6.45		5.86
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 (Eo)	6.16	6.03	5.09			6.3		5.88
11/20/2018					6.61	6.58		6.61	
4/10/2019	5.54	6.14	6.1	5.11					
5/14/2019	5.71	6.23	6.07	5.19					
5/15/2019					6.62	6.6	6.37	6.61	5.82
10/8/2019	4.98		5.96	5.12				6.52	
10/9/2019						6.67	6.5		5.85
10/10/2019		6.15			6.69				
10/16/2019	4.51	6.19	5.98	5.16					
4/6/2020	5.91	6.35	6.21	5.21	6.72				5.81
4/8/2020						6.7	6.36	6.64	

Prediction Limit

Constituent: pH (SU) Analysis Run 5/27/2023 9:23 AM View: All
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-3 (bg)	MW-4 (bg)	MW-2 (bg)	MW-1 (bg)	MW-11	MW-8	MW-10	MW-7	MW-12
7/13/2020	5.16		5.84	5.14	6.71				5.62
7/14/2020		6.2					6.42	6.52	
7/15/2020						6.71			
2/22/2021	5.59	6.19	6.1	5.06					
2/23/2021						6.73	6.45	6.7	
2/24/2021					6.67				5.83
7/12/2021	5.86	6.06	6.16	5.13					
7/20/2021						6.64	6.46	6.58	5.53
7/21/2021					6.74				
1/25/2022	5.9	6.3	6.22	5.11					
1/31/2022								6.48	
2/1/2022					6.83	6.77	6.62		5.64
7/5/2022	5.34	6.12	6.15	5.01	6.75				5.82
7/6/2022						6.72	6.64	6.46	
2/20/2023	6.01		6.24	5.07					
2/21/2023		6.35			6.77	6.75		6.72	
2/22/2023							6.67		5.72

FIGURE F.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/18/2023, 2:09 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.004867	144	124	Yes	27	37.04	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.002161	101	81	Yes	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01126	181	124	Yes	27	33.33	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	12.14	125	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.219	134	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-23.35	-100	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-12	0.02163	129	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-2 (bg)	0.01459	183	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01675	-154	-124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05083	145	87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04641	169	124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.04545	156	87	Yes	21	0	n/a	n/a	0.01	NP

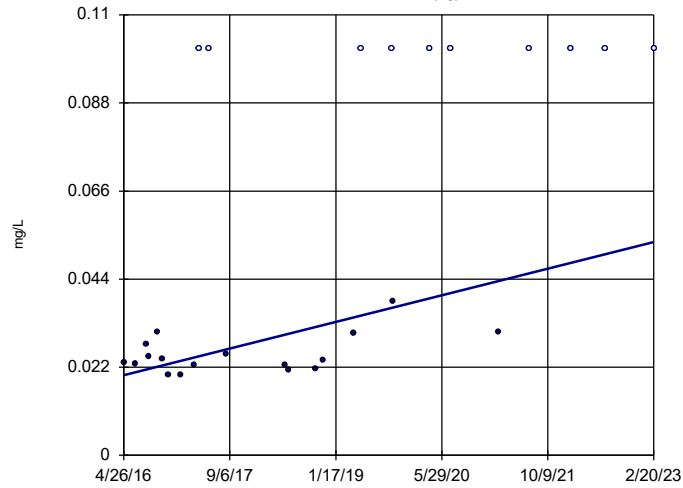
Trend Tests - Prediction Limit Exceedances - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/18/2023, 2:09 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.004867	144	124	Yes	27	37.04	n/a	n/a	0.01	NP
Boron (mg/L)	MW-10	-0.009517	-65	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.002161	101	81	Yes	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-12	0.004921	34	81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01126	181	124	Yes	27	33.33	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0.006729	119	124	No	27	29.63	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0004052	-61	-118	No	26	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-0.03183	-67	-124	No	27	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	12.14	125	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.219	134	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.144	-72	-124	No	27	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.07161	89	124	No	27	7.407	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.06041	-97	-124	No	27	3.704	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-7	-4.869	-73	-81	No	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-23.35	-100	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-1 (bg)	-0.003095	-33	-131	No	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-12	0.02163	129	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-2 (bg)	0.01459	183	131	Yes	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-3 (bg)	0.002778	21	131	No	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-4 (bg)	0.007162	85	131	No	28	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-7	0.001693	32	87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01675	-154	-124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-10	0.04029	87	87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05083	145	87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04641	169	124	Yes	27	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	0.03075	30	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-4 (bg)	0.01607	93	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-7	-0.01489	-38	-87	No	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.04545	156	87	Yes	21	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

MW-1 (bg)

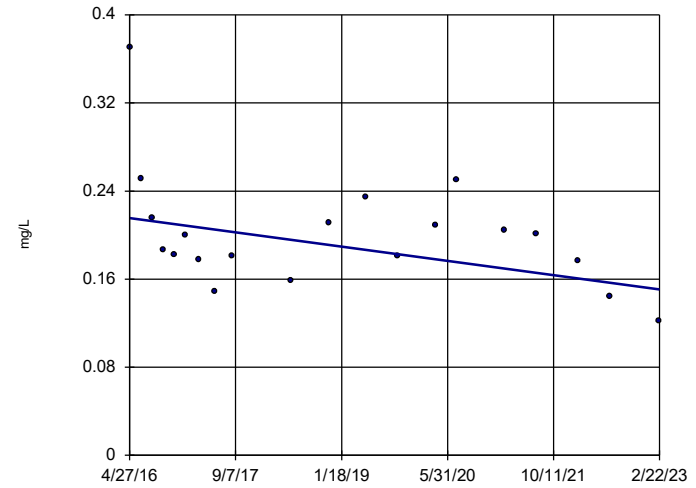


n = 27
Slope = 0.004867
units per year.
Mann-Kendall
statistic = 144
critical = 124
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-10

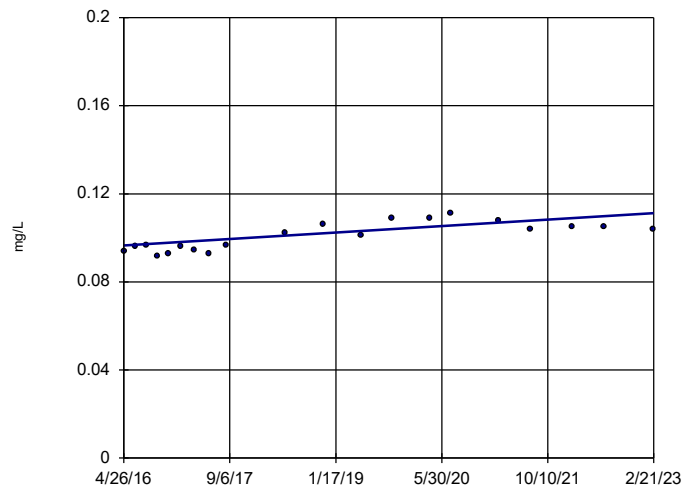


n = 20
Slope = -0.009517
units per year.
Mann-Kendall
statistic = -65
critical = -81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-11

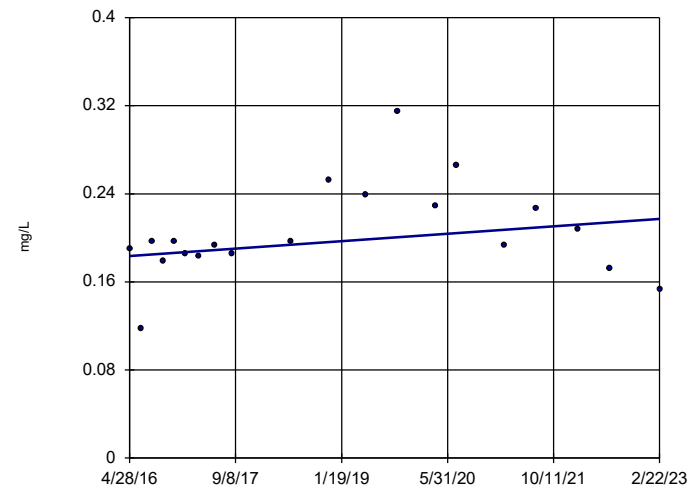


n = 20
Slope = 0.002161
units per year.
Mann-Kendall
statistic = 101
critical = 81
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-12

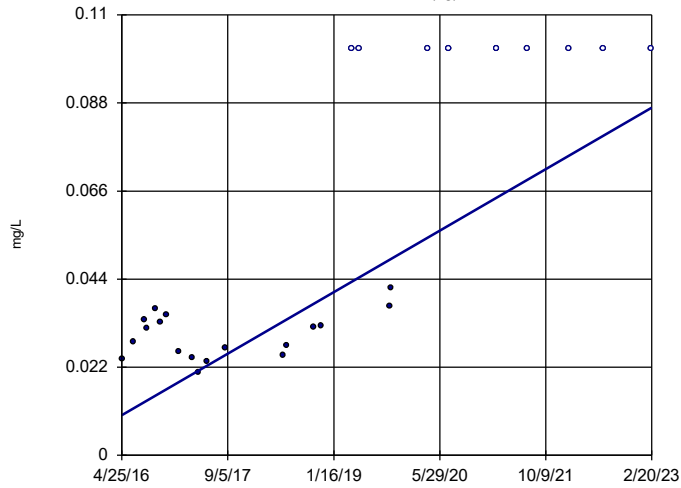


n = 20
Slope = 0.004921
units per year.
Mann-Kendall
statistic = 34
critical = 81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)

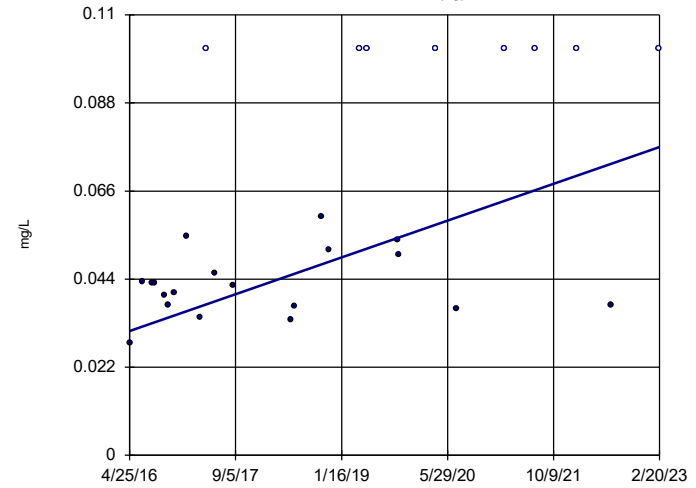


n = 27
Slope = 0.01126
units per year.
Mann-Kendall
statistic = 181
critical = 124
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-3 (bg)

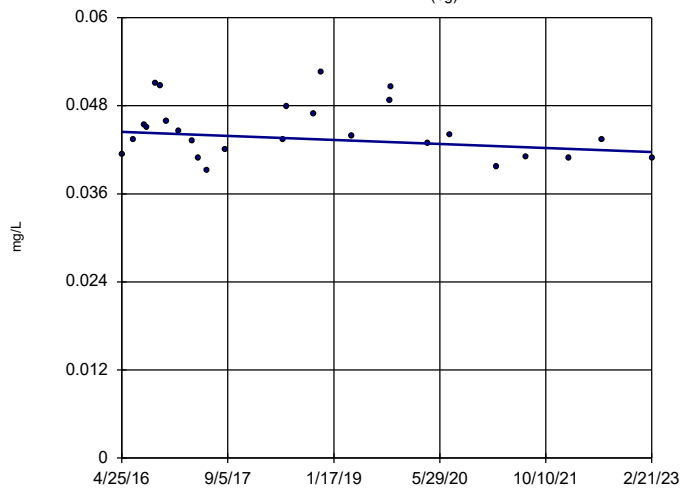


n = 27
Slope = 0.006729
units per year.
Mann-Kendall
statistic = 119
critical = 124
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-4 (bg)

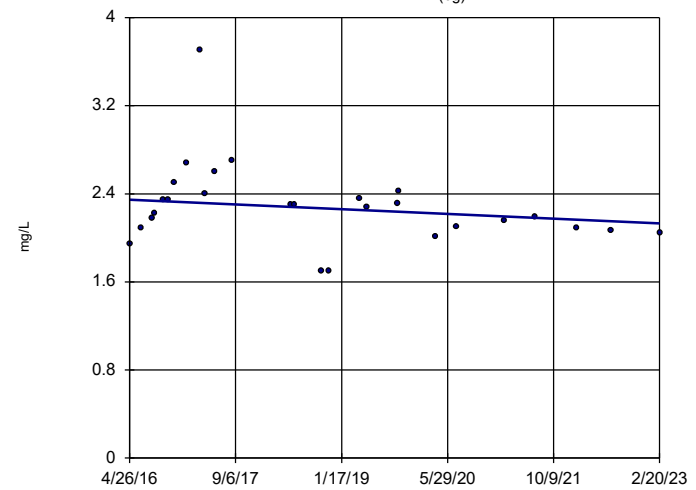


n = 26
Slope = -0.0004052
units per year.
Mann-Kendall
statistic = -61
critical = -118
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

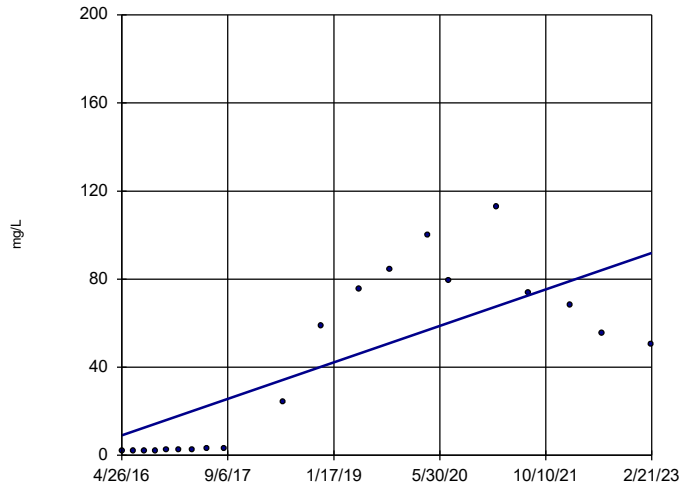


n = 27
Slope = -0.03183
units per year.
Mann-Kendall
statistic = -67
critical = -124
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-11

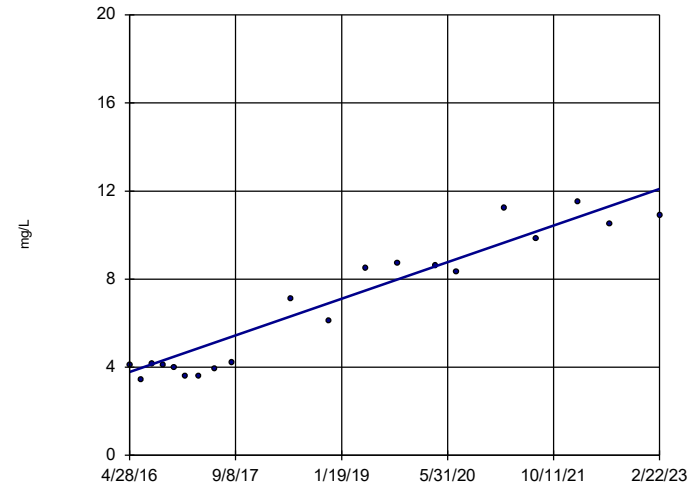


n = 20
 Slope = 12.14
 units per year.
 Mann-Kendall
 statistic = 125
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 5/18/2023 2:07 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-12

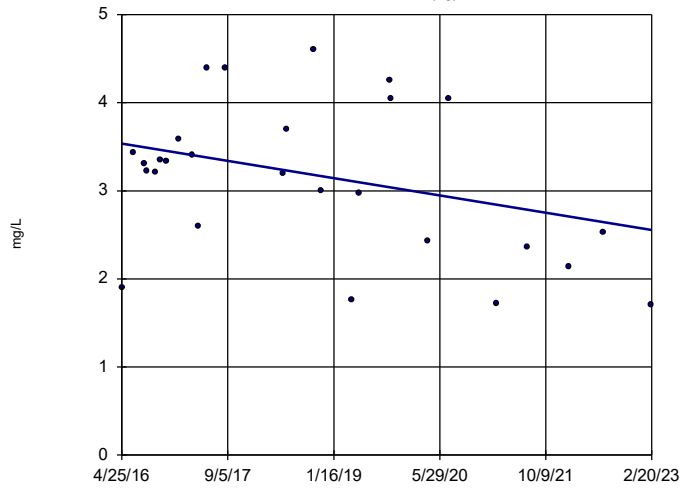


n = 20
 Slope = 1.219
 units per year.
 Mann-Kendall
 statistic = 134
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 5/18/2023 2:07 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)



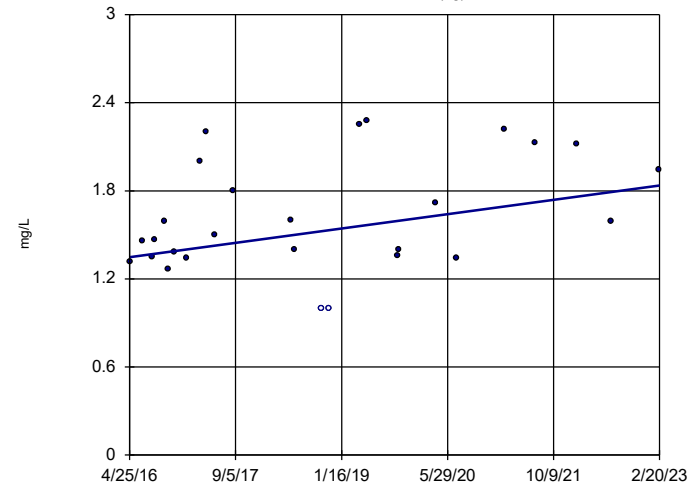
n = 27
 Slope = -0.144
 units per year.
 Mann-Kendall
 statistic = -72
 critical = -124
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 5/18/2023 2:07 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)

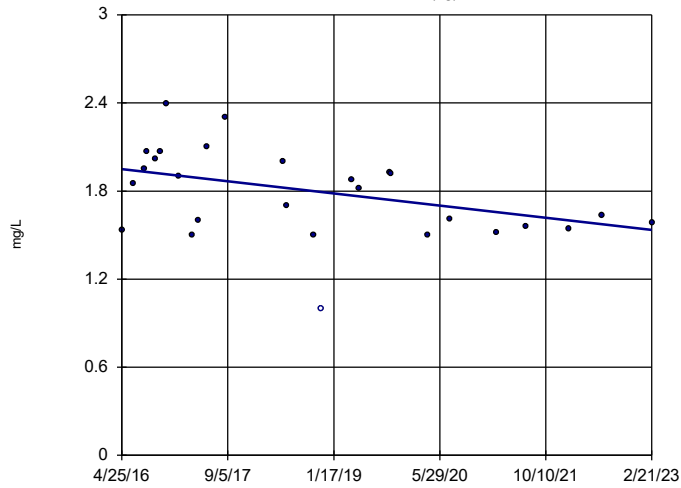


n = 27
 Slope = 0.07161
 units per year.
 Mann-Kendall
 statistic = 89
 critical = 124
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 5/18/2023 2:07 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-4 (bg)

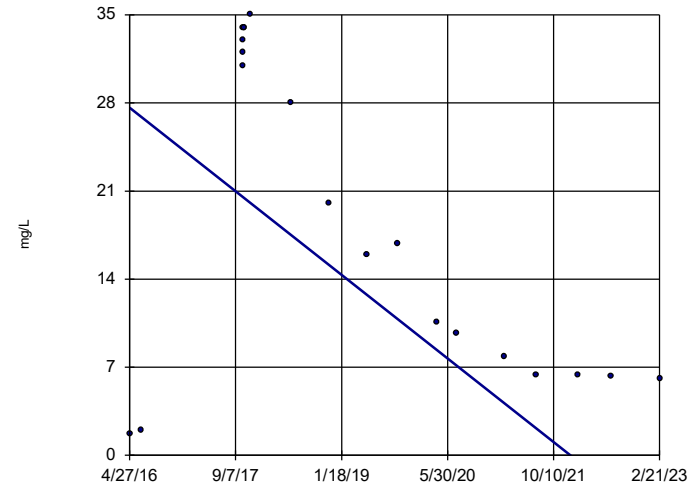


n = 27
Slope = -0.06041
units per year.
Mann-Kendall
statistic = -97
critical = -124
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 5/18/2023 2:07 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-7

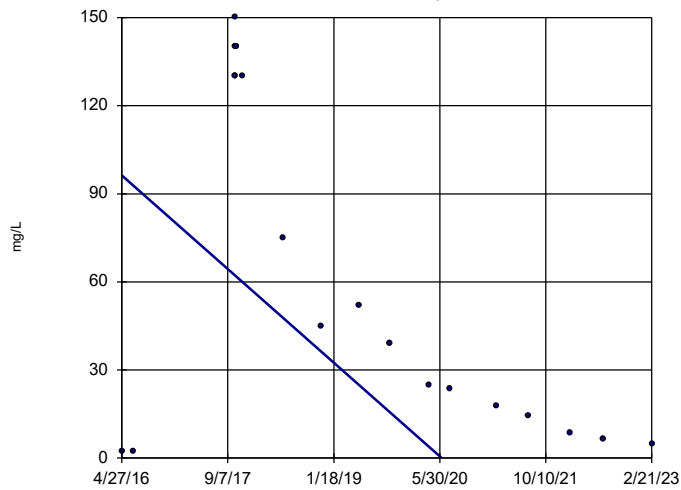


n = 20
Slope = -4.869
units per year.
Mann-Kendall
statistic = -73
critical = -81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-8

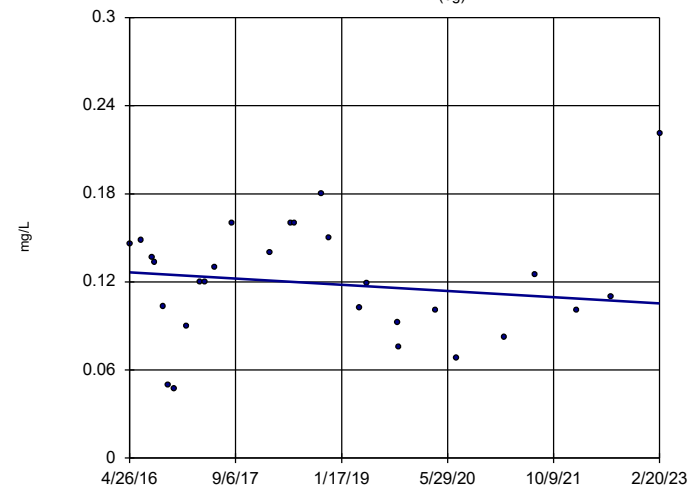


n = 20
Slope = -23.35
units per year.
Mann-Kendall
statistic = -100
critical = -81
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

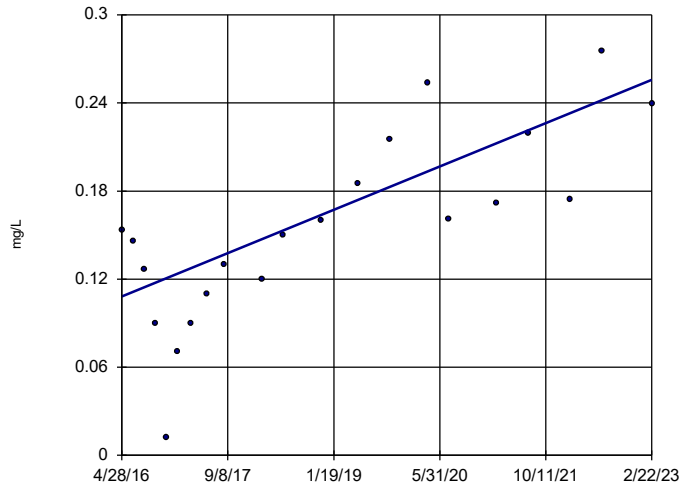


n = 28
Slope = -0.003095
units per year.
Mann-Kendall
statistic = -33
critical = -131
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

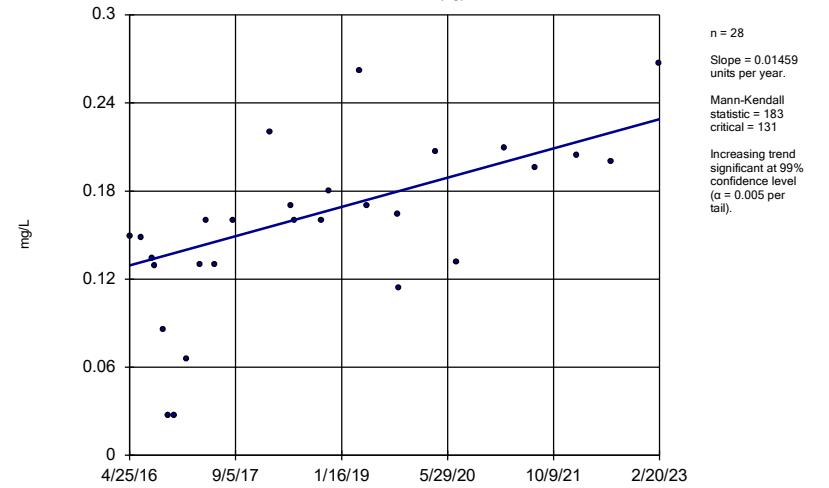
MW-12



Constituent: Fluoride Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

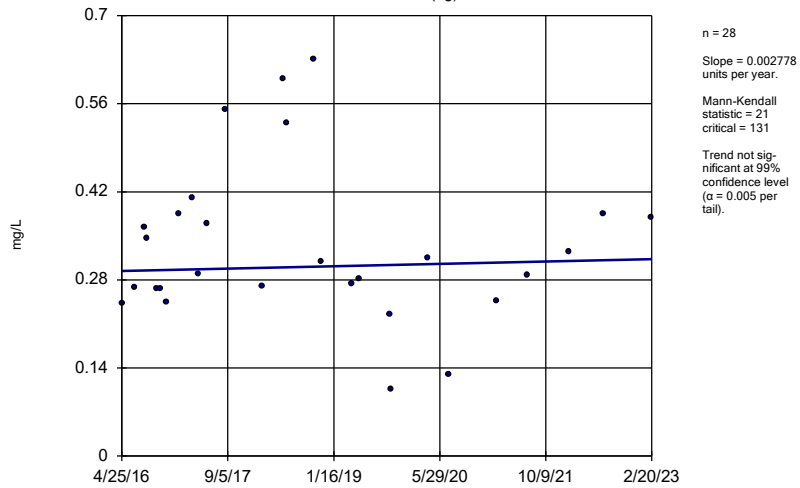
MW-2 (bg)



Constituent: Fluoride Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

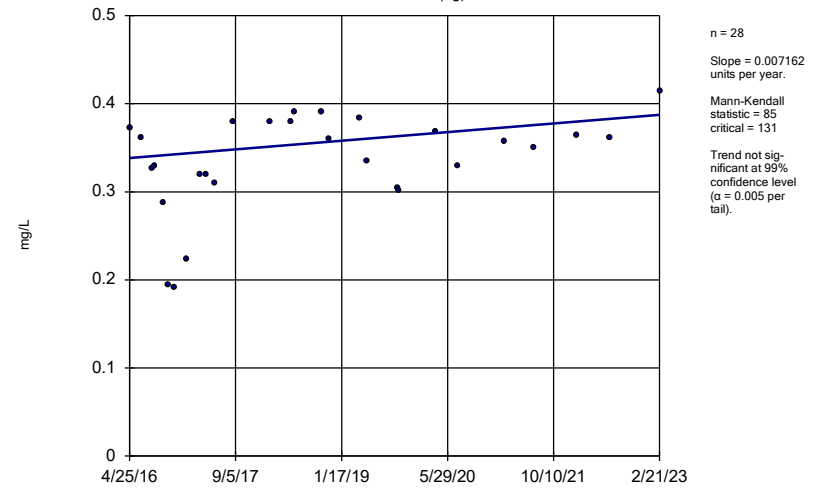
MW-3 (bg)



Constituent: Fluoride Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

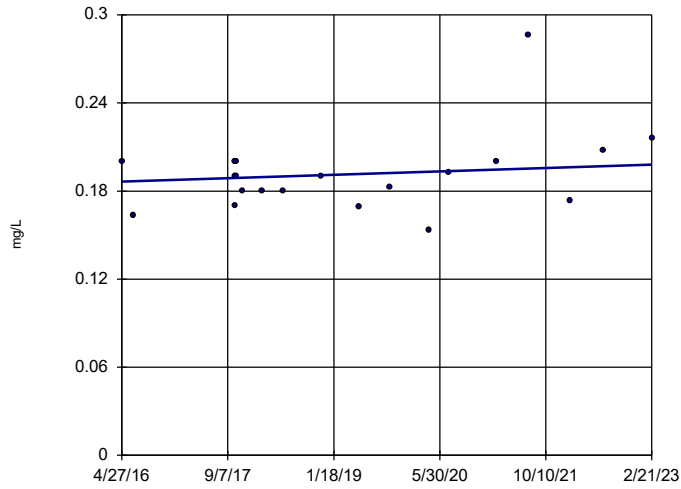
MW-4 (bg)



Constituent: Fluoride Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-7

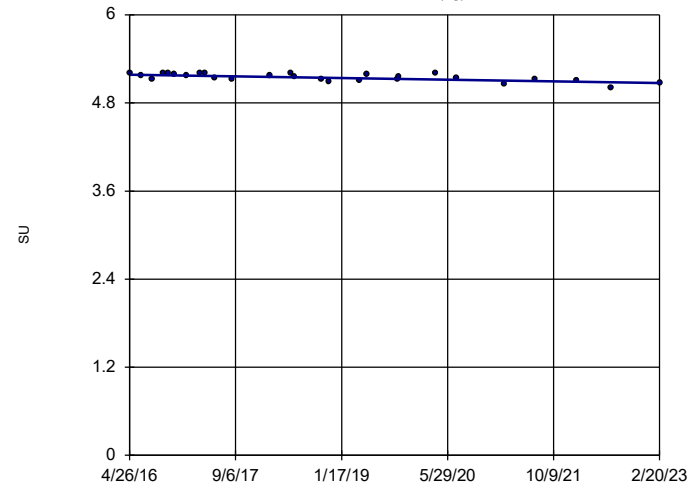


n = 21
 Slope = 0.001693
 units per year.
 Mann-Kendall
 statistic = 32
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

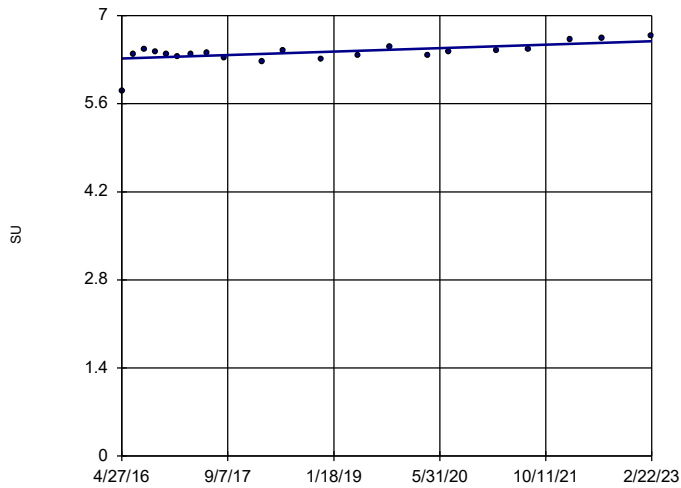


n = 27
 Slope = -0.01675
 units per year.
 Mann-Kendall
 statistic = -154
 critical = -124
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-10

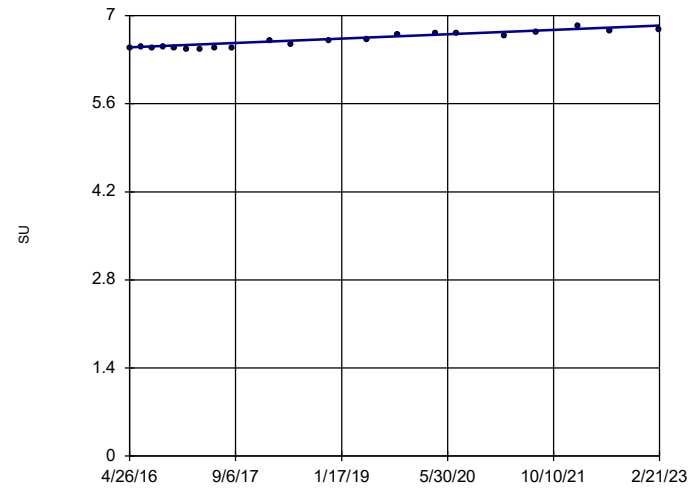


n = 21
 Slope = 0.04029
 units per year.
 Mann-Kendall
 statistic = 87
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-11

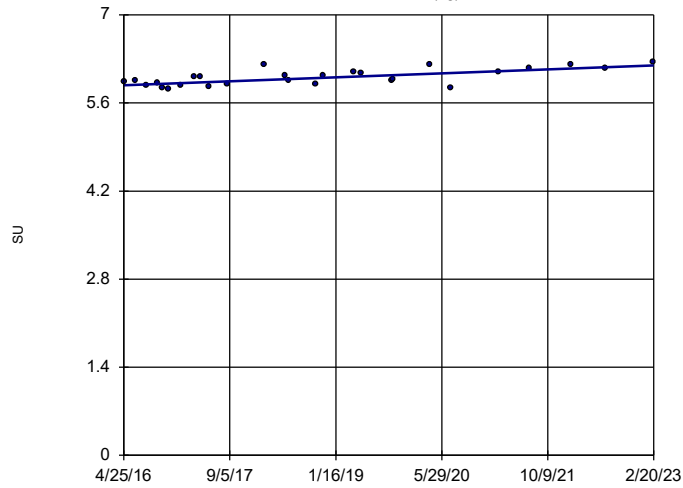


n = 21
 Slope = 0.05083
 units per year.
 Mann-Kendall
 statistic = 145
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)

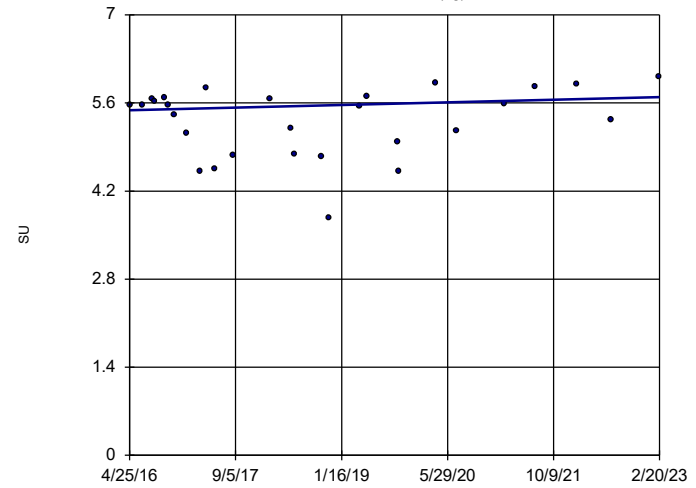


n = 27
 Slope = 0.04641
 units per year.
 Mann-Kendall
 statistic = 169
 critical = 124
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-3 (bg)

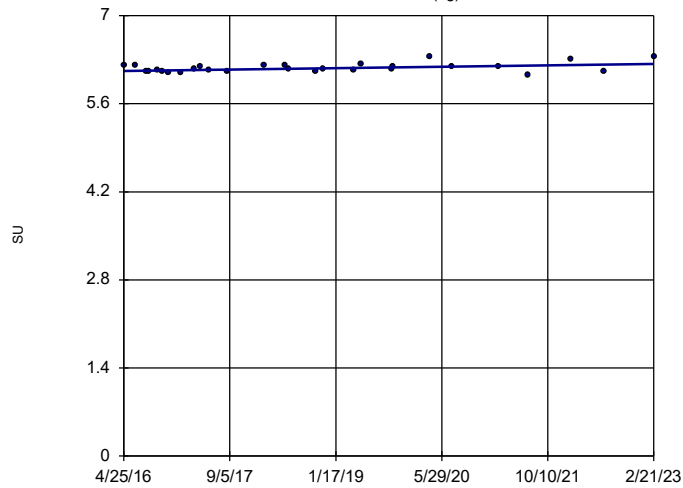


n = 28
 Slope = 0.03075
 units per year.
 Mann-Kendall
 statistic = 30
 critical = 131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-4 (bg)

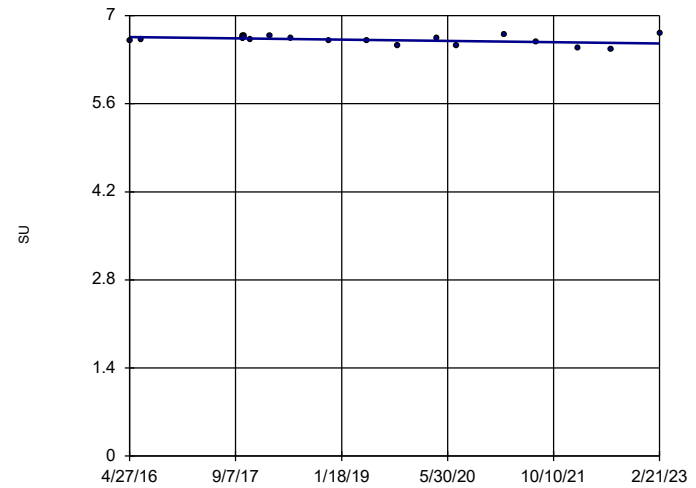


n = 28
 Slope = 0.01607
 units per year.
 Mann-Kendall
 statistic = 93
 critical = 131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-7

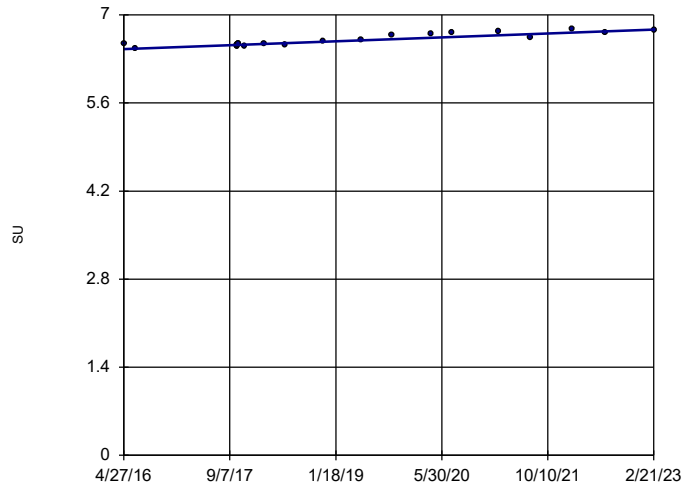


n = 21
 Slope = -0.01489
 units per year.
 Mann-Kendall
 statistic = -38
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-8



n = 21

Slope = 0.04545
units per year.

Mann-Kendall
statistic = 156
critical = 87

Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH Analysis Run 5/18/2023 2:08 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

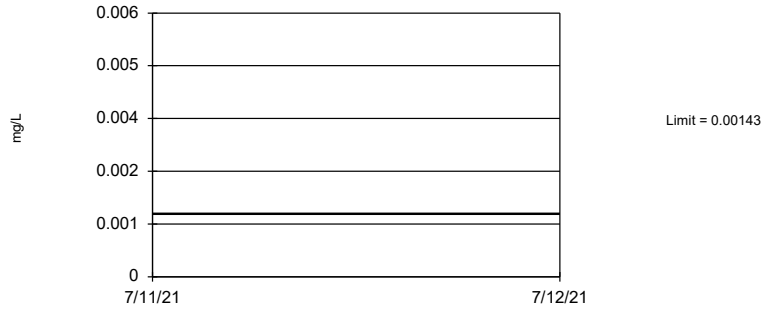
FIGURE G.

Upper Tolerance Limits Summary Table

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 12/6/2021, 10:45 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.00143	n/a	n/a	n/a	96	n/a	n/a	93.75	n/a	n/a	0.007269	NP Inter
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	96	n/a	n/a	83.33	n/a	n/a	0.007269	NP Inter
Barium (mg/L)	n/a	0.0165	n/a	n/a	n/a	96	n/a	n/a	0	n/a	n/a	0.007269	NP Inter
Beryllium (mg/L)	n/a	0.0121	n/a	n/a	n/a	94	n/a	n/a	84.04	n/a	n/a	0.008054	NP Inter
Cadmium (mg/L)	n/a	0.00598	n/a	n/a	n/a	94	n/a	n/a	45.74	n/a	n/a	0.008054	NP Inter
Chromium (mg/L)	n/a	0.0105	n/a	n/a	n/a	96	n/a	n/a	89.58	n/a	n/a	0.007269	NP Inter
Cobalt (mg/L)	n/a	0.49	n/a	n/a	n/a	94	n/a	n/a	26.6	n/a	n/a	0.008054	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	1.47	n/a	n/a	n/a	92	n/a	n/a	0	n/a	n/a	0.008924	NP Inter
Fluoride (mg/L)	n/a	0.63	n/a	n/a	n/a	100	n/a	n/a	0	n/a	n/a	0.005921	NP Inter
Lead (mg/L)	n/a	0.00108	n/a	n/a	n/a	95	n/a	n/a	95.79	n/a	n/a	0.007651	NP Inter
Lithium (mg/L)	n/a	0.419	n/a	n/a	n/a	96	n/a	n/a	0	n/a	n/a	0.007269	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	96	n/a	n/a	100	n/a	n/a	0.007269	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	96	n/a	n/a	97.92	n/a	n/a	0.007269	NP Inter
Selenium (mg/L)	n/a	0.0209	n/a	n/a	n/a	96	n/a	n/a	60.42	n/a	n/a	0.007269	NP Inter
Thallium (mg/L)	n/a	0.000226	n/a	n/a	n/a	96	n/a	n/a	96.88	n/a	n/a	0.007269	NP Inter

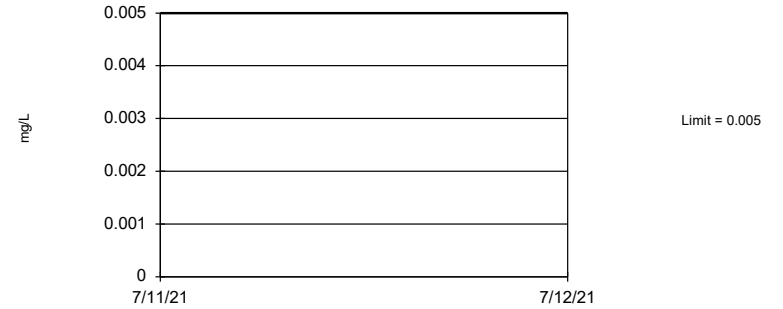
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 93.75% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Antimony Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

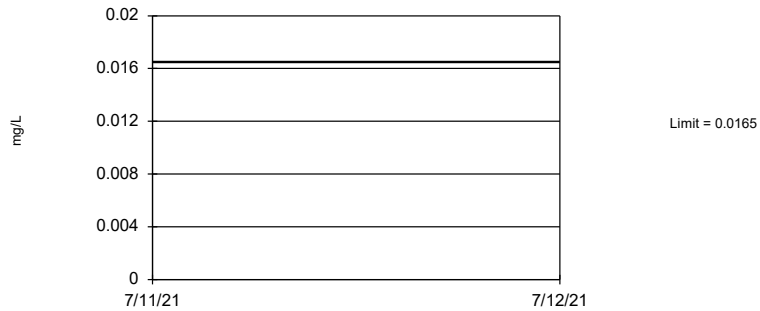
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 83.33% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Arsenic Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

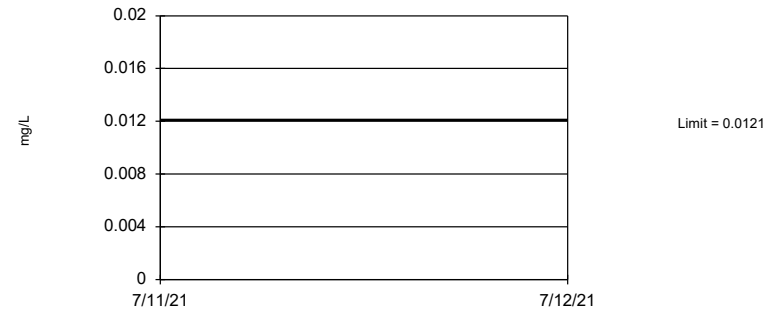
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Barium Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 94 background values. 84.04% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008054.

Constituent: Beryllium Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

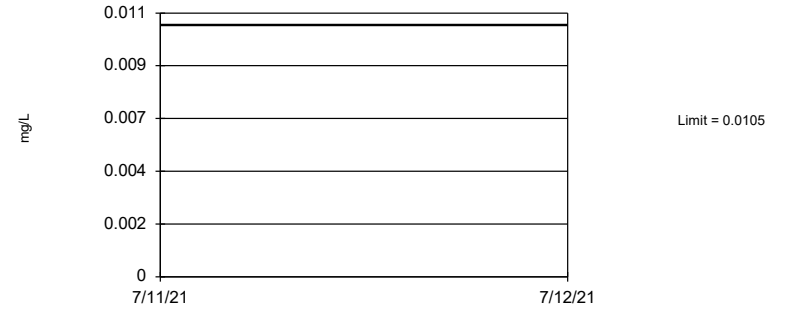
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 94 background values. 45.74% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008054.

Constituent: Cadmium Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

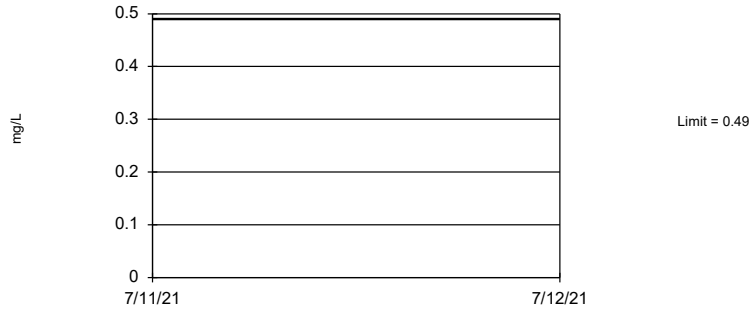
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 89.58% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Chromium Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

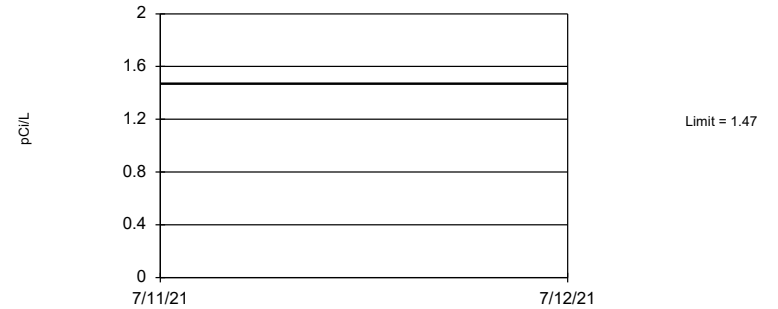
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 94 background values. 26.6% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008054.

Constituent: Cobalt Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

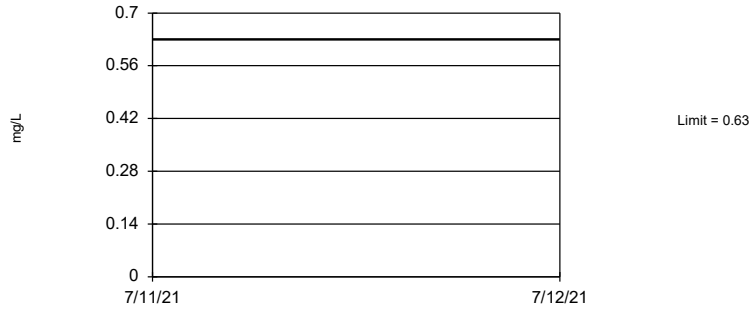
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 92 background values. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008924.

Constituent: Combined Radium 226 + 228 Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

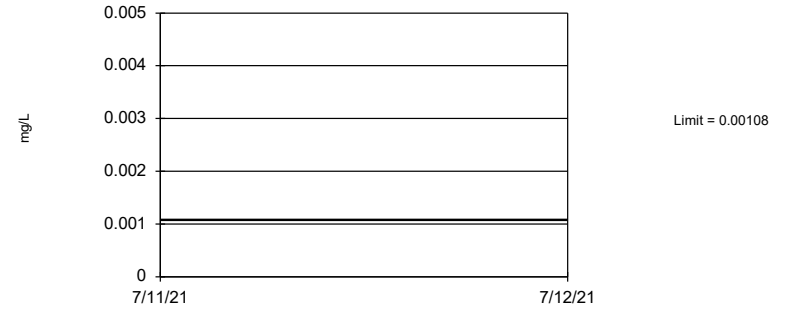
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 100 background values. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.005921.

Constituent: Fluoride Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

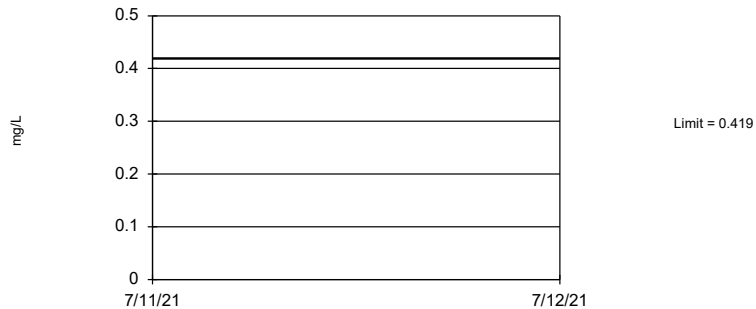
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 95.79% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Lead Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

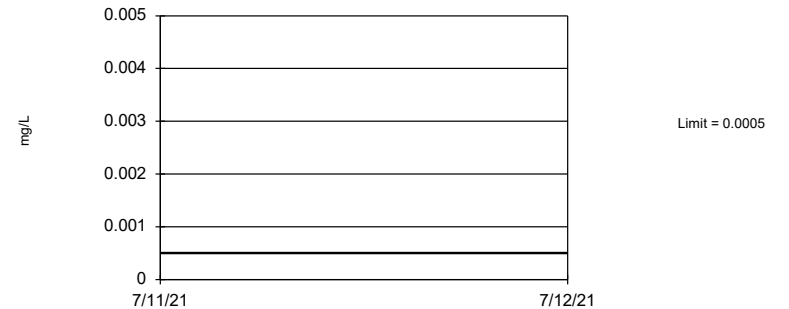
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Lithium Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

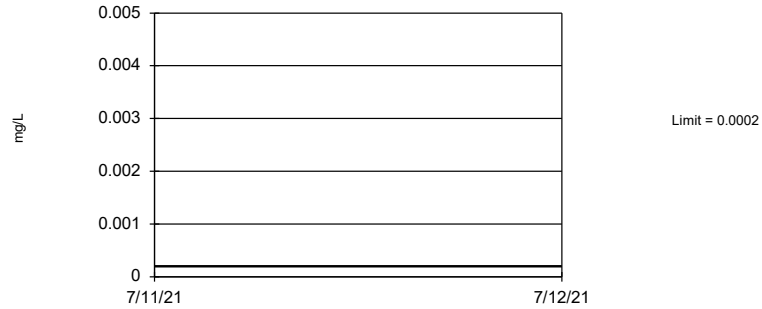
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Mercury Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

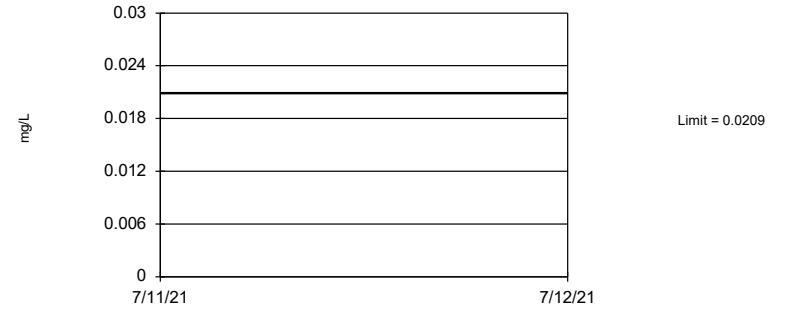
Tolerance Limit
Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 97.92% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Molybdenum Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

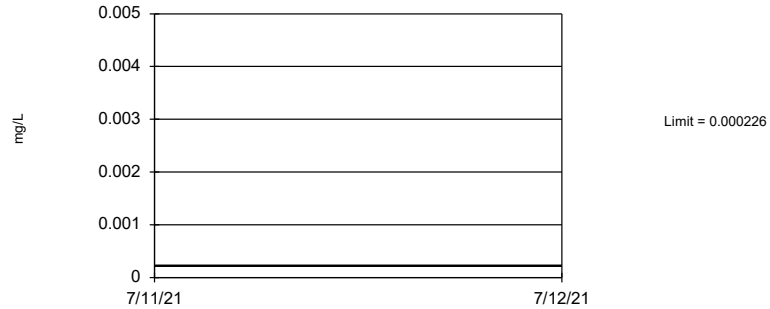
Tolerance Limit
Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 60.42% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Selenium Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Tolerance Limit
Interwell Non-parametric



NP test selected by user. Limit is highest of 96 background values. 96.88% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007269.

Constituent: Thallium Analysis Run 12/6/2021 10:26 AM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

FIGURE H.

GORGAS BALF GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.0165	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	0.49	0.49
Combined Radium-226/228	pCi/L	1.47	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00108	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.0209	0.05
Thallium	mg/L	0.000226	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 2021.

FIGURE I.

Confidence Intervals Summary Table - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:33 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-12	0.06847	0.05414	0.01	Yes	8	0	None	x^2	0.01	Param.

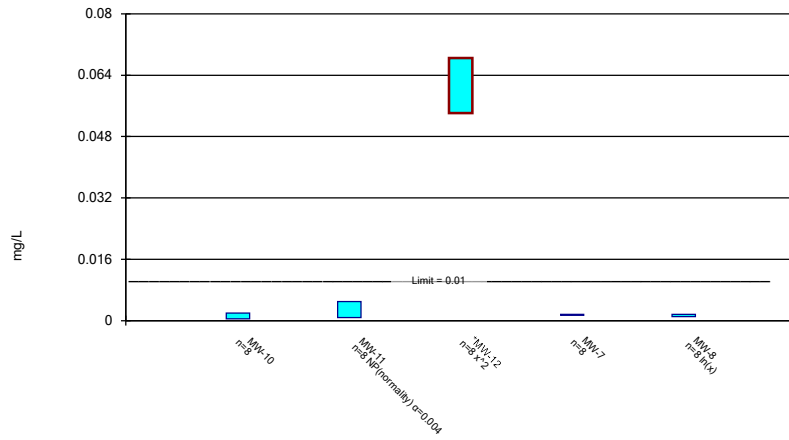
Confidence Intervals Summary Table - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 5/23/2023, 3:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MW-10	0.001955	0.0005027	0.01	No	8	12.5	None	No	0.01	Param.
Arsenic (mg/L)	MW-11	0.005	0.000834	0.01	No	8	37.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	MW-12	0.06847	0.05414	0.01	Yes	8	0	None	x^2	0.01	Param.
Arsenic (mg/L)	MW-7	0.001617	0.001398	0.01	No	8	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001656	0.00103	0.01	No	8	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MW-10	0.0245	0.0198	2	No	8	0	None	No	0.004	NP (normality)
Barium (mg/L)	MW-11	0.01615	0.014	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	MW-12	0.01309	0.01101	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.0147	0.01306	2	No	8	0	None	x^3	0.01	Param.
Barium (mg/L)	MW-8	0.01457	0.0136	2	No	8	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-10	0.001243	0.0006032	0.004	No	8	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MW-10	0.000203	0.00008	0.005	No	8	62.5	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-10	0.001015	0.00021	0.1	No	8	62.5	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-11	0.001015	0.000269	0.1	No	8	75	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-12	0.001015	0.00028	0.1	No	8	75	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-7	0.001015	0.00032	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-8	0.001015	0.00025	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-10	0.01969	0.003799	0.49	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-11	0.005	0.00025	0.49	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	MW-12	0.05358	0.0461	0.49	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.006127	0.003563	0.49	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.008278	0.006947	0.49	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-10	0.688	0.1247	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-11	0.951	0.665	5	No	8	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-12	1.46	0.9096	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-7	0.7205	0.291	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-8	2.19	0.398	5	No	8	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	MW-10	0.2443	0.1339	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-11	0.1403	0.09031	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-12	0.2578	0.1695	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-7	0.2435	0.1595	4	No	8	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-8	0.2308	0.1714	4	No	8	0	None	No	0.01	Param.
Lead (mg/L)	MW-10	0.000203	0.00008	0.015	No	8	75	None	No	0.004	NP (normality)
Lead (mg/L)	MW-11	0.00145	0.000203	0.015	No	8	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	MW-12	0.005	0.000178	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	MW-8	0.000203	0.000088	0.015	No	8	50	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-10	0.2374	0.1586	0.419	No	8	0	None	No	0.01	Param.
Lithium (mg/L)	MW-11	0.2938	0.2225	0.419	No	8	0	None	No	0.01	Param.
Lithium (mg/L)	MW-12	0.08739	0.06401	0.419	No	8	0	None	No	0.01	Param.
Lithium (mg/L)	MW-7	0.131	0.0907	0.419	No	8	0	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-8	0.163	0.1263	0.419	No	8	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-10	0.000203	0.00008	0.1	No	8	75	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-11	0.01	0.0013	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-12	0.01	0.000088	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-7	0.01	0.000846	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-8	0.0129	0.00031	0.1	No	8	37.5	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-10	0.00273	0.000611	0.05	No	8	50	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-12	0.001015	0.00051	0.05	No	8	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	MW-7	0.001015	0.000677	0.05	No	8	87.5	None	No	0.004	NP (NDs)
Thallium (mg/L)	MW-12	0.000203	0.0001	0.002	No	8	75	None	No	0.004	NP (normality)

Parametric and Non-Parametric (NP) Confidence Interval

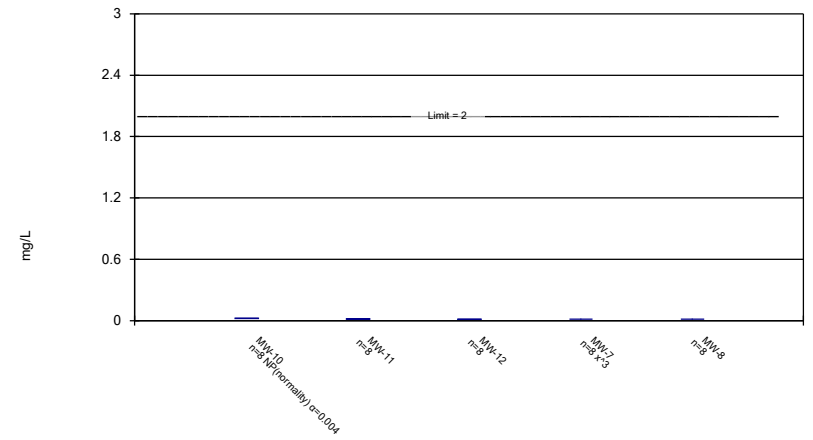
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

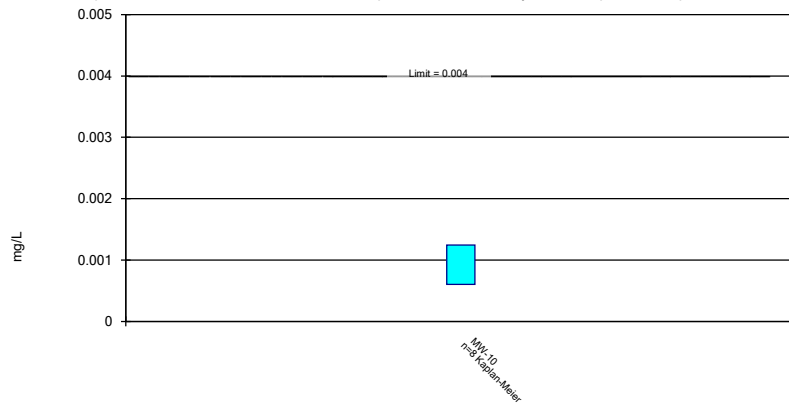
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Parametric Confidence Interval

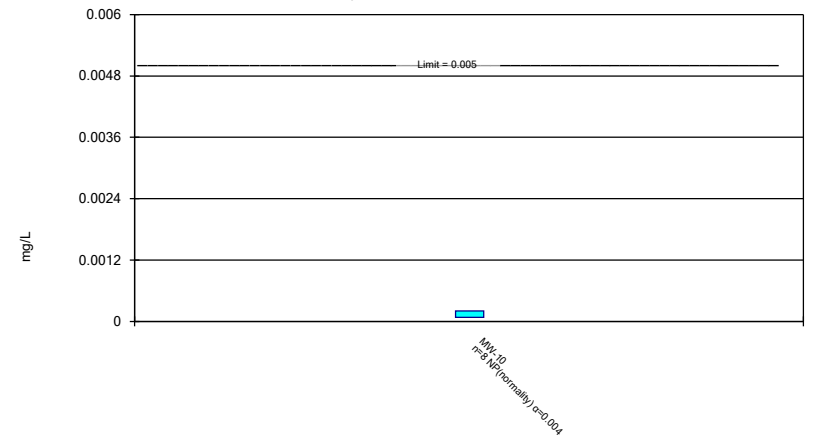
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

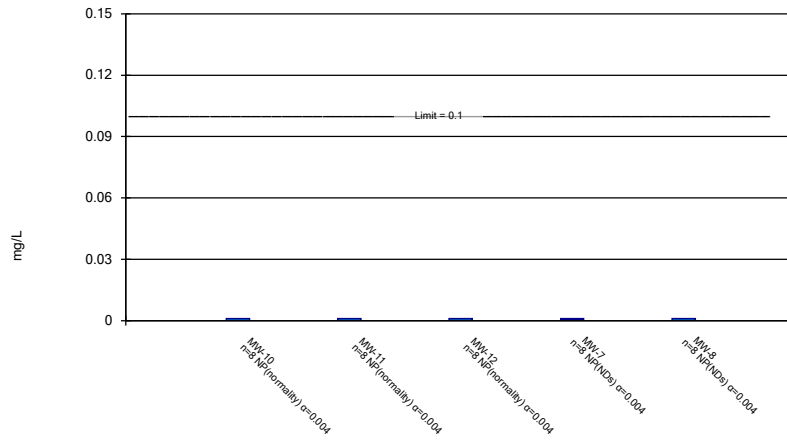
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

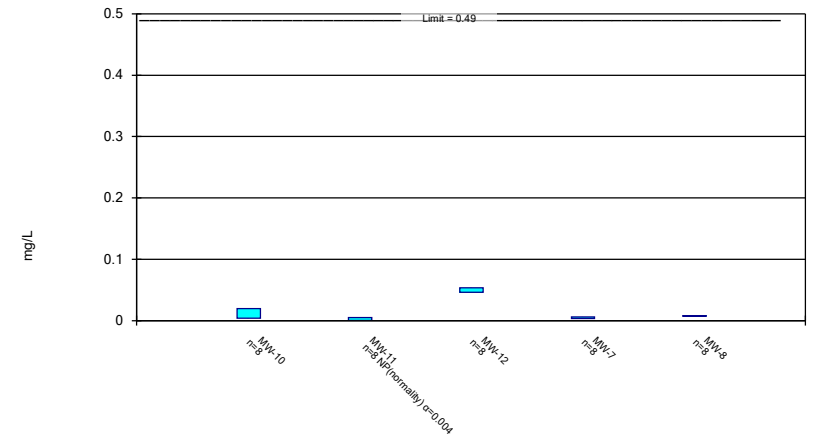
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

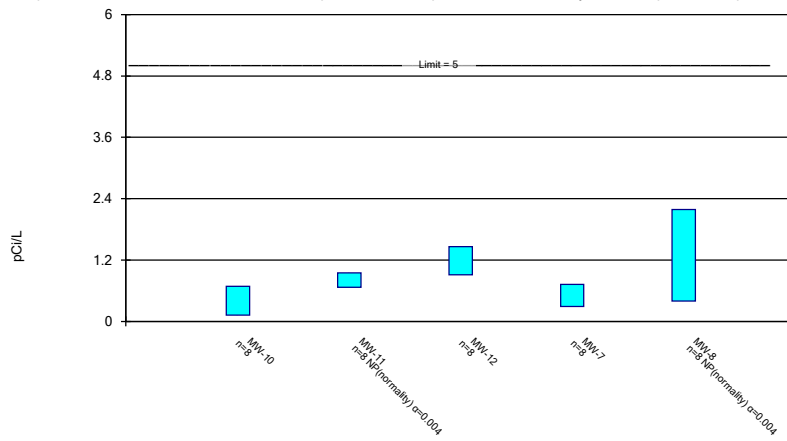
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

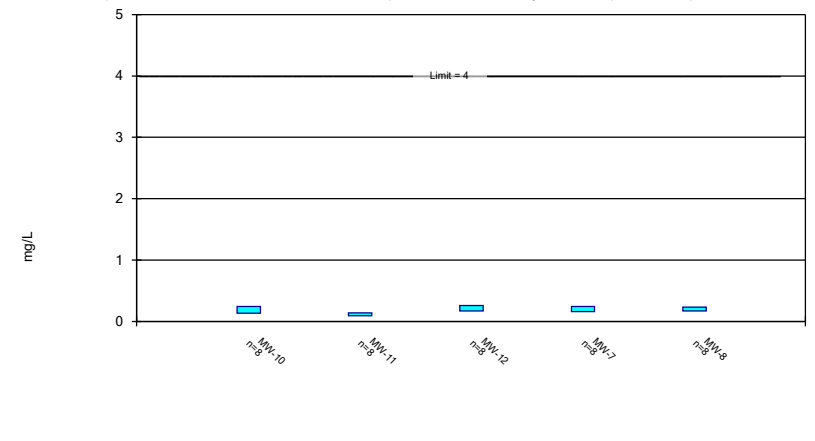
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Parametric Confidence Interval

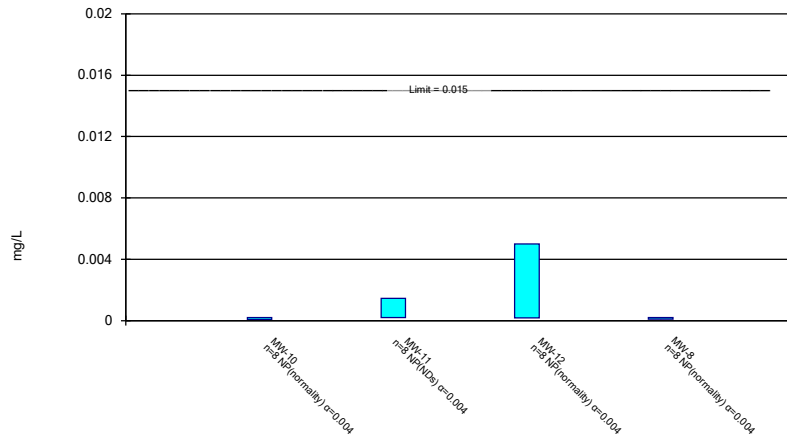
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

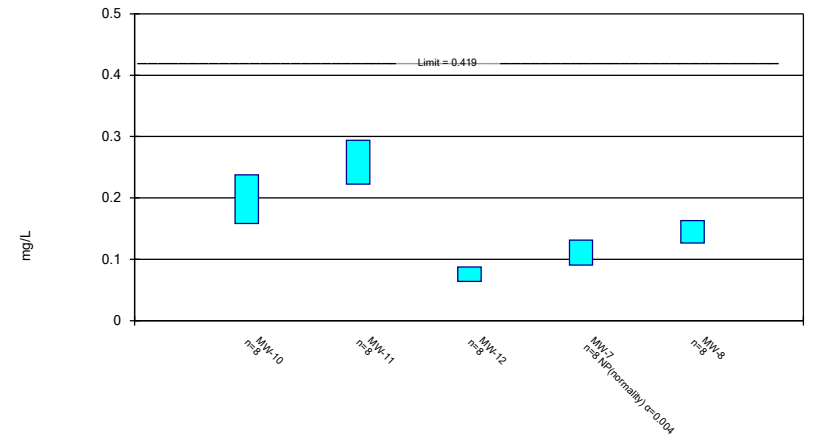
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

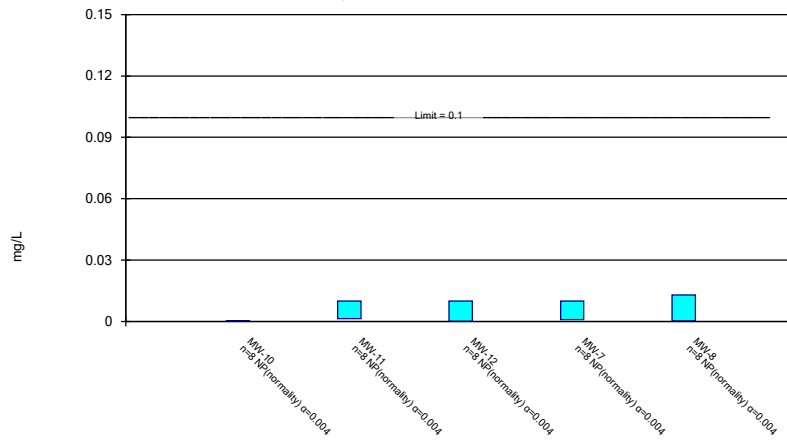
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

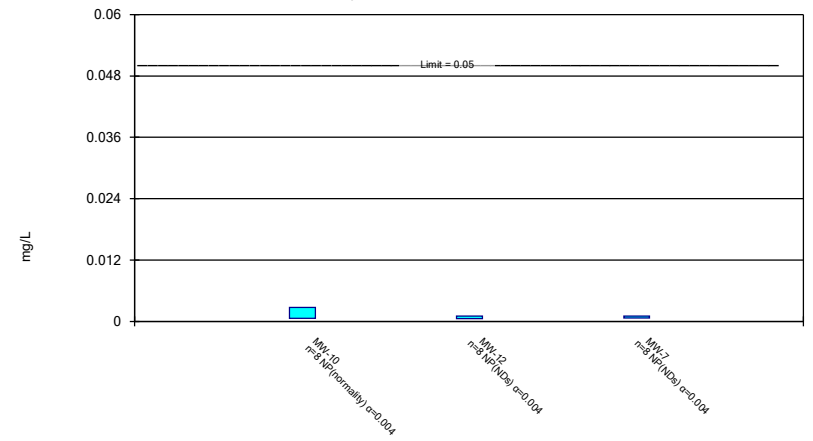
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

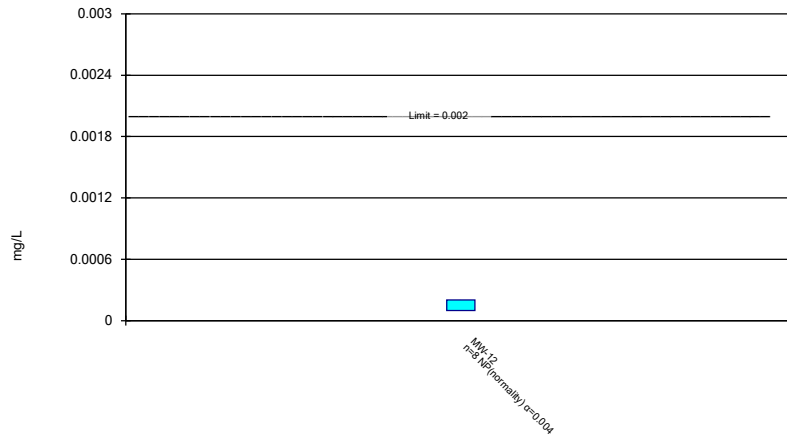
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 5/23/2023 3:31 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run: 5/23/2023 3:33 PM View: AIV
 Plant: Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				0.00145 (J)	
10/9/2019	<0.005		0.0507		0.00142 (J)
10/10/2019		<0.005			
4/6/2020		<0.005	0.0597		
4/8/2020	0.0013 (J)			0.00136 (J)	0.00102 (J)
7/13/2020		<0.005	0.0613		
7/14/2020	0.00164 (J)			0.00147 (J)	
7/15/2020					0.00212 (J)
2/23/2021	0.0016			0.00141	0.00117
2/24/2021		0.000834	0.0516		
7/20/2021	0.00102		0.0668	0.00164	0.00111
7/21/2021		0.0009			
1/31/2022				0.00156	
2/1/2022	0.00073	0.00085	0.0679		0.00131
7/5/2022		0.000881	0.0679		
7/6/2022	0.000348			0.00164	0.00136
2/21/2023		0.000859		0.00153	0.00119
2/22/2023	0.000692		0.0651		
Mean	0.001229	0.002415	0.06138	0.001508	0.001338
Std. Dev.	0.000685	0.00214	0.006977	0.0001031	0.0003428
Upper Lim.	0.001955	0.005	0.06847	0.001617	0.001656
Lower Lim.	0.0005027	0.000834	0.05414	0.001398	0.00103

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				0.0145	
10/9/2019	0.0204		0.0126		0.0137
10/10/2019		0.0154			
4/6/2020		0.0147	0.0128		
4/8/2020	0.0201			0.0127	0.0137
7/13/2020		0.0149	0.0124		
7/14/2020	0.0245			0.0148	
7/15/2020					0.0143
2/23/2021	0.0201			0.014	0.014
2/24/2021		0.015	0.0123		
7/20/2021	0.0208		0.012	0.0142	0.0141
7/21/2021		0.0159			
1/31/2022				0.0126	
2/1/2022	0.0198	0.0132	0.0102		0.0135
7/5/2022		0.0148	0.011		
7/6/2022	0.0209			0.0142	0.0146
2/21/2023		0.0167		0.0141	0.0148
2/22/2023	0.0222		0.0131		
Mean	0.0211	0.01508	0.01205	0.01389	0.01409
Std. Dev.	0.001562	0.001014	0.0009769	0.0008043	0.0004581
Upper Lim.	0.0245	0.01615	0.01309	0.0147	0.01457
Lower Lim.	0.0198	0.014	0.01101	0.01306	0.0136

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10
10/9/2019	0.00072 (J)
4/8/2020	0.00114 (J)
7/14/2020	0.00135 (J)
2/23/2021	0.00128
7/20/2021	0.00095 (J)
2/1/2022	<0.001015
7/6/2022	<0.001015
2/22/2023	0.000498 (J)
Mean	0.000996
Std. Dev.	0.0002813
Upper Lim.	0.001243
Lower Lim.	0.0006032

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10
10/9/2019	<0.000203
4/8/2020	<0.000203
7/14/2020	<0.000203
2/23/2021	0.000148 (J)
7/20/2021	8E-05 (J)
2/1/2022	0.0001 (J)
7/6/2022	<0.000203
2/22/2023	<0.000203
Mean	0.0001679
Std. Dev.	5.195E-05
Upper Lim.	0.000203
Lower Lim.	8E-05

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				<0.001015	
10/9/2019	<0.001015		<0.001015		<0.001015
10/10/2019		<0.001015			
4/6/2020		<0.001015	<0.001015		
4/8/2020	<0.001015			<0.001015	<0.001015
7/13/2020		<0.001015	<0.001015		
7/14/2020	<0.001015			<0.001015	
7/15/2020					<0.001015
2/23/2021	<0.001015			<0.001015	<0.001015
2/24/2021		<0.001015	<0.001015		
7/20/2021	0.00021 (J)		0.00028 (J)	<0.001015	<0.001015
7/21/2021		<0.001015			
1/31/2022				0.00032 (J)	
2/1/2022	0.00029 (J)	0.00033 (J)	0.00033 (J)		0.00025 (J)
7/5/2022		0.000269 (J)	<0.001015		
7/6/2022	<0.001015			<0.001015	<0.001015
2/21/2023		<0.001015		<0.001015	<0.001015
2/22/2023	0.000277 (J)		<0.001015		
Mean	0.0007315	0.0008361	0.0008375	0.0009281	0.0009194
Std. Dev.	0.0003919	0.0003316	0.0003289	0.0002457	0.0002705
Upper Lim.	0.001015	0.001015	0.001015	0.001015	0.001015
Lower Lim.	0.00021	0.000269	0.00028	0.00032	0.00025

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				0.00408 (J)	
10/9/2019	0.00969		0.0512		0.00864
10/10/2019		<0.005			
4/6/2020		<0.005	0.0537		
4/8/2020	0.0176			0.00394 (J)	0.00762
7/13/2020		<0.005	0.0515		
7/14/2020	0.0232			0.00653	
7/15/2020					0.00821
2/23/2021	0.0167			0.00294	0.00796
2/24/2021		0.00026	0.0442		
7/20/2021	0.0131		0.046	0.00561	0.00714
7/21/2021		0.00025			
1/31/2022				0.00546	
2/1/2022	0.00978	0.00046	0.0474		0.0075
7/5/2022		0.000443	0.0512		
7/6/2022	0.00285			0.0059	0.00701
2/21/2023		0.000889		0.0043	0.00682
2/22/2023	0.00105		0.0535		
Mean	0.01175	0.002163	0.04984	0.004845	0.007613
Std. Dev.	0.007497	0.002358	0.003531	0.00121	0.000628
Upper Lim.	0.01969	0.005	0.05358	0.006127	0.008278
Lower Lim.	0.003799	0.00025	0.0461	0.003563	0.006947

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/23/2023 3:33 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				0.345 (U)	
10/9/2019	0.742 (U)		1.18		0.416 (U)
10/10/2019		0.902			
4/6/2020		0.678	1.22		
4/8/2020	0.205 (U)			0.237 (U)	1.38 (U)
7/13/2020		0.665	0.787		
7/14/2020	0.314 (U)			0.434	
7/15/2020					0.398 (U)
2/23/2021	0.329 (U)			0.696 (U)	0.685 (U)
2/24/2021		0.869 (U)	1.24		
7/20/2021	0.344 (U)		1.15 (U)	0.356 (U)	0.42 (U)
7/21/2021		0.951 (U)			
1/31/2022				0.473 (U)	
2/1/2022	0.012 (U)	0.883 (U)	1.13 (U)		0.643 (U)
7/5/2022		0.697 (U)	1.72		
7/6/2022	0.501 (U)			0.716 (U)	0.415 (U)
2/21/2023		0.699 (U)		0.789 (U)	2.19
2/22/2023	0.804 (U)		1.05		
Mean	0.4064	0.793	1.185	0.5058	0.8184
Std. Dev.	0.2657	0.1186	0.2595	0.2026	0.6442
Upper Lim.	0.688	0.951	1.46	0.7205	2.19
Lower Lim.	0.1247	0.665	0.9096	0.291	0.398

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				0.183	
10/9/2019	0.142		0.215		0.189
10/10/2019		0.0915 (J)			
4/6/2020		0.118	0.254		
4/8/2020	0.243			0.153	0.192
7/13/2020		0.108	0.161		
7/14/2020	0.224			0.193	
7/15/2020					0.196
2/23/2021	0.202			0.2	0.208
2/24/2021		0.107	0.172		
7/20/2021	0.268		0.219	0.286	0.262
7/21/2021		0.16			
1/31/2022				0.173	
2/1/2022	0.157	0.0848 (J)	0.174		0.177
7/5/2022		0.124 (J)	0.275		
7/6/2022	0.145			0.208	0.173
2/21/2023		0.129		0.216	0.212
2/22/2023	0.132		0.239		
Mean	0.1891	0.1153	0.2136	0.2015	0.2011
Std. Dev.	0.05206	0.02357	0.04165	0.03959	0.02803
Upper Lim.	0.2443	0.1403	0.2578	0.2435	0.2308
Lower Lim.	0.1339	0.09031	0.1695	0.1595	0.1714

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-8
10/9/2019	<0.000203		<0.005	<0.000203
10/10/2019		0.00145 (J)		
4/6/2020		<0.000203	<0.005	
4/8/2020	<0.000203			<0.000203
7/13/2020		<0.000203	<0.005	
7/14/2020	<0.000203			
7/15/2020				<0.000203
2/23/2021	<0.000203			<0.000203
2/24/2021		<0.000203	0.000178 (J)	
7/20/2021	8E-05 (J)		0.00023	9E-05 (J)
7/21/2021		<0.000203		
2/1/2022	<0.000203	<0.000203	0.0003	9E-05 (J)
7/5/2022		<0.000203	0.000185 (J)	
7/6/2022	<0.000203			0.000109 (J)
2/21/2023		<0.000203		8.8E-05 (J)
2/22/2023	0.000155 (J)		0.000214	
Mean	0.0001816	0.0003589	0.002013	0.0001486
Std. Dev.	4.437E-05	0.0004409	0.002473	5.849E-05
Upper Lim.	0.000203	0.00145	0.005	0.000203
Lower Lim.	8E-05	0.000203	0.000178	8.8E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				0.131	
10/9/2019	0.202		0.0838		0.163
10/10/2019		0.275			
4/6/2020		0.282	0.0786		
4/8/2020	0.23			0.117	0.149
7/13/2020		0.277	0.0784		
7/14/2020	0.255			0.103	
7/15/2020					0.152
2/23/2021	0.223			0.131	0.166
2/24/2021		0.3	0.0949		
7/20/2021	0.196		0.0769	0.096	0.151
7/21/2021		0.271			
1/31/2022				0.0907	
2/1/2022	0.157	0.223	0.0656		0.124
7/5/2022		0.233	0.0659		
7/6/2022	0.172			0.0926	0.132
2/21/2023		0.204		0.0932	0.12
2/22/2023	0.149		0.0615		
Mean	0.198	0.2581	0.0757	0.1068	0.1446
Std. Dev.	0.03718	0.03365	0.01103	0.01712	0.01732
Upper Lim.	0.2374	0.2938	0.08739	0.131	0.163
Lower Lim.	0.1586	0.2225	0.06401	0.0907	0.1263

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
10/8/2019				<0.01	
10/9/2019	<0.000203		<0.01		<0.01
10/10/2019		<0.01			
4/6/2020		<0.01	<0.01		
4/8/2020	<0.000203			<0.01	<0.01
7/13/2020		<0.01	<0.01		
7/14/2020	<0.000203			<0.01	
7/15/2020					<0.01
2/23/2021	<0.000203			0.00107	0.0129
2/24/2021		0.00148	8.8E-05 (J)		
7/20/2021	8E-05 (J)		0.00017 (J)	0.00086	0.00033
7/21/2021		0.0013			
1/31/2022				0.00093	
2/1/2022	<0.000203	0.00181	0.00019 (J)		0.00031
7/5/2022		0.00151	0.000402		
7/6/2022	<0.000203			0.000846	0.000351
2/21/2023		0.00138		0.00103	0.000338
2/22/2023	0.000111 (J)		0.000131 (J)		
Mean	0.0001761	0.004685	0.003873	0.004342	0.005529
Std. Dev.	5.045E-05	0.004404	0.005075	0.004686	0.005636
Upper Lim.	0.000203	0.01	0.01	0.01	0.0129
Lower Lim.	8E-05	0.0013	8.8E-05	0.000846	0.00031

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-12	MW-7
10/8/2019			<0.001015
10/9/2019	<0.001015	<0.001015	
4/6/2020		<0.001015	
4/8/2020	<0.001015		<0.001015
7/13/2020		<0.001015	
7/14/2020	0.00273 (J)		<0.001015
2/23/2021	0.00217		<0.001015
2/24/2021		<0.001015	
7/20/2021	0.00098 (J)	<0.001015	<0.001015
1/31/2022			<0.001015
2/1/2022	<0.001015	0.00051 (J)	
7/5/2022		<0.001015	
7/6/2022	<0.001015		0.000677 (J)
2/21/2023			<0.001015
2/22/2023	0.000611 (J)	<0.001015	
Mean	0.001319	0.0009519	0.0009728
Std. Dev.	0.0007271	0.0001785	0.0001195
Upper Lim.	0.00273	0.001015	0.001015
Lower Lim.	0.000611	0.00051	0.000677

Confidence Interval

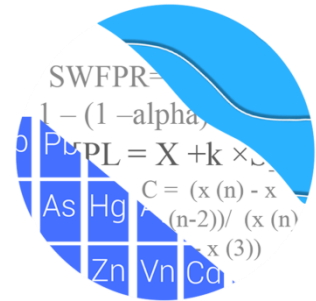
Constituent: Thallium (mg/L) Analysis Run 5/23/2023 3:33 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12
10/9/2019	<0.000203
4/6/2020	<0.000203
7/13/2020	<0.000203
2/24/2021	<0.000203
7/20/2021	<0.000203
2/1/2022	0.0001 (J)
7/5/2022	<0.000203
2/22/2023	0.000112 (J)
Mean	0.0001788
Std. Dev.	4.502E-05
Upper Lim.	0.000203
Lower Lim.	0.0001

GROUNDWATER STATS CONSULTING

October 13, 2023

Southern Company Services
Attn: Mr. Greg Budd
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Gorgas Bottom Ash Landfill
2nd Semi-Annual Background Update and Analysis – August 2023

Dear Mr. Budd,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical background update and analysis of groundwater data for the August 2023 2nd semi-annual sample event for Alabama Power Company's Plant Gorgas Bottom Ash Landfill. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (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-7, MW-8, MW-10, MW-11, and MW-12
- **Delineation well:** MW-12V

Note that data from delineation well MW-12V did not require statistics; therefore, data for this well were plotted only on time series and box plots.

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 Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program consists of the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

Appendix III (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Appendix IV (Assessment Monitoring) - 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 Appendix IV downgradient well/constituent pairs containing 100% non-detects follows this letter.

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 non-detect 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): 14
- # Background Samples (Interwell): 111
- # Constituents: 7
- # Downgradient wells: 5

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 calcium, fluoride, sulfate, and TDS
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, 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 non-detects, 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 (US EPA, 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% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the 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 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 Fall 2023

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. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate calcium, fluoride, sulfate, and TDS at all wells due to 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 boron, chloride, and pH.

Outlier Analysis

Prior to constructing prediction limits, proposed background data--through February 2023 for constituents evaluated with intrawell prediction limits and through August 2023 for constituents evaluated with interwell constituents--were reviewed through the use of time series graphs and Tukey's outlier test to identify any newly suspected outliers at all wells for calcium, fluoride, sulfate, and TDS, and at upgradient wells for boron, chloride, and pH.

Tukey's outlier tests identified outliers for calcium, chloride, fluoride, sulfate, and TDS. Some identified values were not flagged because the measurements appeared to be representative of spatial variation. Previously flagged values were confirmed by visual screening and Tukey's outlier tests. No changes to previously flagged outliers among Appendix III parameters were made and no additional values were flagged as outliers.

Outliers are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative (i.e., lower) from a regulatory perspective. 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 Tukey's test results along with a list of flagged outliers follows this report (Figure C).

Intrawell - Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through February 2021 to compliance data through February 2023 (Figure D). Previously truncated records, such as fluoride at well MW-12 which resulted from the previous update, were evaluated by comparing only the truncated portion of the data set to the more recent measurements. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- Fluoride: MW-12

Decrease

- Calcium: MW-11 and MW-12
- Sulfate: MW-2 (upgradient)
- TDS: MW-4 (upgradient), MW-8, MW-10, and MW-11

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

For well/constituent pairs with statistically significant decreases in medians, the background datasets were updated with new measurements at lower concentrations in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective and be representative of present-day groundwater quality. Regarding TDS in downgradient MW-10 historic concentrations were elevated compared to present day conditions. Therefore, this record has earlier concentrations truncated and background data were updated with more recent observations.

For fluoride at well MW-12, which exhibited a statistically significant increase in median concentrations, the concentrations follow the pattern of upgradient well MW-2. Although no significant difference in median concentrations at the 99% confidence level was identified for fluoride at upgradient well MW-2, in order to construct statistical limits that

are representative of present-day groundwater quality that are still of low magnitude relative to the Maximum Containment Level (MCL), these records had earlier data truncated to eliminate the influence of the trend and were updated with more recent measurements. All records will be re-evaluated during the next background update when a minimum of 4 compliance samples are available. A list of well/constituent pairs with a truncated portion of their record follows this letter (Date Ranges). All other records were updated with compliance data through February 2023.

Interwell – Trend Test Evaluation

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data through August 2023 from upgradient wells for parameters utilizing interwell prediction limits to quantify if concentrations are increasing, decreasing, or stable at the 99% confidence level (Figure E). When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may require deselection prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective.

Statistically significant trends were noted in upgradient wells for the following well/constituent pairs:

Increasing

- Boron: MW-1 and MW-2
- pH: MW-2

Decreasing

- pH: MW-1

The increasing trends for boron, however, are a result of historic trace values earlier in the record followed by non-detect values. Additionally, the magnitudes of the slopes are small relative to the average concentrations for pH. Therefore, no adjustments were required.

Evaluation of Appendix III Parameters – August 2023

Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for calcium, fluoride, sulfate, and TDS using screened background data through February 2023 at each well. (Figure F). Intrawell limits constructed from 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. This statistical method removes the element of variation across wells and eliminates the chance of mistaking spatial variation for a release from the facility. The August 2023 observation is compared to its respective background from the same well to determine whether initial exceedances are present.

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, chloride, and pH (Figure G). Interwell prediction limits pool upgradient well data through August 2023 to establish a background limit for an individual constituent. The August 2023 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample 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.

Complete prediction limits results and a summary of exceedances follow this letter. Exceedances were identified for the following well/constituent pairs:

Intrawell:

- Calcium: MW-7

Interwell:

- Boron: MW-10, MW-11, and MW-12
- Chloride: MW-7, MW-8, MW-11, and MW-12
- pH: MW-7, MW-8, MW-10, and MW-11

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure H). 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 variability in groundwater that is unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Boron: MW-1 (upgradient), MW-2 (upgradient), and MW-11
- Chloride: MW-11 and MW-12
- pH: MW-2 (upgradient), MW-8, MW-10, and MW-11

Decreasing

- Chloride: MW-8
- pH: MW-1 (upgradient)

Note that the increasing trends for boron at upgradient wells MW-1 and MW-2 are a result of observations lower than the current reporting limit early in the record followed by non-detects.

Evaluation of Appendix IV Parameters – August 2023

Prior to evaluating Appendix IV parameters, upgradient well data were screened through visual screening and Tukey's outlier test for potential outliers and extreme trending patterns that would lead to artificially elevated statistical limits. A discussion of those findings is provided below.

Tukey's outlier test on pooled upgradient well data for Appendix IV parameters through August 2023 identified values for barium, cobalt, combined radium 226 + 228, fluoride, and lithium. However, no additional outliers were flagged for barium, cobalt, combined radium, or lithium as all measurements appeared to be representative of spatial variation or were similar to remaining concentrations among upgradient well data. Previously flagged values were confirmed by visual screening and Tukey's outlier test, except for a previously flagged measurement of 0.00885 mg/L for cadmium in upgradient well MW-3. This measurement was unflagged due to repeated concentrations of similar magnitude as the value was no longer considered spurious.

Additionally, downgradient well data through August 2023 were screened through visual screening using time series graphs. Since the downgradient well data are used to construct confidence intervals, a regulatory conservative approach is taken in that values that are marginally high relative to the rest of the data are retained unless there is particular justification for excluding them. No changes were to previously flagged data were made among downgradient wells for Appendix IV parameters. A summary of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Background limits were determined using tolerance limits constructed from pooled upgradient well data through August 2023 (Figure I). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in screened background as the statistical limit, were constructed. A summary of the upper tolerance limits follows this report.

Groundwater Protection Standards

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 J) in the confidence interval comparisons described below.

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during this 2023 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2025 2nd semi-annual statistical analysis.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through August 2023 for each of the Appendix IV parameters (Figure K). These intervals were either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the highest and lowest values as interval limits when $n=8$, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

As mentioned above, well/constituent pairs containing 100% non-detects for the most recent 8 samples did not require statistics; therefore, they were deselected prior to construction of confidence intervals. A list of deselected well/constituent pairs follows this

report. 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. The following confidence interval exceedance was noted:

- Arsenic: MW-12

Trend Test Evaluation – Appendix IV

When confidence interval 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 at the 95% confidence level (Figure L). Utilizing the 95% confidence level for trend tests readily identifies significant trends and is more sensitive than the 99% confidence level without drastically increasing the false negative rate. Upgradient wells are included in the trend analyses for all parameters found to exceed their confidence interval in downgradient wells. When similar patterns exist upgradient of the site, it is an indication of variability in groundwater which may be unrelated to practices at the site. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Arsenic: MW-12

Decreasing

- Arsenic: MW-1 and MW-3 (both upgradient)

Note that while the trend test identified a statistically significant decreasing trend for arsenic in upgradient well MW-1, the slope is displayed on the graph and summary table as zero which represents the median slopes of all the possible pairwise slopes.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Gorgas Bottom Ash Landfill. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Abdul Diane
Groundwater Analyst

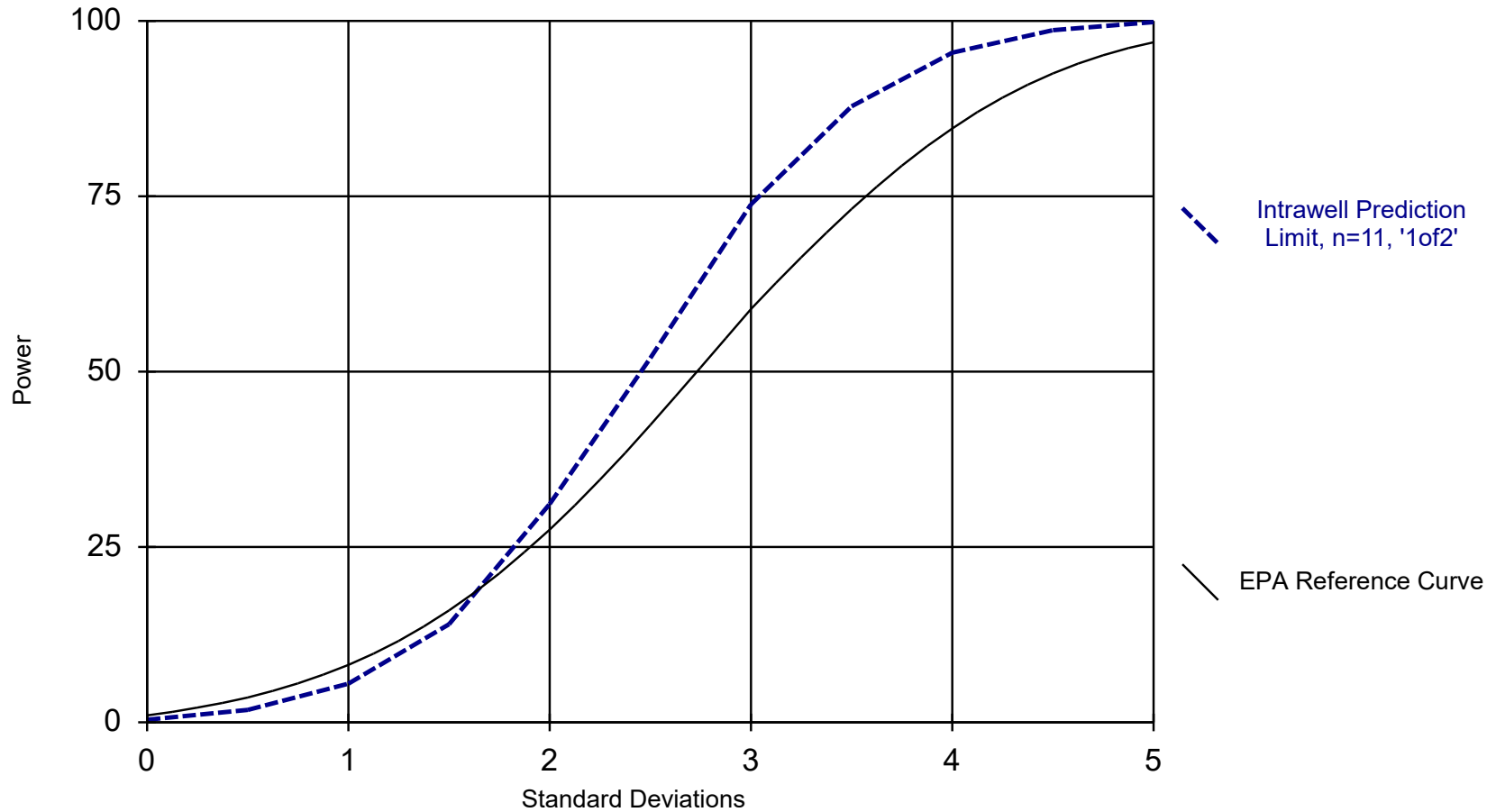


Andrew T. Collins
Project Manager

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Intrawell Power Curve

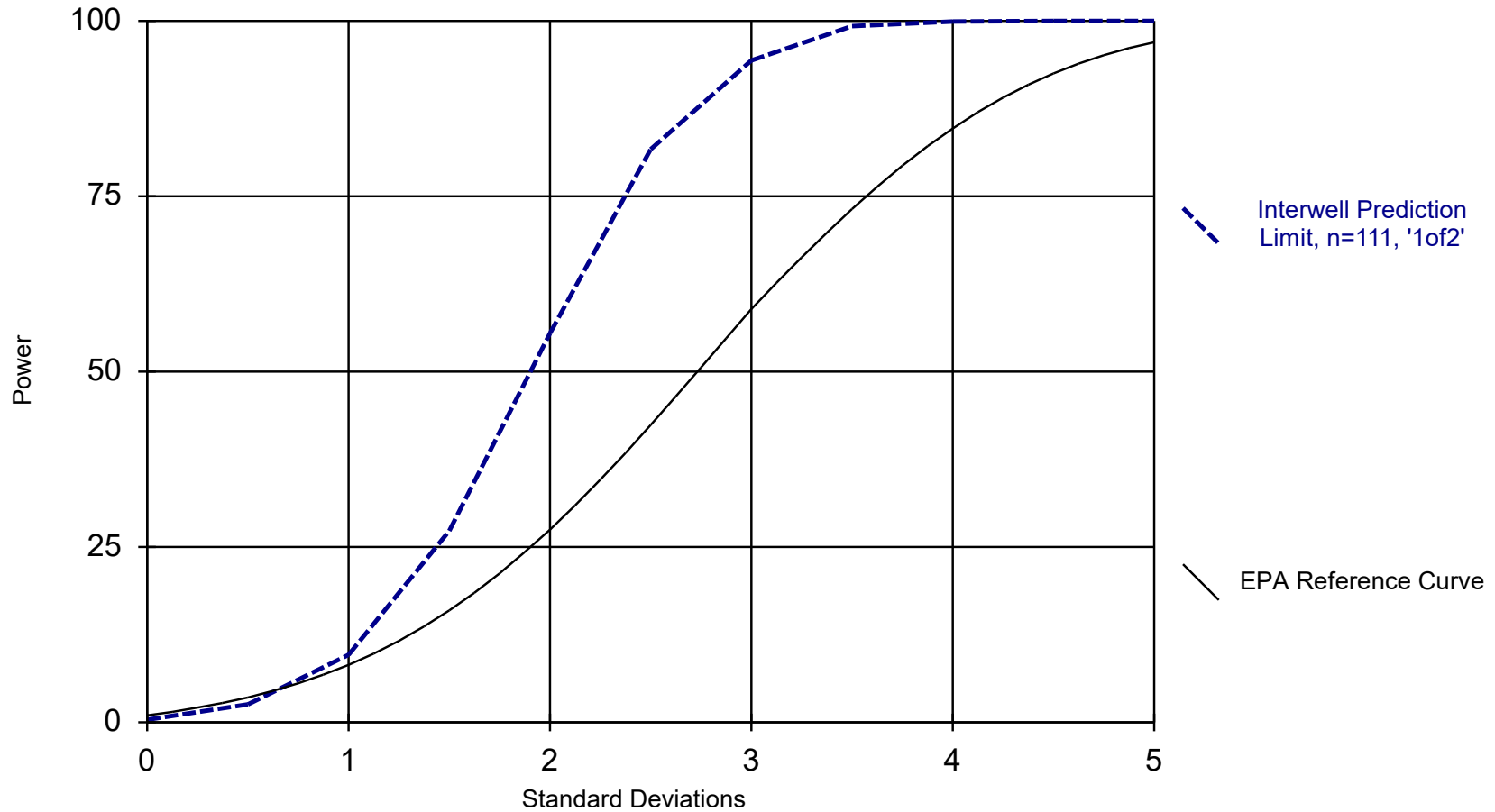


Kappa = 2.4, based on 5 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/12/2023 5:40 PM

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Interwell Power Curve



Kappa = 1.802, based on 5 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/12/2023 5:39 PM

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Date Ranges

Date: 10/5/2023 12:19 PM

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Fluoride (mg/L)

MW-12 background:5/24/2018-2/22/2023

MW-2 background:3/22/2017-2/20/2023

Total Dissolved Solids (mg/L)

MW-10 background:3/21/2017-2/22/2023

100% Non-Detects: Appendix IV Downgradient

Analysis Run 10/2/2023 5:31 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Antimony (mg/L)
MW-11, MW-7, MW-8

Beryllium (mg/L)
MW-11, MW-12, MW-7, MW-8

Cadmium (mg/L)
MW-11, MW-7, MW-8

Lead (mg/L)
MW-7

Mercury (mg/L)
MW-10, MW-11, MW-12, MW-7, MW-8

Selenium (mg/L)
MW-11, MW-8

Thallium (mg/L)
MW-10, MW-11, MW-7, MW-8

Upgradient Wells Trend Tests - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 4:57 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP

Upgradient Wells Trend Tests - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 4:57 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0.004142	102	131	No	28	28.57	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003115	-55	-124	No	27	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-0.02423	-54	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.1196	-77	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.04365	68	131	No	28	7.143	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.04985	-94	-131	No	28	3.571	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	0.02424	22	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-4 (bg)	0.01768	115	139	No	29	0	n/a	n/a	0.01	NP

Appendix III Intrawell Prediction Limits - Significant Result

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 10/5/2023, 12:34 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-7	337.6	n/a	8/15/2023	339	Yes	20	83447	14827	0	None	x^2	0.001504	Param Intra 1 of 2

Appendix III Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 10/5/2023, 12:35 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	MW-1	243	n/a	8/22/2023	183	No	27	n/a	n/a	0	n/a	n/a	0.002502	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-10	279	n/a	8/15/2023	188	No	20	n/a	n/a	0	n/a	n/a	0.004291	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-11	422.2	n/a	8/15/2023	367	No	20	363.3	28.63	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-12	398.6	n/a	8/16/2023	313	No	20	349.4	23.95	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-2	211.8	n/a	8/22/2023	168	No	27	173.2	19.56	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-3	414.9	n/a	8/22/2023	359	No	27	296.9	59.85	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-4	382.7	n/a	8/22/2023	287	No	27	297.7	43.11	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-7	337.6	n/a	8/15/2023	339	Yes	20	83447	14827	0	None	x^2	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-8	339.4	n/a	8/15/2023	328	No	20	302.4	18	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-1	0.1973	n/a	8/22/2023	0.159	No	28	0.1204	0.03916	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-10	0.3285	n/a	8/15/2023	0.0889J	No	21	0.1823	0.07148	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1572	n/a	8/15/2023	0.122J	No	21	0.1016	0.02722	4.762	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-12	0.3021	n/a	8/16/2023	0.134	No	11	0.2004	0.04237	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-2	0.2647	n/a	8/22/2023	0.184	No	20	0.1798	0.0413	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-3	0.5761	n/a	8/22/2023	0.283	No	28	0.3319	0.1244	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-4	0.4268	n/a	8/22/2023	0.358	No	28	0.1154	0.03399	0	None	x^2	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-7	0.2462	n/a	8/15/2023	0.154	No	21	-1.66	0.1266	0	None	ln(x)	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-8	0.2484	n/a	8/15/2023	0.174	No	21	0.2092	0.01917	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	1673	n/a	8/22/2023	1560	No	26	1471	101.6	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-10	1128	n/a	8/15/2023	631	No	20	775.1	171.7	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	2178	n/a	8/15/2023	1280	No	20	1539	310.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-12	2779	n/a	8/16/2023	2320	No	20	2332	217.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	1263	n/a	8/22/2023	912	No	27	968.1	149.7	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	3281	n/a	8/22/2023	3140	No	27	2464	414.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-4	3134	n/a	8/22/2023	2390	No	27	2441	351.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-7	1588	n/a	8/15/2023	1360	No	19	1325	126.2	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-8	1640	n/a	8/15/2023	1480	No	19	n/a	n/a	0	n/a	n/a	0.004832	NP Intra (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-1	2498	n/a	8/22/2023	2160	No	26	2195	152.7	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-10	1327	n/a	8/15/2023	1050	No	14	1128	88.95	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-11	3099	n/a	8/15/2023	2130	No	20	2549	267	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-12	4381	n/a	8/16/2023	3780	No	20	3621	369.4	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-2	2007	n/a	8/22/2023	1520	No	27	1606	203.5	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-3	4994	n/a	8/22/2023	4820	No	27	3729	641.6	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-4	4518	n/a	8/22/2023	3780	No	27	5.5e10	1.9e10	0	None	x^3	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-7	2586	n/a	8/15/2023	2270	No	20	2.6e13	9.2e12	0	None	x^4	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-8	2800	n/a	8/15/2023	2410	No	20	2535	128.9	0	None	No	0.001504	Param Intra 1 of 2

Appendix III Interwell Prediction Limits - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-10	0.1015	n/a	8/15/2023	0.146	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	8/15/2023	0.105	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	8/16/2023	0.165	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	8/15/2023	50.4	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	8/16/2023	11	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	8/15/2023	6.51	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	8/15/2023	4.92	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	8/15/2023	7.53	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	8/15/2023	7.62	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	8/15/2023	7.47	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	8/15/2023	7.58	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-10	0.1015	n/a	8/15/2023	0.146	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	8/15/2023	0.105	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	8/16/2023	0.165	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-7	0.1015	n/a	8/15/2023	0.0663J	No	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-8	0.1015	n/a	8/15/2023	0.0654J	No	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-10	4.6	n/a	8/15/2023	3.54	No	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	8/15/2023	50.4	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	8/16/2023	11	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	8/15/2023	6.51	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	8/15/2023	4.92	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	8/15/2023	7.53	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	8/15/2023	7.62	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-12	6.35	4.51	8/16/2023	5.81	No	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	8/15/2023	7.47	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	8/15/2023	7.58	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:17 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.001944	109	87	Yes	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	9.556	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.176	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-19.64	-114	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-10	0.04611	108	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05306	166	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.0485	177	92	Yes	22	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-10	-0.009517	-81	-87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.001944	109	87	Yes	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-12	0.002864	18	87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0.004142	102	131	No	28	28.57	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003115	-55	-124	No	27	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-1 (bg)	2.226	116	131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	0	4	131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	9.024	58	131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-4 (bg)	-6.626	-101	-131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-7	-2.964	-39	-87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-0.02423	-54	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	9.556	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.176	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.1196	-77	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.04365	68	131	No	28	7.143	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.04985	-94	-131	No	28	3.571	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-7	-4.43	-81	-87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-19.64	-114	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-10	0.04611	108	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05306	166	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	0.02424	22	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-4 (bg)	0.01768	115	139	No	29	0	n/a	n/a	0.01	NP
pH (SU)	MW-7	-0.006697	-17	-92	No	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.0485	177	92	Yes	22	0	n/a	n/a	0.01	NP

GORGAS BALF GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.0048	0.01
Barium	mg/L	0.0165	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00885	0.00885
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	0.529	0.529
Combined Radium-226/228	pCi/L	1.49	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00108	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.0209	0.05
Thallium	mg/L	0.000226	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 2023.

Appendix IV Confidence Intervals Summary Table - Significant Result

Plant Gorgas Data: Gorgas BALF CCR Printed 10/12/2023, 4:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u> <u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-12	0.07059	0.05733	0.01	Yes 8	0.006254	0	None	No	0.01	Param.

Appendix IV Confidence Intervals Summary Table - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/12/2023, 4:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MW-10	0.001015	0.001015	0.006	No	8	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	MW-12	0.001015	0.001015	0.006	No	8	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-10	0.001503	0.0005188	0.01	No	8	0.0004644	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-11	0.005	0.000825	0.01	No	8	0.001917	25	None	No	0.004	NP (normality)
Arsenic (mg/L)	MW-12	0.07059	0.05733	0.01	Yes	8	0.006254	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-7	0.001647	0.001415	0.01	No	8	0.0001096	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001724	0.001013	0.01	No	8	0.0003578	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-10	0.0245	0.0195	2	No	8	0.00165	0	None	No	0.004	NP (normality)
Barium (mg/L)	MW-11	0.01605	0.01363	2	No	8	0.001141	0	None	No	0.01	Param.
Barium (mg/L)	MW-12	0.01294	0.01064	2	No	8	0.001084	0	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.01457	0.01288	2	No	8	0.0007942	0	None	No	0.01	Param.
Barium (mg/L)	MW-8	0.01464	0.01334	2	No	8	0.0006151	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-10	0.001261	0.0005864	0.004	No	8	0.0002583	37.5	Kapla...	No	0.01	Param.
Cadmium (mg/L)	MW-10	0.000203	0.00008	0.00885	No	8	0.00005195	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-12	0.000203	0.000087	0.00885	No	8	0.00004101	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-10	0.001015	0.00021	0.1	No	8	0.000404	50	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-11	0.001015	0.000258	0.1	No	8	0.000378	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-12	0.001015	0.00028	0.1	No	8	0.0003571	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-7	0.001015	0.00026	0.1	No	8	0.000336	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-8	0.001015	0.000211	0.1	No	8	0.0003633	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-10	0.01951	0.002226	0.529	No	8	0.008154	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-11	0.005	0.00025	0.529	No	8	0.002083	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	MW-12	0.05389	0.04616	0.529	No	8	0.003651	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.006124	0.003524	0.529	No	8	0.001227	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.008031	0.006524	0.529	No	8	0.0007109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-10	0.7764	0.09861	5	No	8	0.3197	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-11	1.025	0.6428	5	No	8	0.1884	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-12	1.445	0.8703	5	No	8	0.271	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-7	0.7246	0.3137	5	No	8	0.1938	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-8	1.379	0.2685	5	No	8	0.6593	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	MW-10	0.2476	0.1173	4	No	8	0.06146	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-11	0.1419	0.09626	4	No	8	0.02155	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-12	0.2567	0.1503	4	No	8	0.05023	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-7	0.2432	0.1526	4	No	8	0.04273	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-8	0.2296	0.1694	4	No	8	0.02943	0	None	sqrt(x)	0.01	Param.
Lead (mg/L)	MW-10	0.000203	0.00008	0.015	No	8	0.00004423	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	MW-11	0.000203	0.000203	0.015	No	8	0	100	None	No	0.004	NP (NDs)
Lead (mg/L)	MW-12	0.005	0.000178	0.015	No	8	0.002191	25	None	No	0.004	NP (normality)
Lead (mg/L)	MW-8	0.000203	0.000088	0.015	No	8	0.00005577	37.5	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-10	0.2346	0.1491	0.419	No	8	0.04033	0	None	No	0.01	Param.
Lithium (mg/L)	MW-11	0.2897	0.2071	0.419	No	8	0.03894	0	None	No	0.01	Param.
Lithium (mg/L)	MW-12	0.0851	0.06065	0.419	No	8	0.01154	0	None	No	0.01	Param.
Lithium (mg/L)	MW-7	0.131	0.0907	0.419	No	8	0.0142	0	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-8	0.1579	0.1198	0.419	No	8	0.01797	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-10	0.01015	0.00008	0.1	No	8	0.004654	75	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	MW-11	0.01015	0.0013	0.1	No	8	0.004481	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-12	0.01015	0.000088	0.1	No	8	0.005152	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-7	0.01015	0.000846	0.1	No	8	0.004764	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-8	0.0129	0.00031	0.1	No	8	0.005687	37.5	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-10	0.00273	0.000611	0.05	No	8	0.0007271	50	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-12	0.001015	0.00051	0.05	No	8	0.0001785	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	MW-7	0.001015	0.000677	0.05	No	8	0.0001195	87.5	None	No	0.004	NP (NDs)
Thallium (mg/L)	MW-12	0.000203	0.000097	0.002	No	8	0.00005193	62.5	None	No	0.004	NP (NDs)

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:37 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-1 (bg)	0	-143	-131	Yes	28	78.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-12	0.004298	143	87	Yes	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-3 (bg)	-0.0002048	-173	-131	Yes	28	53.57	n/a	n/a	0.01	NP

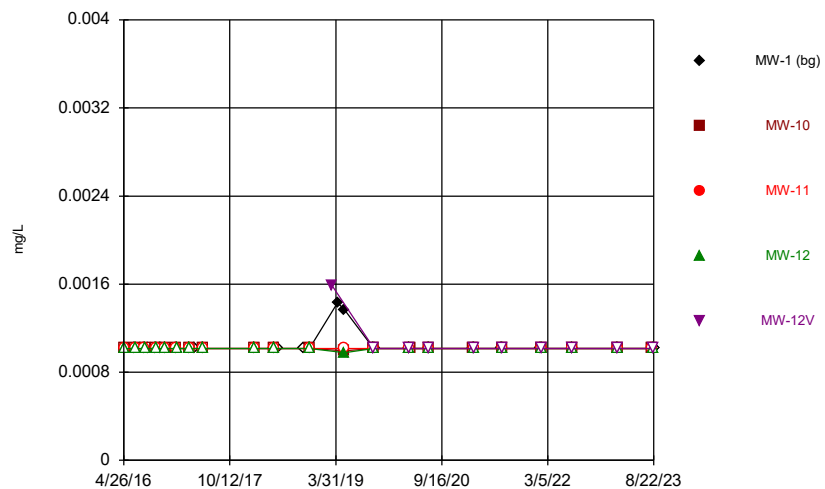
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:37 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MW-1 (bg)	0	-143	-131	Yes	28	78.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-12	0.004298	143	87	Yes	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-2 (bg)	0	-120	-131	No	28	75	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-3 (bg)	-0.0002048	-173	-131	Yes	28	53.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-4 (bg)	0	-107	-131	No	28	82.14	n/a	n/a	0.01	NP

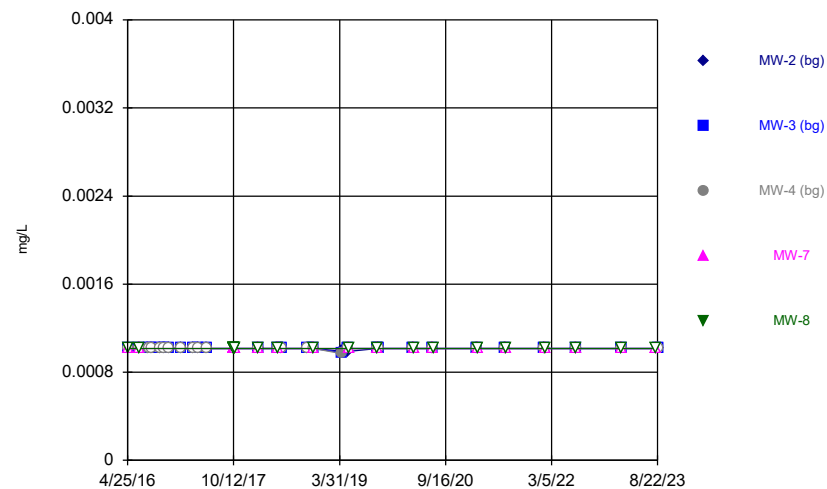
FIGURE A.

Time Series



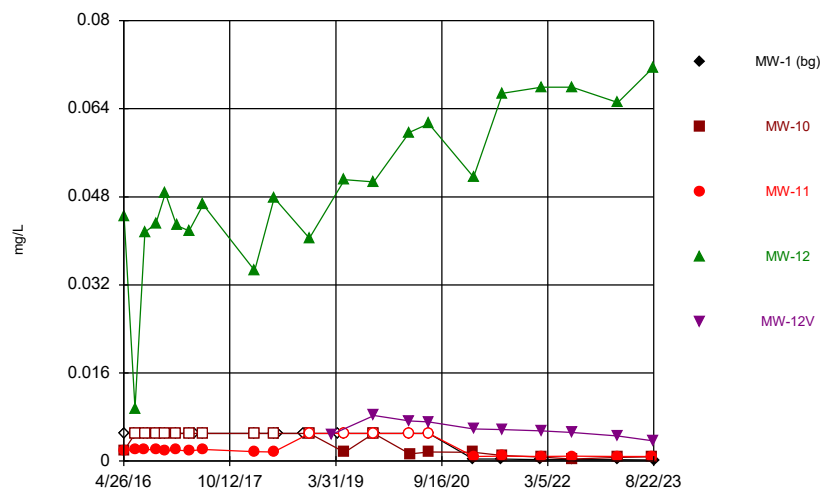
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



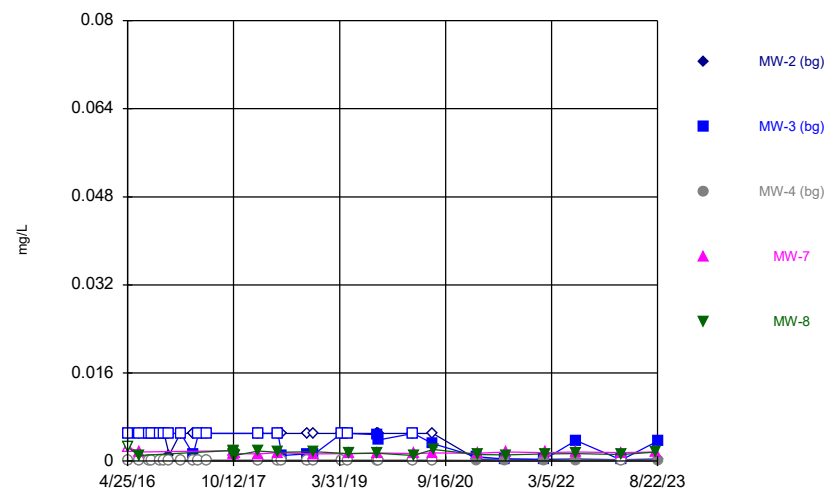
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



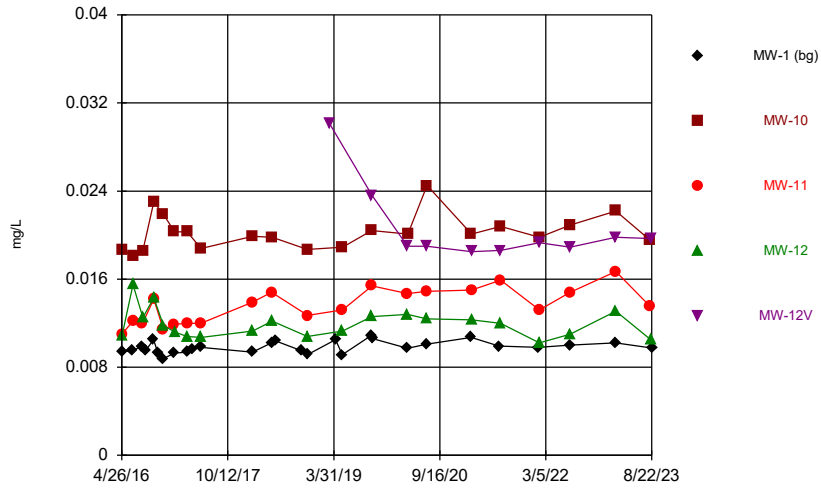
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



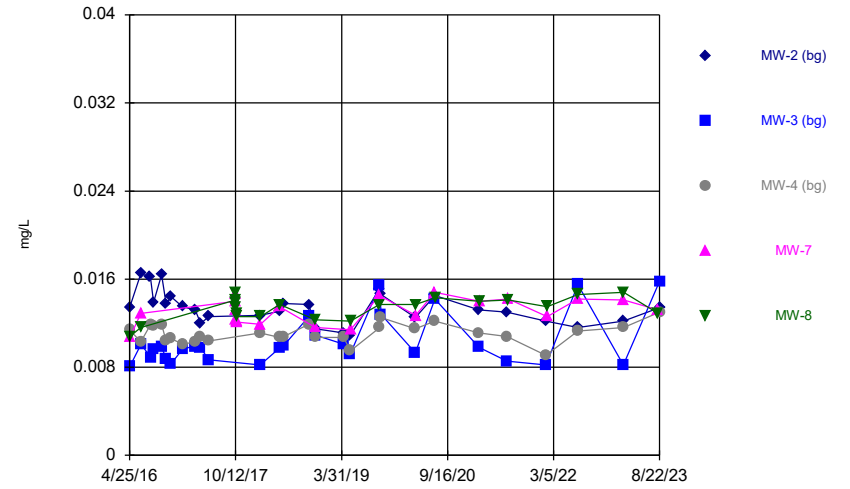
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



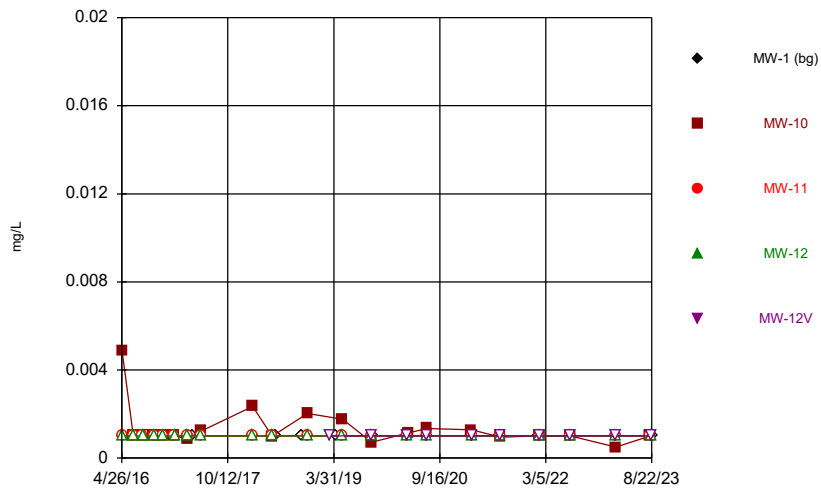
Constituent: Barium Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



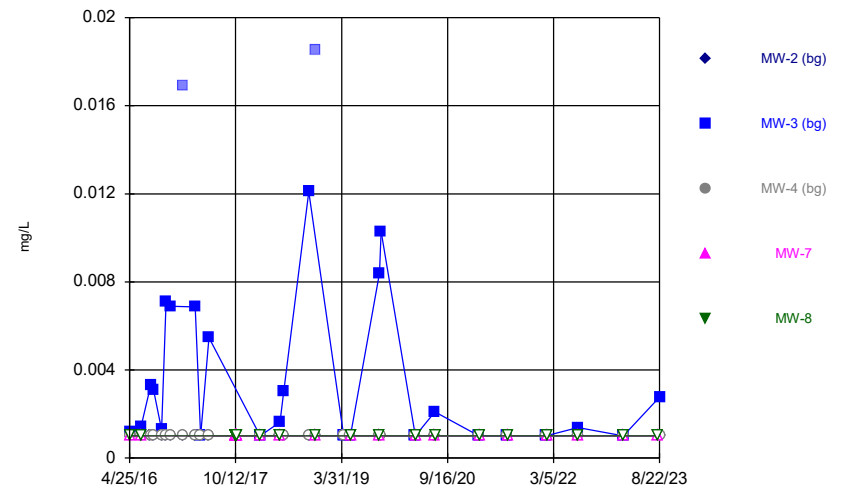
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Time Series



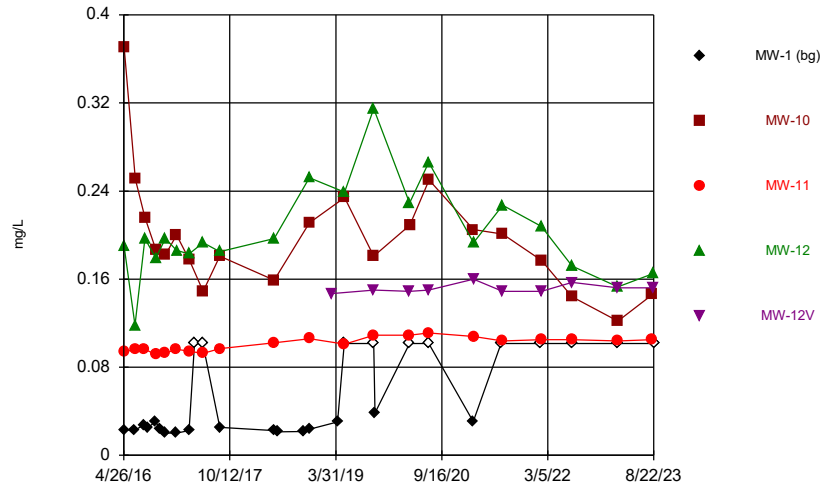
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Time Series



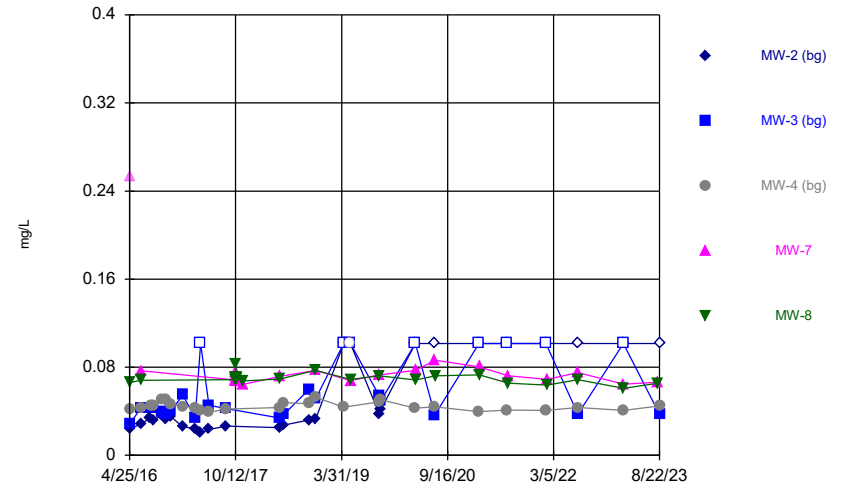
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Time Series



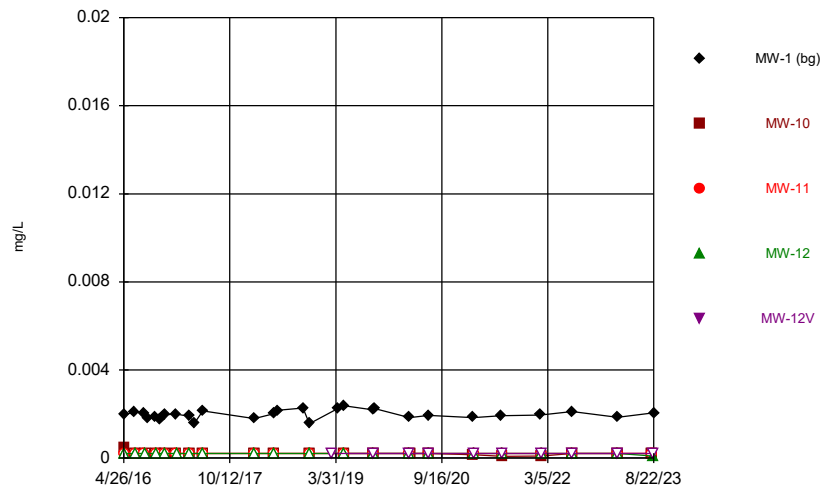
Constituent: Boron Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



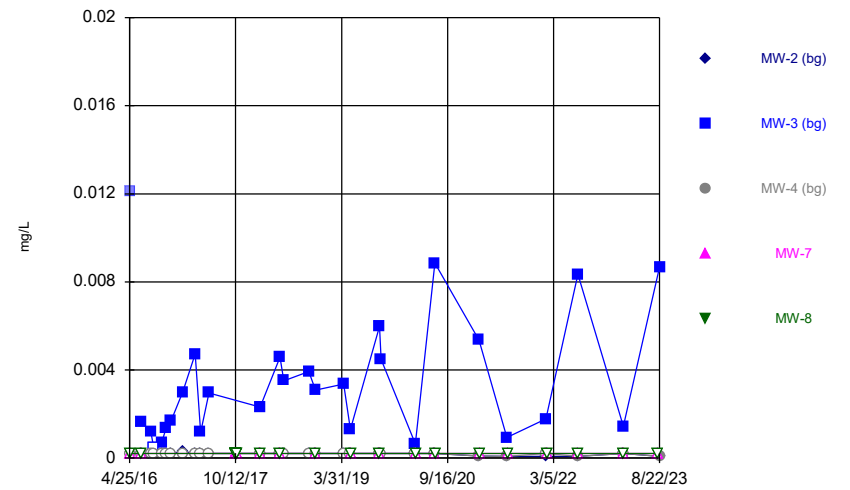
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



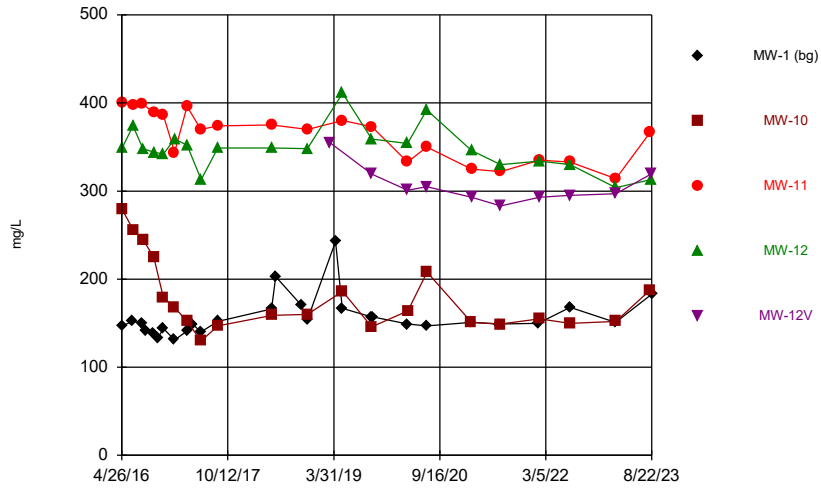
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



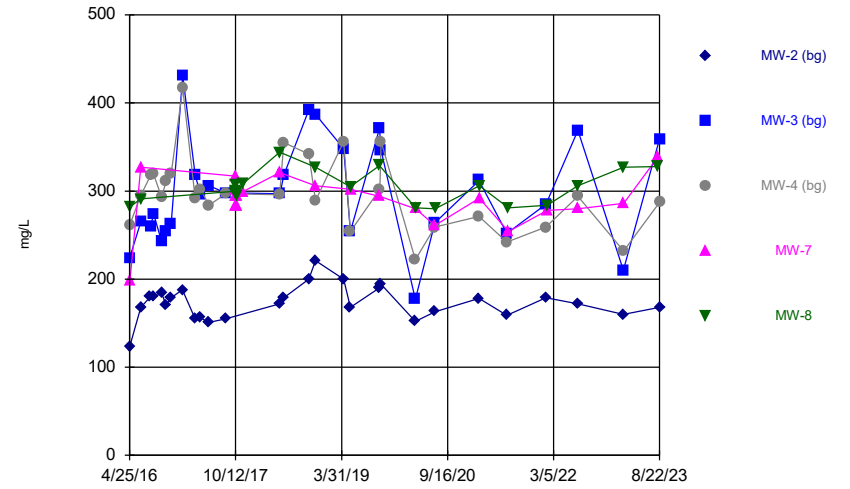
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



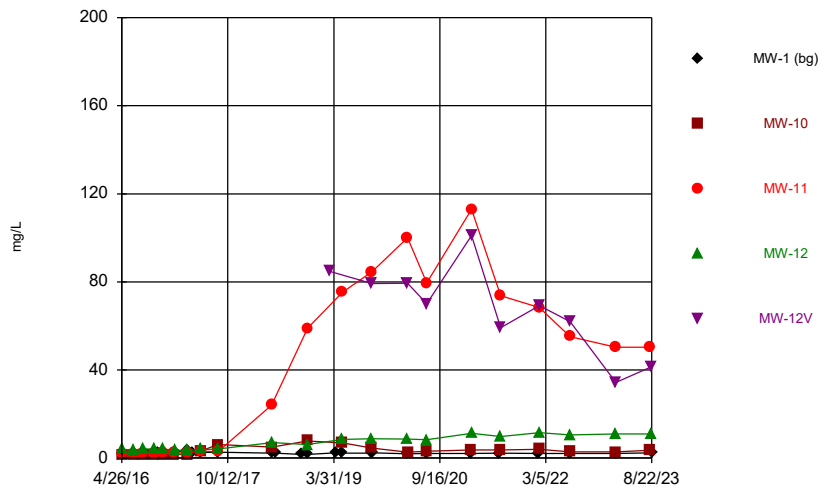
Constituent: Calcium Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



Constituent: Calcium Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

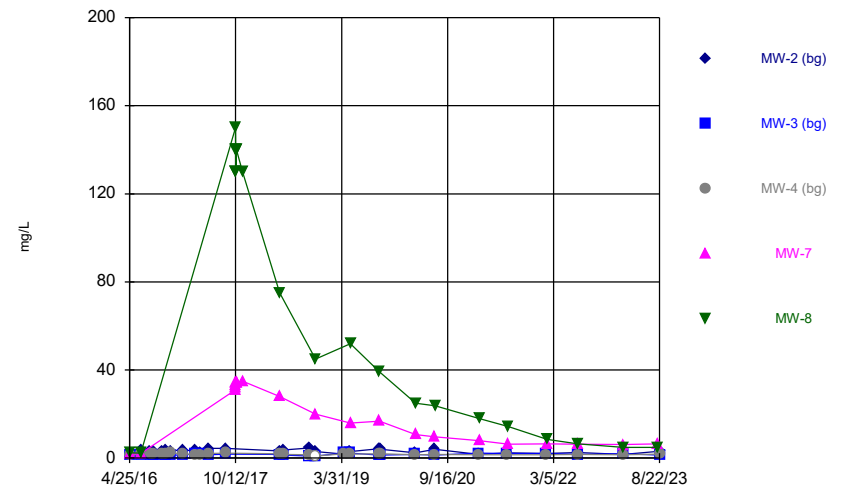
Time Series



Constituent: Chloride Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

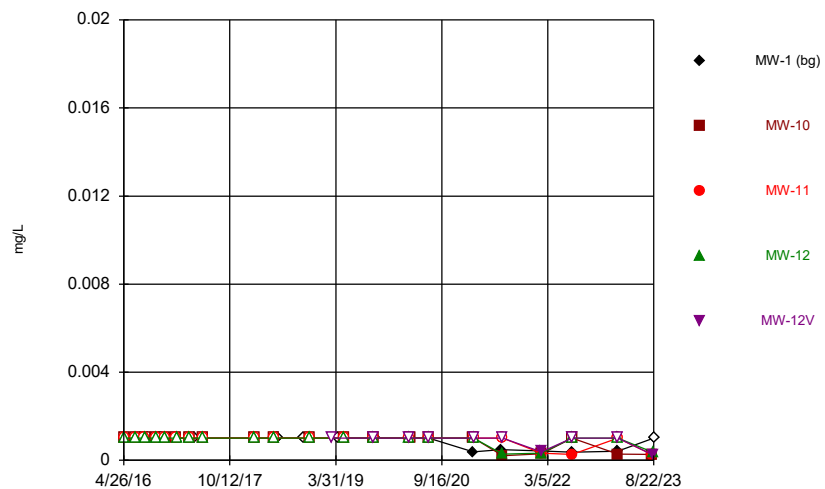
Hollow symbols indicate censored values.

Time Series



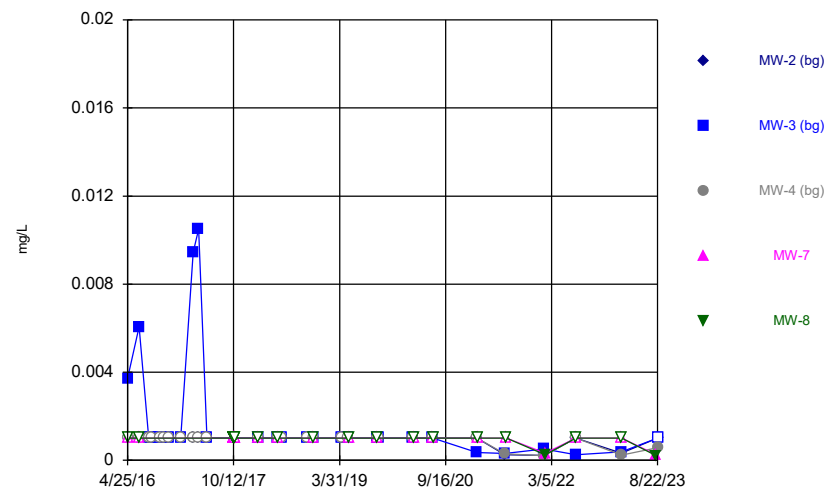
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



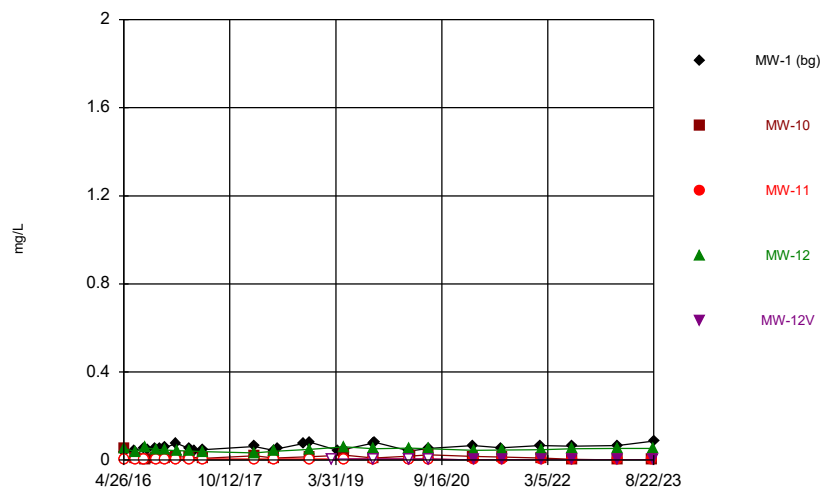
Constituent: Chromium Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



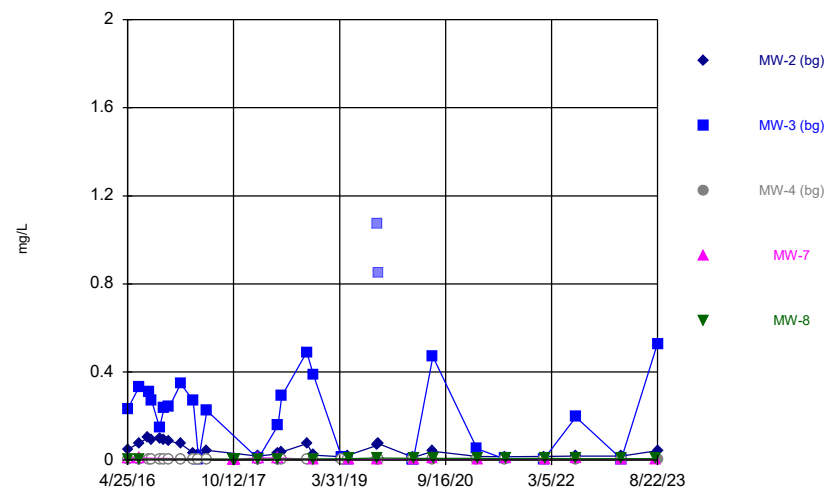
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



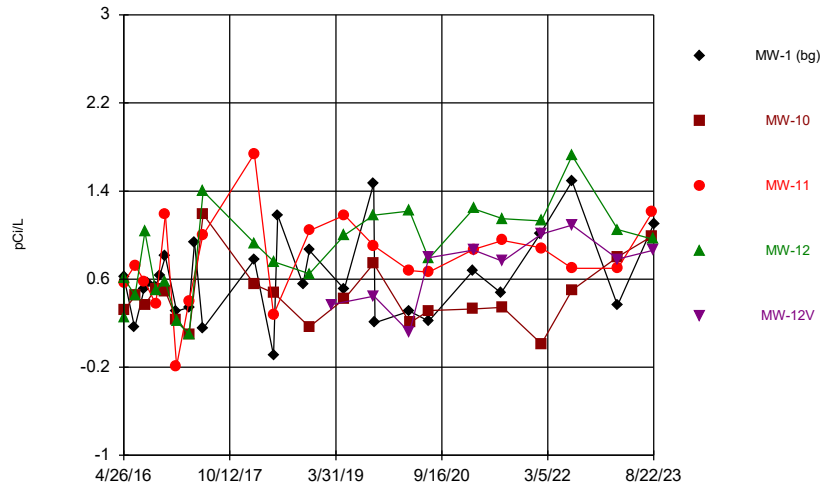
Constituent: Cobalt Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



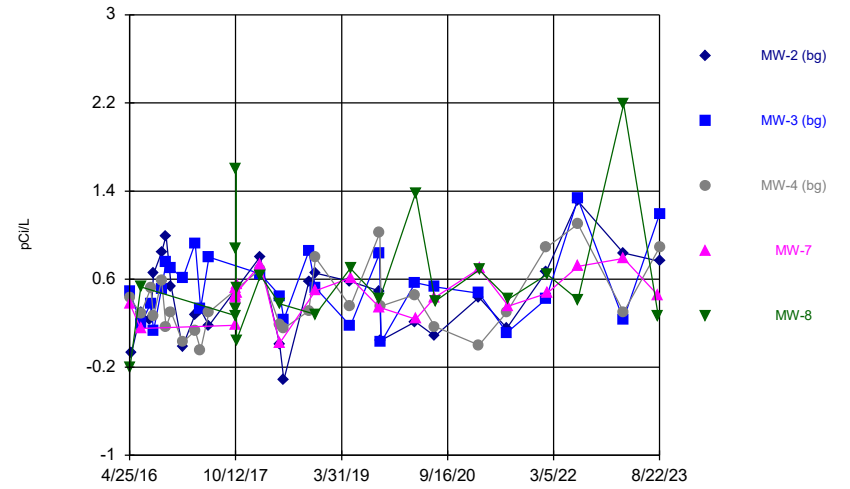
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Plant Gorgas Data: Gorgas BALF CCR

Time Series



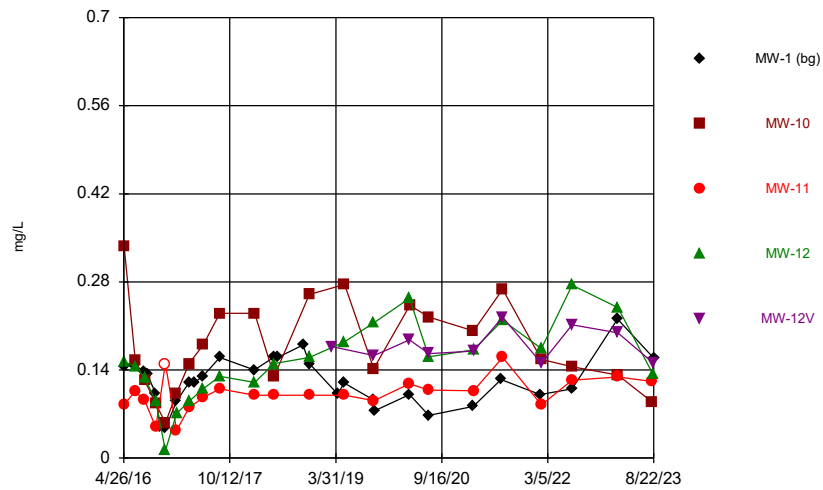
Constituent: Combined Radium 226 + 228 Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



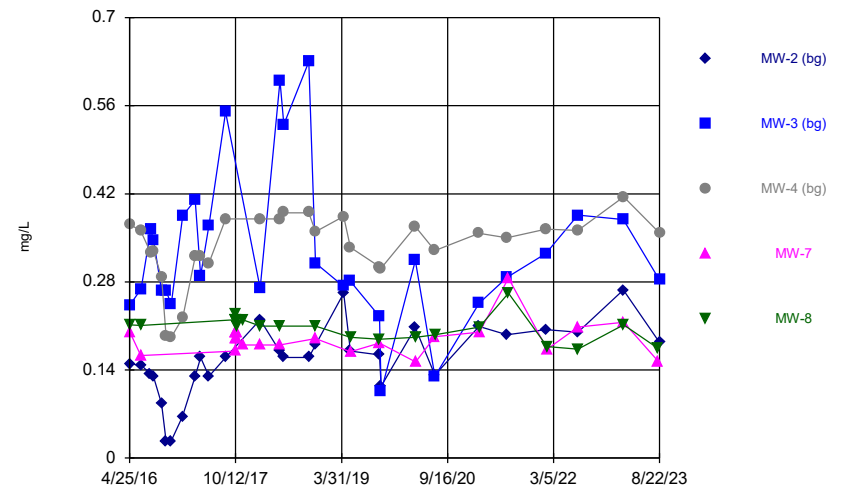
Constituent: Combined Radium 226 + 228 Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



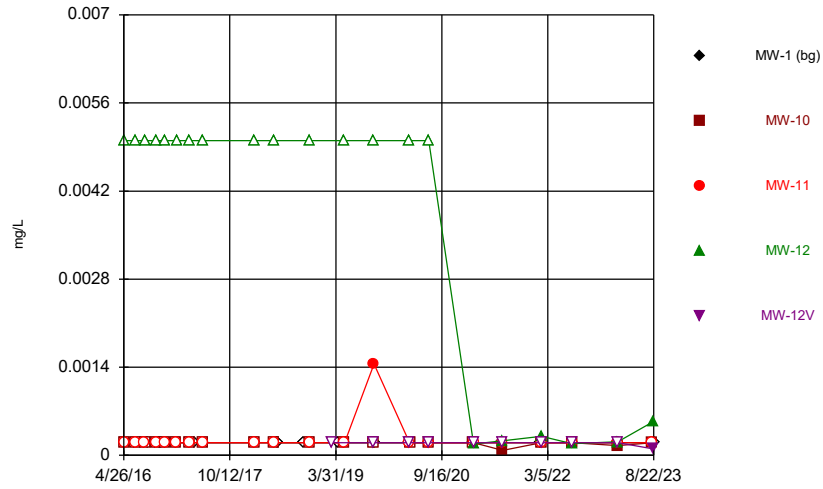
Constituent: Fluoride Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



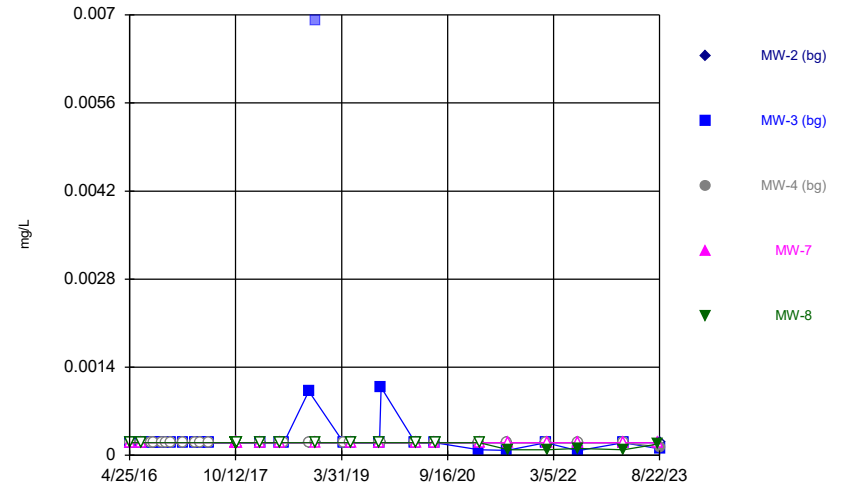
Constituent: Fluoride Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



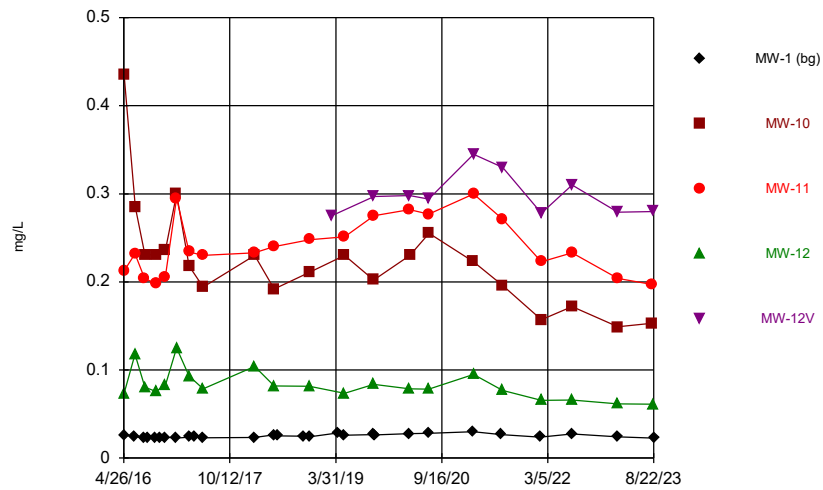
Constituent: Lead Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



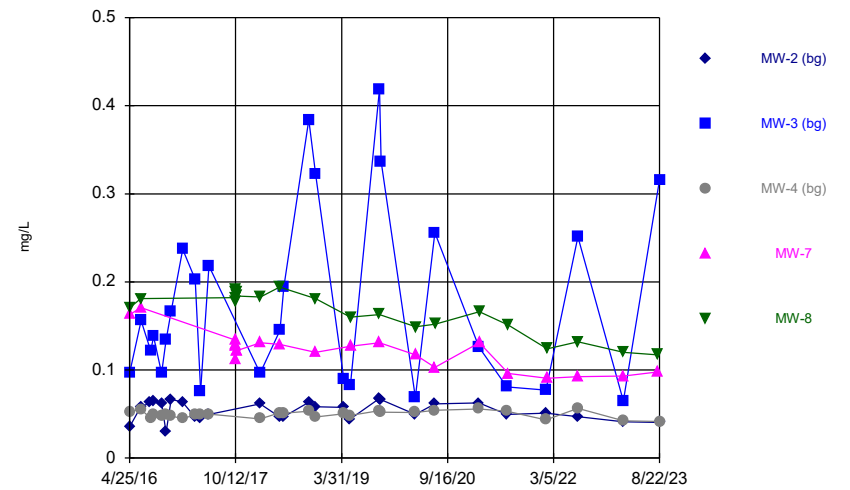
Constituent: Lead Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



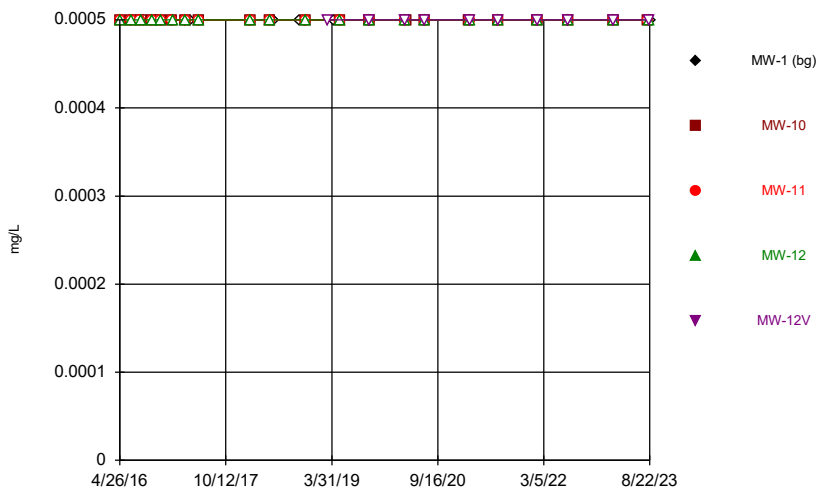
Constituent: Lithium Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



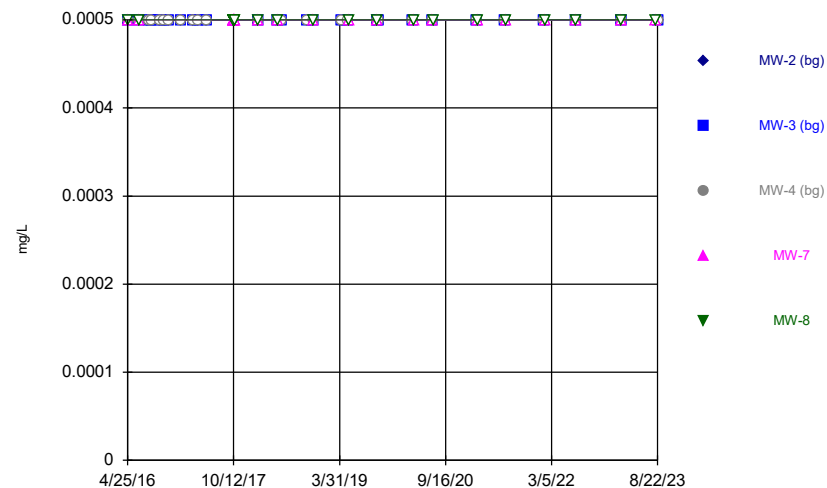
Constituent: Lithium Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



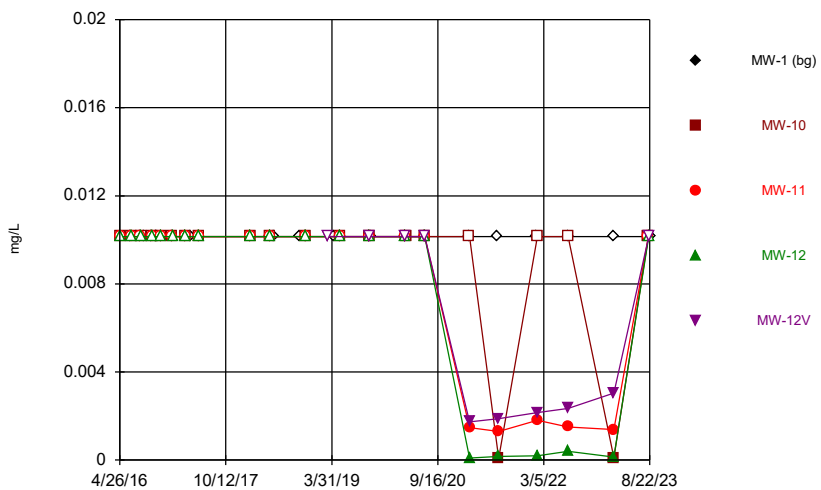
Constituent: Mercury Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



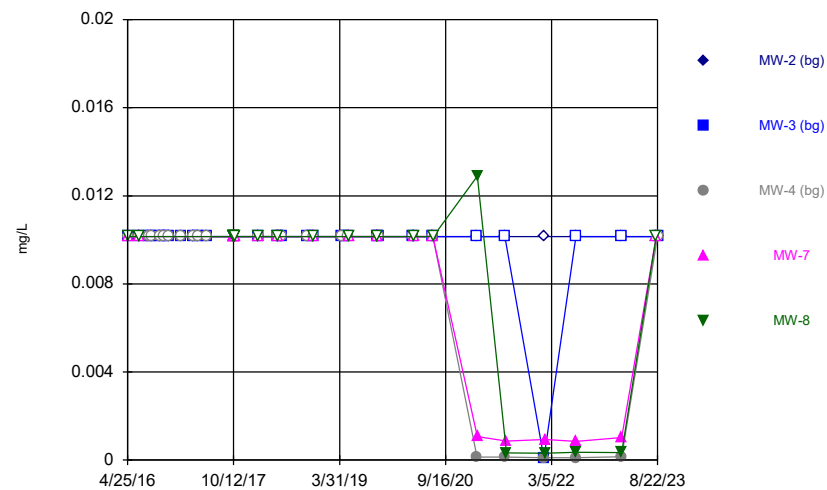
Constituent: Mercury Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



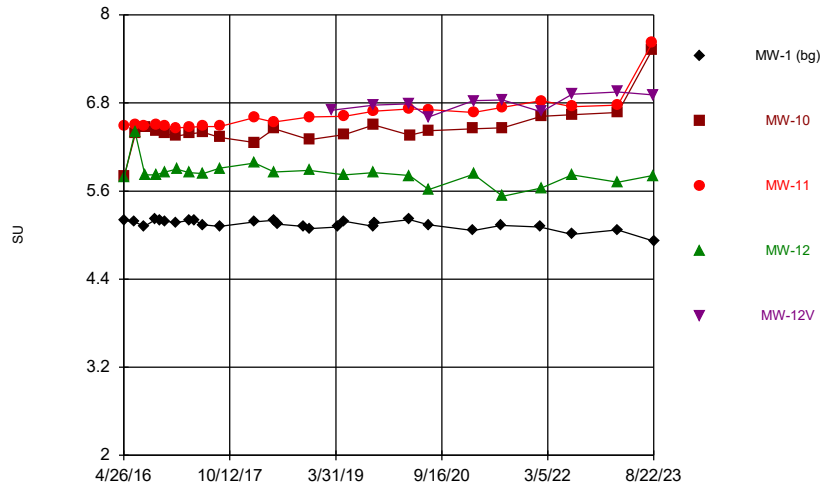
Constituent: Molybdenum Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



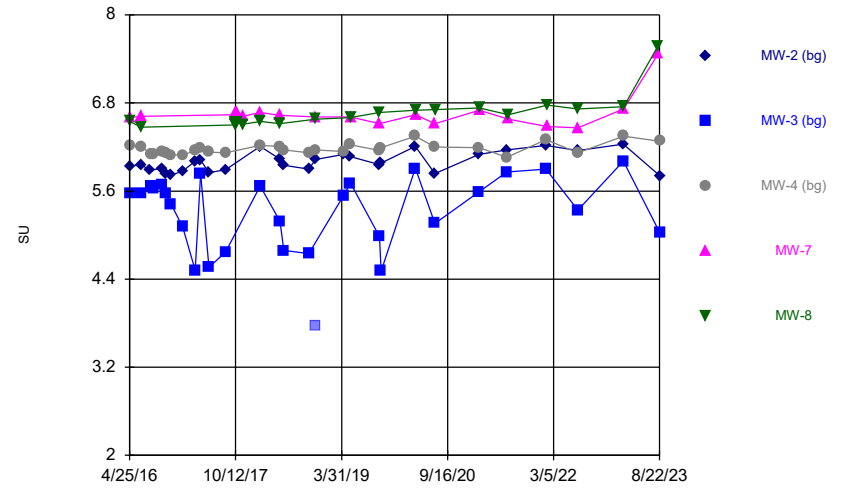
Constituent: Molybdenum Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



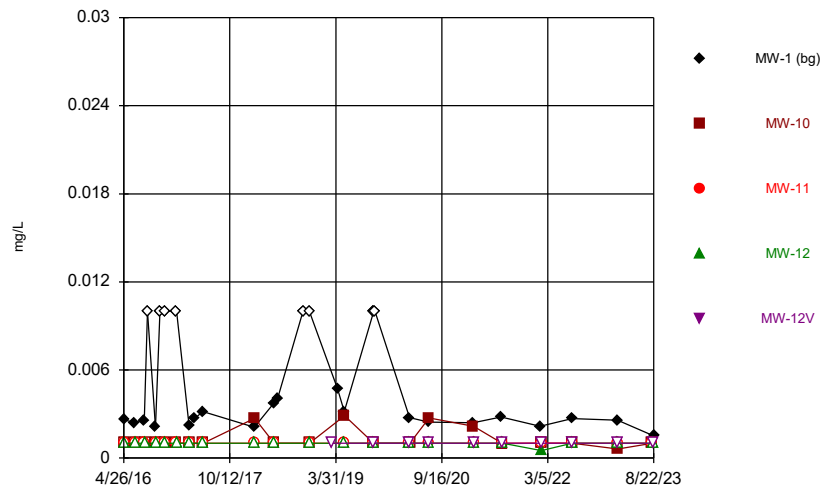
Constituent: pH Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



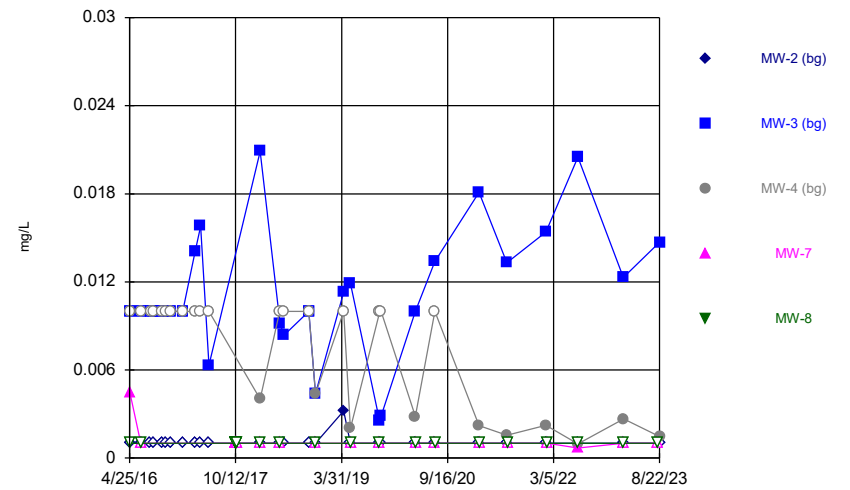
Constituent: pH Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



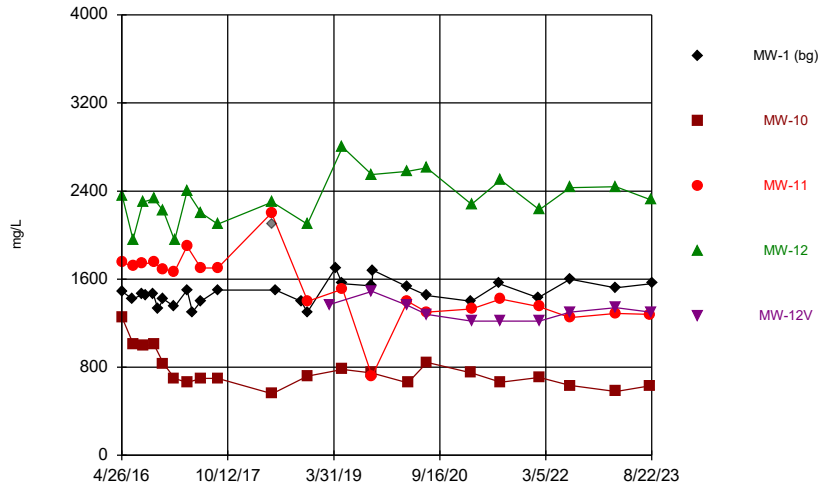
Constituent: Selenium Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



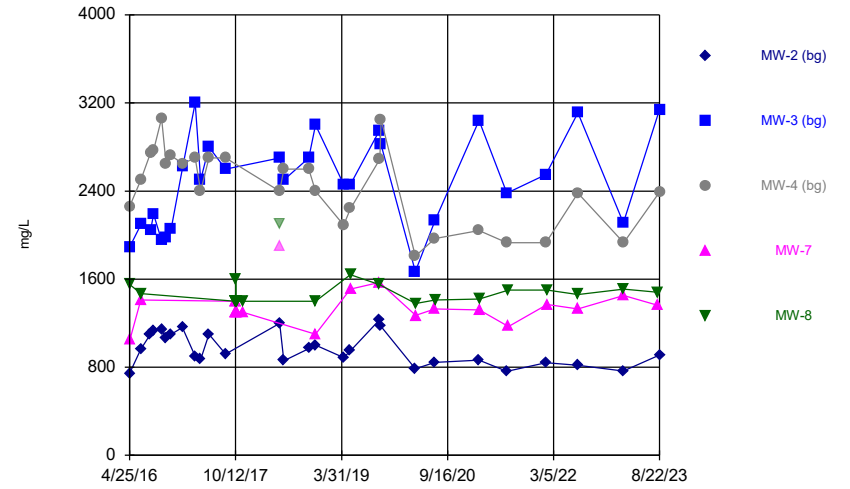
Constituent: Selenium Analysis Run 10/2/2023 3:23 PM View: Constituents View Plant Gorgas Data: Gorgas BALF CCR

Time Series



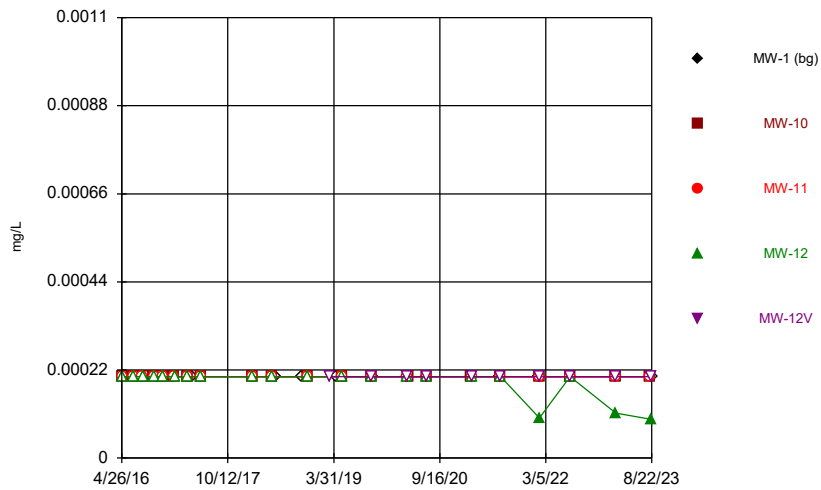
Constituent: Sulfate Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



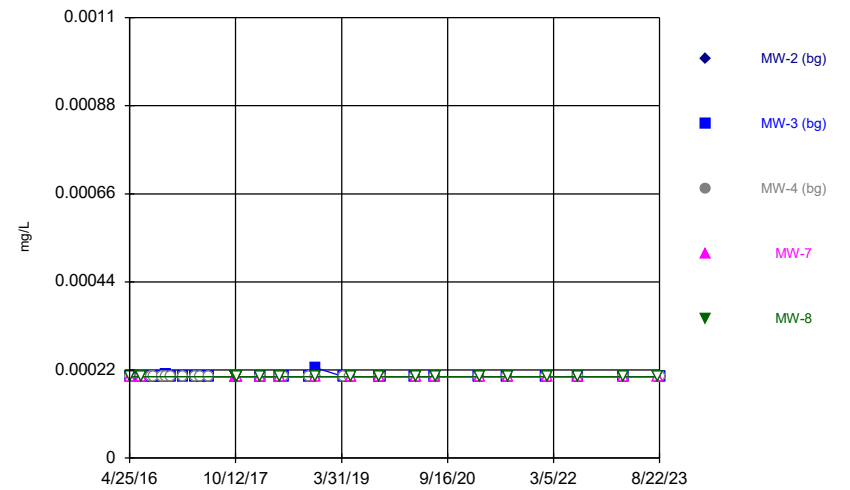
Constituent: Sulfate Analysis Run 10/2/2023 3:23 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



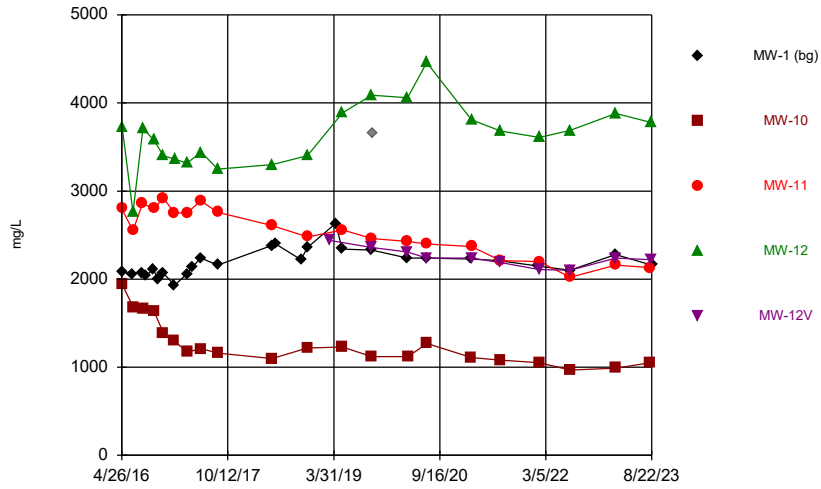
Constituent: Thallium Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



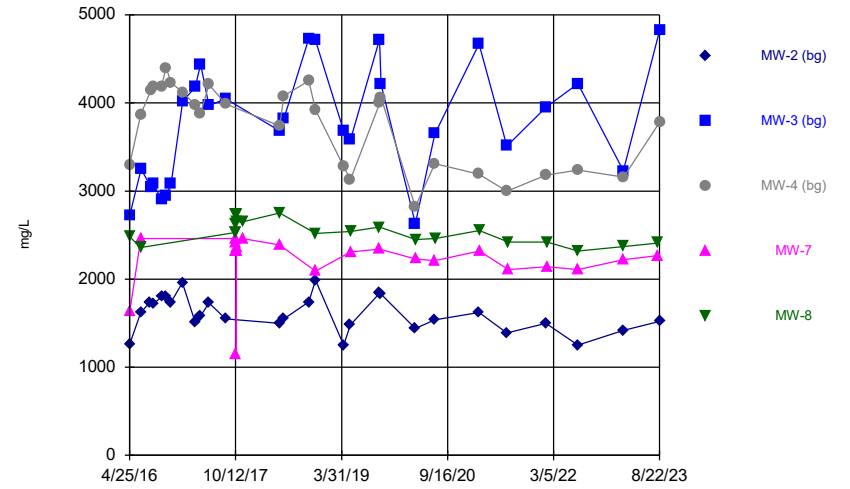
Constituent: Thallium Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.001015		<0.001015		
4/27/2016		<0.001015			
4/28/2016				<0.001015	
6/20/2016	<0.001015				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	<0.001015				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.001015				
10/3/2016	<0.001015				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.001015				
11/21/2016	<0.001015	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.001015	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		<0.001015	<0.001015	<0.001015	
3/22/2017	<0.001015				
4/18/2017	<0.001015				
5/30/2017	<0.001015		<0.001015		
5/31/2017		<0.001015		<0.001015	
2/13/2018	<0.001015				
2/14/2018			<0.001015		
2/15/2018		<0.001015		<0.001015	
5/22/2018	<0.001015		<0.001015		
5/24/2018		<0.001015		<0.001015	
6/12/2018	<0.001015				
10/17/2018	<0.001015				
11/19/2018	<0.001015	<0.001015		<0.001015	
11/20/2018			<0.001015		
3/12/2019					0.00159 (J)
4/10/2019	0.00143 (J)				
5/14/2019	0.00137 (J)				
5/15/2019		0.000996 (J)	<0.001015	0.000977 (J)	
10/8/2019	<0.001015				
10/9/2019		<0.001015		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.001015				
4/6/2020	<0.001015		<0.001015	<0.001015	<0.001015
4/8/2020		<0.001015			
7/13/2020	<0.001015		<0.001015	<0.001015	<0.001015
7/14/2020		<0.001015			
2/22/2021	<0.001015				
2/23/2021		<0.001015			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	<0.001015				
7/20/2021		<0.001015		<0.001015	<0.001015
7/21/2021			<0.001015		
1/25/2022	<0.001015				
2/1/2022		<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.001015		<0.001015	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	<0.001015				
2/21/2023			<0.001015		
2/22/2023		<0.001015		<0.001015	<0.001015
8/15/2023		<0.001015	<0.001015		
8/16/2023				<0.001015	<0.001015
8/22/2023	<0.001015				

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	<0.001015	<0.001015		
4/27/2016				<0.001015	<0.001015
6/20/2016	<0.001015		<0.001015		
6/21/2016				<0.001015	<0.001015
6/22/2016		<0.001015			
8/8/2016	<0.001015				
8/9/2016		<0.001015	<0.001015		
8/24/2016	<0.001015	<0.001015	<0.001015		
10/3/2016	<0.001015		<0.001015		
10/4/2016		<0.001015			
10/26/2016	<0.001015	<0.001015	<0.001015		
11/21/2016	<0.001015	<0.001015	<0.001015		
1/17/2017	<0.001015				
1/18/2017		<0.001015	<0.001015		
3/22/2017	<0.001015	<0.001015	<0.001015		
4/18/2017	<0.001015	<0.001015	<0.001015		
5/31/2017	<0.001015	<0.001015	<0.001015		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.001015	<0.001015	<0.001015
5/24/2018		<0.001015			
6/12/2018	<0.001015	<0.001015	<0.001015		
10/17/2018	<0.001015	<0.001015	<0.001015		
11/19/2018	<0.001015	<0.001015	<0.001015		
11/20/2018				<0.001015	<0.001015
4/10/2019	0.000993 (J)	0.000978 (J)	0.00097 (J)		
5/14/2019	0.000989 (J)	<0.001015	<0.001015		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	<0.001015		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.001015		
10/16/2019	<0.001015	<0.001015	<0.001015		
4/6/2020	<0.001015	<0.001015	<0.001015		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	<0.001015			
7/14/2020			<0.001015	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	<0.001015	<0.001015		
2/23/2021				<0.001015	<0.001015
7/12/2021	<0.001015	<0.001015	<0.001015		
7/20/2021				<0.001015	<0.001015
1/25/2022	<0.001015	<0.001015	<0.001015		
1/31/2022				<0.001015	
2/1/2022					<0.001015
7/5/2022	<0.001015	<0.001015	<0.001015		

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.001015	<0.001015
2/20/2023	<0.001015	<0.001015			
2/21/2023			<0.001015	<0.001015	<0.001015
8/15/2023				<0.001015	<0.001015
8/22/2023	<0.001015	<0.001015	<0.001015		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.005		0.00189 (J)		
4/27/2016		0.00196 (J)			
4/28/2016				0.0444	
6/20/2016	<0.005				
6/22/2016			0.00213 (J)	0.00953	
6/23/2016		<0.005			
8/8/2016	<0.005				
8/9/2016			0.0021 (J)		
8/10/2016		<0.005		0.0416	
8/24/2016	<0.005				
10/3/2016	<0.005				
10/4/2016			0.00206 (J)		
10/5/2016		<0.005		0.0431	
10/26/2016	<0.005				
11/21/2016	<0.005	<0.005	0.00182 (J)		
11/22/2016				0.0487	
1/17/2017	<0.005	<0.005	0.00201 (J)		
1/18/2017				0.0428	
3/21/2017		<0.005	0.00183 (J)	0.0418	
3/22/2017	<0.005				
4/18/2017	<0.005				
5/30/2017	<0.005		0.00214 (J)		
5/31/2017		<0.005		0.0466	
2/13/2018	<0.005				
2/14/2018			0.00171 (J)		
2/15/2018		<0.005		0.0346	
5/22/2018	<0.005		0.00168 (J)		
5/24/2018		<0.005		0.0478	
6/12/2018	<0.005				
10/17/2018	<0.005				
11/19/2018	<0.005	<0.005		0.0405	
11/20/2018			<0.005		
3/12/2019					0.00486 (J)
4/10/2019	<0.005				
5/14/2019	<0.005				
5/15/2019		0.00162 (J)	<0.005	0.0511	
10/8/2019	<0.005				
10/9/2019		<0.005		0.0507	
10/10/2019			<0.005		0.00827
10/16/2019	<0.005				
4/6/2020	<0.005		<0.005	0.0597	0.00731
4/8/2020		0.0013 (J)			
7/13/2020	<0.005		<0.005	0.0613	0.0071
7/14/2020		0.00164 (J)			
2/22/2021	0.000403				
2/23/2021		0.0016			
2/24/2021			0.000834	0.0516	0.00584
7/12/2021	0.00036				
7/20/2021		0.00102		0.0668	0.00573
7/21/2021			0.0009		
1/25/2022	0.00025				
2/1/2022		0.00073	0.00085	0.0679	0.00551

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.000281		0.000881	0.0679	0.0052
7/6/2022		0.000348			
2/20/2023	0.000275				
2/21/2023			0.000859		
2/22/2023		0.000692		0.0651	0.00455
8/15/2023		0.000759	0.000825		
8/16/2023				0.0714	0.0037
8/22/2023	0.000187 (J)				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.005	<0.005	<0.000203		
4/27/2016				<0.005	<0.005
6/20/2016	<0.005		<0.000203		
6/21/2016				0.00165 (J)	0.00101 (J)
6/22/2016		<0.005			
8/8/2016	<0.005				
8/9/2016		<0.005	<0.000203		
8/24/2016	<0.005	<0.005	<0.000203		
10/3/2016	<0.005		<0.000203		
10/4/2016		<0.005			
10/26/2016	<0.005	<0.005	<0.000203		
11/21/2016	0.00111 (J)	<0.005	<0.000203		
1/17/2017	<0.005				
1/18/2017		<0.005	<0.000203		
3/22/2017	<0.005	0.00122 (J)	<0.000203		
4/18/2017	<0.005	<0.005	<0.000203		
5/31/2017	<0.005	<0.005	<0.000203		
10/12/2017				0.00188 (J)	0.00197 (J)
10/13/2017				0.00181 (J)	0.00159 (J)
10/14/2017				0.00127 (J)	0.00126 (J)
10/15/2017				0.00144 (J)	0.00106 (J)
10/16/2017				0.00139 (J)	0.00106 (J)
10/17/2017				0.00138 (J)	0.00103 (J)
2/13/2018	<0.005	<0.005	<0.000203		
2/14/2018				0.00131 (J)	0.00185 (J)
5/22/2018	<0.005				
5/23/2018			<0.000203	0.00155 (J)	0.00157 (J)
5/24/2018		<0.005			
6/12/2018	<0.005	0.00103 (J)	<0.000203		
10/17/2018	<0.005	0.00133 (J)	<0.000203		
11/19/2018	<0.005	0.0012 (J)	<0.000203		
11/20/2018				0.00133 (J)	0.00173 (J)
4/10/2019	<0.005	<0.005	<0.000203		
5/14/2019	<0.005	<0.005	<0.000203		
5/15/2019				0.00138 (J)	0.00136 (J)
10/8/2019	<0.005	0.0048 (J)		0.00145 (J)	
10/9/2019					0.00142 (J)
10/10/2019			<0.000203		
10/16/2019	<0.005	0.00389 (J)	<0.000203		
4/6/2020	<0.005	<0.005	<0.000203		
4/8/2020				0.00136 (J)	0.00102 (J)
7/13/2020	<0.005	0.00316 (J)			
7/14/2020			<0.000203	0.00147 (J)	
7/15/2020					0.00212 (J)
2/22/2021	0.000295	0.000789	0.000125 (J)		
2/23/2021				0.00141	0.00117
7/12/2021	0.00036	0.00038	0.00012 (J)		
7/20/2021				0.00164	0.00111
1/25/2022	0.00033	0.00027	9E-05 (J)		
1/31/2022				0.00156	
2/1/2022					0.00131
7/5/2022	0.00035	0.00374	0.000118 (J)		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.00164	0.00136
2/20/2023	0.000243	0.000224			
2/21/2023			<0.000203	0.00153	0.00119
8/15/2023				0.00164	0.00163
8/22/2023	0.000371	0.00361	0.000145 (J)		

Time Series

Constituent: Barium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.00941 (J)		0.011		
4/27/2016		0.0187			
4/28/2016				0.0109	
6/20/2016	0.00951 (J)				
6/22/2016			0.0122	0.0155	
6/23/2016		0.0181			
8/8/2016	0.00991 (J)				
8/9/2016			0.012		
8/10/2016		0.0186		0.0125	
8/24/2016	0.00949 (J)				
10/3/2016	0.0105				
10/4/2016			0.0142		
10/5/2016		0.023		0.0143	
10/26/2016	0.00931 (J)				
11/21/2016	0.00879 (J)	0.0219	0.0114		
11/22/2016				0.0118	
1/17/2017	0.00929 (J)	0.0203	0.0119		
1/18/2017				0.0112	
3/21/2017		0.0203	0.012	0.0108	
3/22/2017	0.00938 (J)				
4/18/2017	0.00964 (J)				
5/30/2017	0.00982 (J)		0.012		
5/31/2017		0.0188		0.0107	
2/13/2018	0.00937 (J)				
2/14/2018			0.0139		
2/15/2018		0.0199		0.0113	
5/22/2018	0.0102		0.0148		
5/24/2018		0.0198		0.0122	
6/12/2018	0.0104				
10/17/2018	0.00952 (J)				
11/19/2018	0.00915 (J)	0.0187		0.0108	
11/20/2018			0.0127		
3/12/2019					0.0301
4/10/2019	0.0105				
5/14/2019	0.00913 (J)				
5/15/2019		0.0189	0.0132	0.0113	
10/8/2019	0.0109				
10/9/2019		0.0204		0.0126	
10/10/2019			0.0154		0.0236
10/16/2019	0.0106				
4/6/2020	0.00971 (J)		0.0147	0.0128	0.019
4/8/2020		0.0201			
7/13/2020	0.0101		0.0149	0.0124	0.019
7/14/2020		0.0245			
2/22/2021	0.0107				
2/23/2021		0.0201			
2/24/2021			0.015	0.0123	0.0185
7/12/2021	0.00991				
7/20/2021		0.0208		0.012	0.0186
7/21/2021			0.0159		
1/25/2022	0.0098				
2/1/2022		0.0198	0.0132	0.0102	0.0193

Time Series

Constituent: Barium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.01		0.0148	0.011	0.0189
7/6/2022		0.0209			
2/20/2023	0.0102				
2/21/2023			0.0167		
2/22/2023		0.0222		0.0131	0.0198
8/15/2023		0.0195	0.0135		
8/16/2023				0.0105	0.0197
8/22/2023	0.00976				

Time Series

Constituent: Barium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0134	0.00803 (J)	0.0114		
4/27/2016				0.0107	0.0108
6/20/2016	0.0165		0.0103		
6/21/2016				0.0129	0.0116
6/22/2016		0.0101			
8/8/2016	0.0162				
8/9/2016		0.00889 (J)	0.0119		
8/24/2016	0.0139	0.00962 (J)	0.0118		
10/3/2016	0.0164		0.0119		
10/4/2016		0.00984 (J)			
10/26/2016	0.0138	0.00878 (J)	0.0104		
11/21/2016	0.0144	0.00833 (J)	0.0106		
1/17/2017	0.0135				
1/18/2017		0.00966 (J)	0.0101		
3/22/2017	0.0132	0.00991 (J)	0.0103		
4/18/2017	0.012	0.00976 (J)	0.0107		
5/31/2017	0.0126	0.00866 (J)	0.0104		
10/12/2017				0.014	0.0141
10/13/2017				0.0147	0.0148
10/14/2017				0.0123	0.0134
10/15/2017				0.0132	0.0139
10/16/2017				0.0122	0.0129
10/17/2017				0.0121	0.0126
2/13/2018	0.0127	0.00821 (J)	0.0111		
2/14/2018				0.0119	0.0126
5/22/2018	0.0131				
5/23/2018			0.0107	0.0135	0.0137
5/24/2018		0.00977 (J)			
6/12/2018	0.0138	0.00997 (J)	0.0108		
10/17/2018	0.0137	0.0126	0.0119		
11/19/2018	0.0115	0.0109	0.0107		
11/20/2018				0.0116	0.0123
4/10/2019	0.0111	0.0101	0.0107		
5/14/2019	0.0109	0.00922 (J)	0.00949 (J)		
5/15/2019				0.0114	0.0122
10/8/2019	0.0151	0.0154		0.0145	
10/9/2019					0.0137
10/10/2019			0.0116		
10/16/2019	0.0146	0.0128	0.0125		
4/6/2020	0.0125	0.00931 (J)	0.0115		
4/8/2020				0.0127	0.0137
7/13/2020	0.0145	0.0142			
7/14/2020			0.0122	0.0148	
7/15/2020					0.0143
2/22/2021	0.0132	0.00981	0.0111		
2/23/2021				0.014	0.014
7/12/2021	0.013	0.00857	0.0108		
7/20/2021				0.0142	0.0141
1/25/2022	0.0122	0.00821	0.00908		
1/31/2022				0.0126	
2/1/2022					0.0135
7/5/2022	0.0116	0.0155	0.0113		

Time Series

Constituent: Barium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0142	0.0146
2/20/2023	0.0122	0.00822			
2/21/2023			0.0116	0.0141	0.0148
8/15/2023				0.0132	0.0129
8/22/2023	0.0134	0.0158	0.013		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.001015		<0.001015		
4/27/2016		0.00486			
4/28/2016				<0.001015	
6/20/2016	<0.001015				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	<0.001015				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.001015				
10/3/2016	<0.001015				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.001015				
11/21/2016	<0.001015	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.001015	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		0.000883 (J)	<0.001015	<0.001015	
3/22/2017	<0.001015				
4/18/2017	<0.001015				
5/30/2017	<0.001015		<0.001015		
5/31/2017		0.00123 (J)		<0.001015	
2/13/2018	<0.001015				
2/14/2018			<0.001015		
2/15/2018		0.00235 (J)		<0.001015	
5/22/2018	<0.001015		<0.001015		
5/24/2018		0.001 (J)		<0.001015	
6/12/2018	<0.001015				
10/17/2018	<0.001015				
11/19/2018	<0.001015	0.00203 (J)		<0.001015	
11/20/2018			<0.001015		
3/12/2019					<0.001015
4/10/2019	<0.001015				
5/14/2019	<0.001015				
5/15/2019		0.00177 (J)	<0.001015	<0.001015	
10/8/2019	<0.001015				
10/9/2019		0.00072 (J)		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.001015				
4/6/2020	<0.001015		<0.001015	<0.001015	<0.001015
4/8/2020		0.00114 (J)			
7/13/2020	<0.001015		<0.001015	<0.001015	<0.001015
7/14/2020		0.00135 (J)			
2/22/2021	<0.001015				
2/23/2021		0.00128			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	<0.001015				
7/20/2021		0.00095 (J)		<0.001015	<0.001015
7/21/2021			<0.001015		
1/25/2022	<0.001015				
2/1/2022		<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.001015		<0.001015	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	<0.001015				
2/21/2023			<0.001015		
2/22/2023		0.000498 (J)		<0.001015	<0.001015
8/15/2023		<0.001015	<0.001015		
8/16/2023				<0.001015	<0.001015
8/22/2023	<0.001015				

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	0.00122 (J)	<0.001015		
4/27/2016				<0.001015	<0.001015
6/20/2016	<0.001015		<0.001015		
6/21/2016				<0.001015	<0.001015
6/22/2016		0.00144 (J)			
8/8/2016	<0.001015				
8/9/2016		0.00331	<0.001015		
8/24/2016	<0.001015	0.00308	<0.001015		
10/3/2016	<0.001015		<0.001015		
10/4/2016		0.00129 (J)			
10/26/2016	<0.001015	0.0071	<0.001015		
11/21/2016	<0.001015	0.00689	<0.001015		
1/17/2017	<0.001015				
1/18/2017		0.0169 (O)	<0.001015		
3/22/2017	<0.001015	0.00686	<0.001015		
4/18/2017	<0.001015	<0.001015	<0.001015		
5/31/2017	<0.001015	0.00547	<0.001015		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.001015	<0.001015	<0.001015
5/24/2018		0.00164 (J)			
6/12/2018	<0.001015	0.00306	<0.001015		
10/17/2018	<0.001015	0.0121	<0.001015		
11/19/2018	<0.001015	0.0185 (O)	<0.001015		
11/20/2018				<0.001015	<0.001015
4/10/2019	<0.001015	<0.001015	<0.001015		
5/14/2019	<0.001015	<0.001015	<0.001015		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	0.0084		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.001015		
10/16/2019	<0.001015	0.0103	<0.001015		
4/6/2020	<0.001015	<0.001015	<0.001015		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	0.0021 (J)			
7/14/2020			<0.001015	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	<0.001015	<0.001015		
2/23/2021				<0.001015	<0.001015
7/12/2021	<0.001015	<0.001015	<0.001015		
7/20/2021				<0.001015	<0.001015
1/25/2022	<0.001015	<0.001015	<0.001015		
1/31/2022				<0.001015	
2/1/2022					<0.001015
7/5/2022	<0.001015	0.00139	<0.001015		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.001015	<0.001015
2/20/2023	<0.001015	<0.001015			
2/21/2023			<0.001015	<0.001015	<0.001015
8/15/2023				<0.001015	<0.001015
8/22/2023	<0.001015	0.00277	<0.001015		

Time Series

Constituent: Boron (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.0231 (J)		0.094 (J)		
4/27/2016		0.371			
4/28/2016				0.19	
6/20/2016	0.0227 (J)				
6/22/2016			0.0959 (J)	0.118	
6/23/2016		0.251			
8/8/2016	0.0278 (J)				
8/9/2016			0.0964 (J)		
8/10/2016		0.216		0.197	
8/24/2016	0.0247 (J)				
10/3/2016	0.0307 (J)				
10/4/2016			0.0916 (J)		
10/5/2016		0.187		0.179	
10/26/2016	0.0241 (J)				
11/21/2016	0.0202 (J)	0.182	0.0929 (J)		
11/22/2016				0.197	
1/17/2017	0.0201 (J)	0.2	0.0963 (J)		
1/18/2017				0.186	
3/21/2017		0.178	0.0947 (J)	0.183	
3/22/2017	0.0224 (J)				
4/18/2017	<0.1015				
5/30/2017	<0.1015		0.0926 (J)		
5/31/2017		0.149		0.193	
8/23/2017	0.0253 (J)	0.181	0.0968 (J)	0.185	
5/22/2018	0.0224 (J)		0.102		
5/24/2018		0.159		0.197	
6/12/2018	0.0214 (J)				
10/17/2018	0.0216 (J)				
11/19/2018	0.0237 (J)	0.211		0.252	
11/20/2018			0.106		
3/12/2019					0.147
4/10/2019	0.0304 (J)				
5/14/2019	<0.1015				
5/15/2019		0.234	0.101 (J)	0.239	
10/8/2019	<0.1015				
10/9/2019		0.181		0.315	
10/10/2019			0.109		0.15
10/16/2019	0.0385 (J)				
4/6/2020	<0.1015		0.109	0.229	0.149
4/8/2020		0.209			
7/13/2020	<0.1015		0.111	0.266	0.15
7/14/2020		0.25			
2/22/2021	0.0307 (J)				
2/23/2021		0.205			
2/24/2021			0.108	0.193	0.16
7/12/2021	<0.1015				
7/20/2021		0.201		0.227	0.149
7/21/2021			0.104		
1/25/2022	<0.1015				
2/1/2022		0.177	0.105	0.208	0.149
7/5/2022	<0.1015		0.105	0.172	0.157
7/6/2022		0.144			

Time Series

Constituent: Boron (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	<0.1015				
2/21/2023			0.104		
2/22/2023		0.122		0.153	0.152
8/15/2023		0.146	0.105		
8/16/2023				0.165	0.152
8/22/2023	<0.1015				

Time Series

Constituent: Boron (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0241 (J)	0.028 (J)	0.0414 (J)		
4/27/2016				0.253 (o)	0.0662 (J)
6/20/2016	0.0284 (J)		0.0434 (J)		
6/21/2016				0.0768 (J)	0.0681 (J)
6/22/2016		0.0433 (J)			
8/8/2016	0.034 (J)				
8/9/2016		0.0429 (J)	0.0453 (J)		
8/24/2016	0.0316 (J)	0.0431 (J)	0.0451 (J)		
10/3/2016	0.0367 (J)		0.0511 (J)		
10/4/2016		0.04 (J)			
10/26/2016	0.0331 (J)	0.0375 (J)	0.0507 (J)		
11/21/2016	0.035 (J)	0.0406 (J)	0.0458 (J)		
1/17/2017	0.0259 (J)				
1/18/2017		0.0548 (J)	0.0445 (J)		
3/22/2017	0.0243 (J)	0.0344 (J)	0.0432 (J)		
4/18/2017	0.0206 (J)	<0.1015	0.0409 (J)		
5/31/2017	0.0234 (J)	0.0454 (J)	0.0392 (J)		
8/23/2017	0.0267 (J)	0.0425 (J)	0.042 (J)		
10/12/2017				0.0685 (J)	0.0687 (J)
10/13/2017				0.0674 (J)	0.0831 (J)
10/14/2017				0.0756 (J)	0.0702 (J)
10/15/2017				0.0719 (J)	0.0702 (J)
10/16/2017				0.0726 (J)	0.0707 (J)
10/17/2017				0.0716 (J)	0.0695 (J)
11/16/2017				0.0644 (J)	0.0675 (J)
5/22/2018	0.0251 (J)				
5/23/2018			0.0433 (J)	0.0715 (J)	0.0693 (J)
5/24/2018		0.0339 (J)			
6/12/2018	0.0275 (J)	0.0371 (J)	0.0478 (J)		
10/17/2018	0.0321 (J)	0.0596 (J)	0.0468 (J)		
11/19/2018	0.0324 (J)	0.0514 (J)	0.0526 (J)		
11/20/2018				0.0772 (J)	0.0771 (J)
4/10/2019	<0.1015	<0.1015	0.0438 (J)		
5/14/2019	<0.1015	<0.1015	<0.203 (o)		
5/15/2019				0.0678 (J)	0.0689 (J)
10/8/2019	0.0371 (J)	0.0537 (J)		0.073 (J)	
10/9/2019					0.0723 (J)
10/10/2019			0.0487 (J)		
10/16/2019	0.0419 (J)	0.05 (J)	0.0505 (J)		
4/6/2020	<0.1015	<0.1015	0.0428 (J)		
4/8/2020				0.077 (J)	0.0683 (J)
7/13/2020	<0.1015	0.0366 (J)			
7/14/2020			0.0441 (J)	0.0865 (J)	
7/15/2020					0.0723 (J)
2/22/2021	<0.1015	<0.1015	0.0397 (J)		
2/23/2021				0.0803 (J)	0.0731 (J)
7/12/2021	<0.1015	<0.1015	0.0411 (J)		
7/20/2021				0.0721 (J)	0.0656 (J)
1/25/2022	<0.1015	<0.1015	0.0408 (J)		
1/31/2022				0.0689 (J)	
2/1/2022					0.0639 (J)
7/5/2022	<0.1015	0.0374 (J)	0.0433 (J)		

Time Series

Constituent: Boron (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0752 (J)	0.0686 (J)
2/20/2023	<0.1015	<0.1015			
2/21/2023			0.0408 (J)	0.0645 (J)	0.0609 (J)
8/15/2023				0.0663 (J)	0.0654 (J)
8/22/2023	<0.1015	0.0373 (J)	0.0448 (J)		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.00196		<0.000203		
4/27/2016		0.000452 (J)			
4/28/2016				<0.000203	
6/20/2016	0.0021				
6/22/2016			<0.000203	<0.000203	
6/23/2016		<0.000203			
8/8/2016	0.00206				
8/9/2016			<0.000203		
8/10/2016		<0.000203		<0.000203	
8/24/2016	0.00182				
10/3/2016	0.00188				
10/4/2016			<0.000203		
10/5/2016		<0.000203		<0.000203	
10/26/2016	0.00175				
11/21/2016	0.00197	<0.000203	<0.000203		
11/22/2016				<0.000203	
1/17/2017	0.002	<0.000203	<0.000203		
1/18/2017				<0.000203	
3/21/2017		<0.000203	<0.000203	<0.000203	
3/22/2017	0.0019				
4/18/2017	0.00159				
5/30/2017	0.00214		<0.000203		
5/31/2017		<0.000203		<0.000203	
2/13/2018	0.0018				
2/14/2018			<0.000203		
2/15/2018		<0.000203		<0.000203	
5/22/2018	0.00201		<0.000203		
5/24/2018		<0.000203		<0.000203	
6/12/2018	0.00217				
10/17/2018	0.00228				
11/19/2018	0.00156	<0.000203		<0.000203	
11/20/2018			<0.000203		
3/12/2019					<0.000203
4/10/2019	0.00224				
5/14/2019	0.00238				
5/15/2019		<0.000203	<0.000203	<0.000203	
10/8/2019	0.00218				
10/9/2019		<0.000203		<0.000203	
10/10/2019			<0.000203		<0.000203
10/16/2019	0.00225				
4/6/2020	0.00184		<0.000203	<0.000203	<0.000203
4/8/2020		<0.000203			
7/13/2020	0.00194		<0.000203	<0.000203	<0.000203
7/14/2020		<0.000203			
2/22/2021	0.00184				
2/23/2021		0.000148 (J)			
2/24/2021			<0.000203	<0.000203	<0.000203
7/12/2021	0.00193				
7/20/2021		8E-05 (J)		<0.000203	<0.000203
7/21/2021			<0.000203		
1/25/2022	0.00196				
2/1/2022		0.0001 (J)	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.00211		<0.000203	<0.000203	<0.000203
7/6/2022		<0.000203			
2/20/2023	0.00185				
2/21/2023			<0.000203		
2/22/2023		<0.000203		<0.000203	<0.000203
8/15/2023		<0.000203	<0.000203		
8/16/2023				8.7E-05 (J)	<0.000203
8/22/2023	0.00205				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.000203	0.0121 (O)	<0.000203		
4/27/2016				<0.000203	<0.000203
6/20/2016	<0.000203		<0.000203		
6/21/2016				<0.000203	<0.000203
6/22/2016		0.00163			
8/8/2016	<0.000203				
8/9/2016		0.00122	<0.000203		
8/24/2016	<0.000203	<0.001	<0.000203		
10/3/2016	<0.000203		<0.000203		
10/4/2016		0.000689 (J)			
10/26/2016	<0.000203	0.00136	<0.000203		
11/21/2016	<0.000203	0.00171	<0.000203		
1/17/2017	0.000311 (J)				
1/18/2017		0.003	<0.000203		
3/22/2017	<0.000203	0.00473	<0.000203		
4/18/2017	<0.000203	0.00117	<0.000203		
5/31/2017	0.000212 (J)	0.00296	<0.000203		
10/12/2017				<0.000203	<0.000203
10/13/2017				<0.000203	<0.000203
10/14/2017				<0.000203	<0.000203
10/15/2017				<0.000203	<0.000203
10/16/2017				<0.000203	<0.000203
10/17/2017				<0.000203	<0.000203
2/13/2018	<0.000203	0.00232	<0.000203		
2/14/2018				<0.000203	<0.000203
5/22/2018	<0.000203				
5/23/2018			<0.000203	<0.000203	<0.000203
5/24/2018		0.00459			
6/12/2018	<0.000203	0.00351	<0.000203		
10/17/2018	<0.000203	0.00393	<0.000203		
11/19/2018	<0.000203	0.00309	<0.000203		
11/20/2018				<0.000203	<0.000203
4/10/2019	<0.000203	0.00337	<0.000203		
5/14/2019	<0.000203	0.0013	<0.000203		
5/15/2019				<0.000203	<0.000203
10/8/2019	<0.000203	0.00598		<0.000203	
10/9/2019					<0.000203
10/10/2019			<0.000203		
10/16/2019	<0.000203	0.00448	<0.000203		
4/6/2020	<0.000203	0.000645 (J)	<0.000203		
4/8/2020				<0.000203	<0.000203
7/13/2020	<0.000203	0.00885			
7/14/2020			<0.000203	<0.000203	
7/15/2020					<0.000203
2/22/2021	8.96E-05 (J)	0.00536	8.96E-05 (J)		
2/23/2021				<0.000203	<0.000203
7/12/2021	8E-05 (J)	0.00094	8E-05 (J)		
7/20/2021				<0.000203	<0.000203
1/25/2022	8E-05 (J)	0.00178	<0.000203		
1/31/2022				<0.000203	
2/1/2022					<0.000203
7/5/2022	8.4E-05 (J)	0.00835	7.5E-05 (J)		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.000203	<0.000203
2/20/2023	<0.000203	0.00144			
2/21/2023			<0.000203	<0.000203	<0.000203
8/15/2023				<0.000203	<0.000203
8/22/2023	8.5E-05 (J)	0.00867	8.5E-05 (J)		

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	147		400		
4/27/2016		279			
4/28/2016				349	
6/20/2016	152				
6/22/2016			398	374	
6/23/2016		256			
8/8/2016	150				
8/9/2016			399		
8/10/2016		245		348	
8/24/2016	142				
10/3/2016	139				
10/4/2016			389		
10/5/2016		225		344	
10/26/2016	133				
11/21/2016	144	179	386		
11/22/2016				342	
1/17/2017	131	168	344		
1/18/2017				359	
3/21/2017		152	396	352	
3/22/2017	141				
4/18/2017	149				
5/30/2017	140		370		
5/31/2017		130		313	
8/23/2017	152	147	374	349	
5/22/2018	166		375		
5/24/2018		159		349	
6/12/2018	203				
10/17/2018	171				
11/19/2018	154	160		348	
11/20/2018			370		
3/12/2019					355
4/10/2019	243				
5/14/2019	167				
5/15/2019		186	380	411	
10/8/2019	157				
10/9/2019		146		359	
10/10/2019			373		319
10/16/2019	157				
4/6/2020	149		333	354	301
4/8/2020		164			
7/13/2020	147		350	392	305
7/14/2020		208			
2/22/2021	151				
2/23/2021		151			
2/24/2021			325	346	293
7/12/2021	149				
7/20/2021		149		330	283
7/21/2021			322		
1/25/2022	150				
2/1/2022		155	335	334	293
7/5/2022	168		333	330	295
7/6/2022		150			

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	151				
2/21/2023			314		
2/22/2023		152		304	297
8/15/2023		188	367		
8/16/2023				313	319
8/22/2023	183				

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	123	224	261		
4/27/2016				198	282
6/20/2016	168		295		
6/21/2016				327	291
6/22/2016		266			
8/8/2016	180				
8/9/2016		260	318		
8/24/2016	180	274	319		
10/3/2016	184		293		
10/4/2016		243			
10/26/2016	171	254	311		
11/21/2016	179	263	320		
1/17/2017	188				
1/18/2017		431	417		
3/22/2017	155	318	292		
4/18/2017	156	296	302		
5/31/2017	151	306	284		
8/23/2017	155	298	297		
10/12/2017				317	300
10/13/2017				302	298
10/14/2017				283	299
10/15/2017				294	307
10/16/2017				284	299
10/17/2017				294	294
11/16/2017				299	308
5/22/2018	172				
5/23/2018			296	321	344
5/24/2018		297			
6/12/2018	179	318	355		
10/17/2018	200	392	342		
11/19/2018	221	387	289		
11/20/2018				306	327
4/10/2019	200	348	356		
5/14/2019	168	254	254		
5/15/2019				302	305
10/8/2019	190	371		294	
10/9/2019					329
10/10/2019			302		
10/16/2019	194	346	356		
4/6/2020	152	177	222		
4/8/2020				280	281
7/13/2020	163	264			
7/14/2020			259	261	
7/15/2020					280
2/22/2021	178	312	271		
2/23/2021				292	306
7/12/2021	159	252	242		
7/20/2021				254	281
1/25/2022	179	285	259		
1/31/2022				278	
2/1/2022					284
7/5/2022	172	369	294		

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				280	306
2/20/2023	160	210			
2/21/2023			232	286	327
8/15/2023				339	328
8/22/2023	168	359	287		

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	1.94		2.16		
4/27/2016		1.46			
4/28/2016				4.12	
6/20/2016	2.09				
6/22/2016			2.16	3.44	
6/23/2016		1.49			
8/8/2016	2.18				
8/9/2016			2.19		
8/10/2016		1.55		4.15	
8/24/2016	2.22				
10/3/2016	2.34				
10/4/2016			2.21		
10/5/2016		1.58		4.12	
10/26/2016	2.34				
11/21/2016	2.5	1.62	2.24		
11/22/2016				3.98	
1/17/2017	2.68	1.61	2.23		
1/18/2017				3.6	
3/21/2017		1.6 (J)	2.5	3.6	
3/22/2017	3.7				
4/18/2017	2.4				
5/30/2017	2.6		3.2		
5/31/2017		3.2		3.9	
8/23/2017	2.7	6.1	2.8	4.2	
5/22/2018	2.3		24		
5/24/2018		5		7.1	
6/12/2018	2.3				
10/17/2018	1.7 (J)				
11/19/2018	1.7 (J)	7.8		6.1	
11/20/2018			59		
3/12/2019					84.8
4/10/2019	2.36				
5/14/2019	2.28				
5/15/2019		6.93	75.4	8.51	
10/8/2019	2.31				
10/9/2019		4.51		8.73	
10/10/2019			84.6		79.3
10/16/2019	2.42				
4/6/2020	2.01		100	8.58	79.4
4/8/2020		2.64			
7/13/2020	2.1		79.6	8.35	70.1
7/14/2020		3.09			
2/22/2021	2.16				
2/23/2021		3.63			
2/24/2021			113	11.2	101
7/12/2021	2.19				
7/20/2021		3.64		9.85	59.2
7/21/2021			73.8		
1/25/2022	2.09				
2/1/2022		3.97	68.3	11.5	69.3
7/5/2022	2.07		55.200001	10.5	62
7/6/2022		2.79			

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	2.05				
2/21/2023			50.400002		
2/22/2023		2.77		10.9	34.299999
8/15/2023		3.54	50.400002		
8/16/2023				11	41.299999
8/22/2023	2.38				

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	1.9	1.32	1.53		
4/27/2016				1.71	2.34
6/20/2016	3.43		1.85		
6/21/2016				2.04	2.29
6/22/2016		1.46			
8/8/2016	3.31				
8/9/2016		1.35	1.95		
8/24/2016	3.23	1.47	2.07		
10/3/2016	3.21		2.02		
10/4/2016		1.59			
10/26/2016	3.35	1.27	2.07		
11/21/2016	3.34	1.38	2.39		
1/17/2017	3.58				
1/18/2017		1.34	1.9		
3/22/2017	3.4	2	1.5 (J)		
4/18/2017	2.6	2.2	1.6 (J)		
5/31/2017	4.4	1.5 (J)	2.1		
8/23/2017	4.4	1.8 (J)	2.3		
10/12/2017				31	150
10/13/2017				32	130
10/14/2017				33	140
10/15/2017				34	130
10/16/2017				34	140
10/17/2017				34	140
11/16/2017				35	130
5/22/2018	3.2				
5/23/2018			2	28	75
5/24/2018		1.6 (J)			
6/12/2018	3.7	1.4 (J)	1.7 (J)		
10/17/2018	4.6	<2	1.5 (J)		
11/19/2018	3	<2	<2		
11/20/2018				20	45
4/10/2019	1.76	2.25	1.88		
5/14/2019	2.98	2.28	1.82		
5/15/2019				15.9	52
10/8/2019	4.26	1.36		16.8	
10/9/2019					39.2
10/10/2019			1.93		
10/16/2019	4.04	1.4	1.92		
4/6/2020	2.43	1.72	1.5		
4/8/2020				10.6	24.9
7/13/2020	4.05	1.34			
7/14/2020			1.61	9.68	
7/15/2020					23.8
2/22/2021	1.72	2.22	1.52		
2/23/2021				7.85	17.9
7/12/2021	2.36	2.13	1.56		
7/20/2021				6.35	14.3
1/25/2022	2.14	2.12	1.54		
1/31/2022				6.4	
2/1/2022					8.56
7/5/2022	2.53	1.59	1.63		

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				6.25	6.5
2/20/2023	1.7	1.94			
2/21/2023			1.58	6.12	4.86
8/15/2023				6.51	4.92
8/22/2023	3.13	1.31	1.86		

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.001015		<0.001015		
4/27/2016		<0.001015			
4/28/2016				<0.001015	
6/20/2016	<0.001015				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	<0.001015				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.001015				
10/3/2016	<0.001015				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.001015				
11/21/2016	<0.001015	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.001015	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		<0.001015	<0.001015	<0.001015	
3/22/2017	<0.001015				
4/18/2017	<0.001015				
5/30/2017	<0.001015		<0.001015		
5/31/2017		<0.001015		<0.001015	
2/13/2018	<0.001015				
2/14/2018			<0.001015		
2/15/2018		<0.001015		<0.001015	
5/22/2018	<0.001015		<0.001015		
5/24/2018		<0.001015		<0.001015	
6/12/2018	<0.001015				
10/17/2018	<0.001015				
11/19/2018	<0.001015	<0.001015		<0.001015	
11/20/2018			<0.001015		
3/12/2019					<0.001015
4/10/2019	<0.001015				
5/14/2019	<0.001015				
5/15/2019		<0.001015	<0.001015	<0.001015	
10/8/2019	<0.001015				
10/9/2019		<0.001015		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.001015				
4/6/2020	<0.001015		<0.001015	<0.001015	<0.001015
4/8/2020		<0.001015			
7/13/2020	<0.001015		<0.001015	<0.001015	<0.001015
7/14/2020		<0.001015			
2/22/2021	0.000382 (J)				
2/23/2021		<0.001015			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	0.00049 (J)				
7/20/2021		0.00021 (J)		0.00028 (J)	<0.001015
7/21/2021			<0.001015		
1/25/2022	0.00043 (J)				
2/1/2022		0.00029 (J)	0.00033 (J)	0.00033 (J)	0.00039 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.000364 (J)		0.000269 (J)	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	0.000409 (J)				
2/21/2023			<0.001015		
2/22/2023		0.000277 (J)		<0.001015	<0.001015
8/15/2023		0.000265 (J)	0.000258 (J)		
8/16/2023				0.00037 (J)	0.000252 (J)
8/22/2023	<0.001015				

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	0.00373 (J)	<0.001015		
4/27/2016				<0.001015	<0.001015
6/20/2016	<0.001015		<0.001015		
6/21/2016				<0.001015	<0.001015
6/22/2016		0.00606 (J)			
8/8/2016	<0.001015				
8/9/2016		<0.001015	<0.001015		
8/24/2016	<0.001015	<0.001015	<0.001015		
10/3/2016	<0.001015		<0.001015		
10/4/2016		<0.001015			
10/26/2016	<0.001015	<0.001015	<0.001015		
11/21/2016	<0.001015	<0.001015	<0.001015		
1/17/2017	<0.001015				
1/18/2017		<0.001015	<0.001015		
3/22/2017	<0.001015	0.00945 (J)	<0.001015		
4/18/2017	<0.001015	0.0105	<0.001015		
5/31/2017	<0.001015	<0.001015	<0.001015		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.001015	<0.001015	<0.001015
5/24/2018		<0.001015			
6/12/2018	<0.001015	<0.001015	<0.001015		
10/17/2018	<0.001015	<0.001015	<0.001015		
11/19/2018	<0.001015	<0.001015	<0.001015		
11/20/2018				<0.001015	<0.001015
4/10/2019	<0.001015	<0.001015	<0.001015		
5/14/2019	<0.001015	<0.001015	<0.001015		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	<0.001015		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.001015		
10/16/2019	<0.001015	<0.001015	<0.001015		
4/6/2020	<0.001015	<0.001015	<0.001015		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	<0.001015			
7/14/2020			<0.001015	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	0.00035 (J)	<0.001015		
2/23/2021				<0.001015	<0.001015
7/12/2021	0.00025 (J)	0.00031 (J)	0.0003 (J)		
7/20/2021				<0.001015	<0.001015
1/25/2022	0.00022 (J)	0.00051 (J)	0.00021 (J)		
1/31/2022				0.00032 (J)	
2/1/2022					0.00025 (J)
7/5/2022	<0.001015	0.00025 (J)	<0.001015		

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.001015	<0.001015
2/20/2023	0.00033 (J)	0.000384 (J)			
2/21/2023			0.000244 (J)	<0.001015	<0.001015
8/15/2023				0.00026 (J)	0.000211 (J)
8/22/2023	<0.001015	<0.001015	0.000571 (J)		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.0343		<0.005		
4/27/2016		0.0543			
4/28/2016				0.0531	
6/20/2016	0.0413				
6/22/2016			<0.005	0.0388	
6/23/2016		0.0106			
8/8/2016	0.0513				
8/9/2016			<0.005		
8/10/2016		0.00438 (J)		0.0565	
8/24/2016	0.0471				
10/3/2016	0.0525				
10/4/2016			<0.005		
10/5/2016		0.00663 (J)		0.0479	
10/26/2016	0.0527				
11/21/2016	0.0569	0.0109	<0.005		
11/22/2016				0.0453	
1/17/2017	0.0768	0.0146	<0.005		
1/18/2017				0.0431	
3/21/2017		0.013	<0.005	0.0414	
3/22/2017	0.0535				
4/18/2017	0.0442				
5/30/2017	0.0465		<0.005		
5/31/2017		0.0086 (J)		0.0379	
2/13/2018	0.062				
2/14/2018			<0.005		
2/15/2018		0.0199		0.0333	
5/22/2018	0.0443		<0.005		
5/24/2018		0.00905 (J)		0.0399	
6/12/2018	0.0512				
10/17/2018	0.0751				
11/19/2018	0.0825	0.0147		0.0485	
11/20/2018			<0.005		
3/12/2019					<0.005
4/10/2019	0.0445				
5/14/2019	0.0485				
5/15/2019		0.0226	<0.005	0.0603	
10/8/2019	0.0778				
10/9/2019		0.00969		0.0512	
10/10/2019			<0.005		<0.005
10/16/2019	0.08				
4/6/2020	0.0417		<0.005	0.0537	<0.005
4/8/2020		0.0176			
7/13/2020	0.0532		<0.005	0.0515	<0.005
7/14/2020		0.0232			
2/22/2021	0.0657				
2/23/2021		0.0167			
2/24/2021			0.00026	0.0442	0.000378
7/12/2021	0.0556				
7/20/2021		0.0131		0.046	0.00018 (J)
7/21/2021			0.00025		
1/25/2022	0.0654				
2/1/2022		0.00978	0.00046	0.0474	0.00022

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.0627		0.000443	0.0512	6.8E-05 (J)
7/6/2022		0.00285			
2/20/2023	0.0665				
2/21/2023			0.000889		
2/22/2023		0.00105		0.0535	0.000114 (J)
8/15/2023		0.00267	0.000894		
8/16/2023				0.0527	0.000175 (J)
8/22/2023	0.086				

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0487	0.232	<0.000203		
4/27/2016				<0.01	0.00436 (J)
6/20/2016	0.0767		<0.000203		
6/21/2016				<0.01	0.00484 (J)
6/22/2016		0.332			
8/8/2016	0.103				
8/9/2016		0.311	<0.000203		
8/24/2016	0.093	0.271	<0.000203		
10/3/2016	0.0964		<0.000203		
10/4/2016		0.148			
10/26/2016	0.0904	0.236	<0.000203		
11/21/2016	0.0857	0.241	<0.000203		
1/17/2017	0.0745				
1/18/2017		0.347	<0.000203		
3/22/2017	0.0328	0.271	<0.000203		
4/18/2017	0.0242	0.00324 (J)	<0.000203		
5/31/2017	0.0441	0.225	<0.000203		
10/12/2017				0.00269 (J)	0.005 (J)
10/13/2017				0.00341 (J)	0.0052 (J)
10/14/2017				0.00451 (J)	0.00513 (J)
10/15/2017				0.00371 (J)	0.00518 (J)
10/16/2017				0.00371 (J)	0.00453 (J)
10/17/2017				0.0035 (J)	0.00463 (J)
2/13/2018	0.0179	0.00661 (J)	<0.000203		
2/14/2018				<0.01	0.00441 (J)
5/22/2018	0.028				
5/23/2018			<0.000203	<0.01	0.00466 (J)
5/24/2018		0.158			
6/12/2018	0.0366	0.291	<0.000203		
10/17/2018	0.0745	0.49	<0.000203		
11/19/2018	0.0225	0.386	<0.000203		
11/20/2018				0.00306 (J)	0.00551
4/10/2019	0.0152	0.0144	<0.000203		
5/14/2019	0.0222	0.00536	<0.000203		
5/15/2019				0.00234 (J)	0.00643
10/8/2019	0.0674	1.07 (o)		0.00408 (J)	
10/9/2019					0.00864
10/10/2019			<0.000203		
10/16/2019	0.073	0.848 (o)	<0.000203		
4/6/2020	0.0116	<0.005	<0.000203		
4/8/2020				0.00394 (J)	0.00762
7/13/2020	0.0405	0.47			
7/14/2020			<0.000203	0.00653	
7/15/2020					0.00821
2/22/2021	0.0161	0.0515	<0.000203		
2/23/2021				0.00294	0.00796
7/12/2021	0.0155	0.00567	<0.000203		
7/20/2021				0.00561	0.00714
1/25/2022	0.0166	0.0051	<0.000203		
1/31/2022				0.00546	
2/1/2022					0.0075
7/5/2022	0.0184	0.195	<0.000203		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0059	0.00701
2/20/2023	0.0187	0.00435			
2/21/2023			<0.000203	0.0043	0.00682
8/15/2023				0.00391	0.00596
8/22/2023	0.0434	0.529	0.000142 (J)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.622		0.57		
4/27/2016		0.316 (U)		0.259 (U)	
4/28/2016				0.608	
6/20/2016	0.159 (U)				
6/22/2016			0.724	0.45 (U)	
6/23/2016		0.451 (U)			
8/8/2016	0.511 (U)				
8/9/2016			0.579		
8/10/2016		0.368 (U)		1.03	
8/24/2016	0.566 (U)				
10/3/2016	0.537 (U)				
10/4/2016			0.372 (U)		
10/5/2016		0.515		0.494 (U)	
10/26/2016	0.636				
11/21/2016	0.807	0.489 (U)	1.19		
11/22/2016				0.578	
1/17/2017	0.308 (U)	0.236 (U)	-0.187 (U)		
1/18/2017				0.216 (U)	
3/21/2017		0.101 (U)	0.403 (U)	0.101 (U)	
3/22/2017	0.344 (U)				
4/18/2017	0.934				
5/30/2017	0.149 (U)		0.998		
5/31/2017		1.19		1.4	
2/13/2018	0.774				
2/14/2018			1.74		
2/15/2018		0.55		0.925	
5/22/2018	-0.091 (U)		0.276 (U)		
5/24/2018		0.472		0.756	
6/12/2018	1.18				
10/17/2018	0.553 (U)				
11/19/2018	0.862 (D)	0.167 (U)		0.648	
11/20/2018			1.04		
3/12/2019					0.369
5/14/2019	0.509				
5/15/2019		0.421 (U)	1.18	1	
10/8/2019	1.47				
10/9/2019		0.742 (U)		1.18	
10/10/2019			0.902		0.446 (U)
10/16/2019	0.204 (U)				
4/6/2020	0.309 (U)		0.678	1.22	0.116 (U)
4/8/2020		0.205 (U)			
7/13/2020	0.219 (U)		0.665	0.787	0.794
7/14/2020		0.314 (U)			
2/22/2021	0.677 (U)				
2/23/2021		0.329 (U)			
2/24/2021			0.869 (U)	1.24	0.865 (U)
7/12/2021	0.476 (U)				
7/20/2021		0.344 (U)		1.15 (U)	0.763 (U)
7/21/2021			0.951 (U)		
1/25/2022	1.01 (U)				
2/1/2022		0.012 (U)	0.883 (U)	1.13 (U)	1.01 (U)
7/5/2022	1.49		0.697 (U)	1.72	1.09 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/6/2022		0.501 (U)			
2/20/2023	0.36 (U)				
2/21/2023			0.699 (U)		
2/22/2023		0.804 (U)		1.05	0.782 (U)
8/15/2023		0.991 (U)	1.21 (U)		
8/16/2023				0.964 (U)	0.862 (U)
8/22/2023	1.1 (U)				

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016		0.484 (U)	0.434 (U)		
4/27/2016				0.374 (U)	-0.207 (U)
5/5/2016	-0.0718 (U)				
6/20/2016	0.295 (U)		0.287 (U)		
6/21/2016				0.151 (U)	0.529
6/22/2016		0.2 (U)			
8/8/2016	0.231 (U)				
8/9/2016		0.378 (U)	0.516 (U)		
8/24/2016	0.65	0.131 (U)	0.266 (U)		
10/3/2016	0.845		0.59 (U)		
10/4/2016		0.514 (U)			
10/26/2016	0.994	0.755	0.164 (U)		
11/21/2016	0.537 (U)	0.7	0.296 (U)		
1/17/2017	-0.0159 (U)				
1/18/2017		0.606	0.0267 (U)		
3/22/2017	0.279 (U)	0.927	0.132 (U)		
4/18/2017	0.32 (U)	0.334 (U)	-0.0439 (U)		
5/31/2017	0.178 (U)	0.8	0.3 (U)		
10/12/2017				0.182 (U)	0.267 (U)
10/13/2017				0.517 (U)	0.873 (U)
10/14/2017				0.43 (U)	1.6 (U)
10/15/2017				0.45 (U)	0.327 (U)
10/16/2017				0.55 (U)	0.524 (U)
10/17/2017				0.474 (U)	0.0455 (U)
2/13/2018	0.804	0.649	0.69		
2/14/2018				0.736	0.633
5/22/2018	0.0077 (U)				
5/23/2018			0.186 (U)	0.0192 (U)	0.377 (U)
5/24/2018		0.448 (U)			
6/12/2018	-0.315 (U)	0.234 (U)	0.153 (U)		
10/17/2018	0.574 (U)	0.852	0.313 (U)		
11/19/2018	0.654 (D)	0.521 (D)	0.794 (D)		
11/20/2018				0.494	0.28 (U)
5/14/2019	0.579	0.176 (U)	0.352 (U)		
5/15/2019				0.61	0.697
10/8/2019	0.493 (U)	0.833 (U)		0.345 (U)	
10/9/2019					0.416 (U)
10/10/2019			1.02 (U)		
10/16/2019	0.046 (U)	0.0279 (U)	0.356 (U)		
4/6/2020	0.212 (U)	0.569 (U)	0.459 (U)		
4/8/2020				0.237 (U)	1.38 (U)
7/13/2020	0.0814 (U)	0.53			
7/14/2020			0.169 (U)	0.434	
7/15/2020					0.398 (U)
2/22/2021	0.434 (U)	0.472 (U)	0 (U)		
2/23/2021				0.696 (U)	0.685 (U)
7/12/2021	0.155 (U)	0.114 (U)	0.301 (U)		
7/20/2021				0.356 (U)	0.42 (U)
1/25/2022	0.663 (U)	0.418 (U)	0.884 (U)		
1/31/2022				0.473 (U)	
2/1/2022					0.643 (U)
7/5/2022	1.31	1.33	1.1		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.716 (U)	0.415 (U)
2/20/2023	0.837 (U)	0.234 (U)			
2/21/2023			0.3 (U)	0.789 (U)	2.19
8/15/2023				0.452 (U)	0.269 (U)
8/22/2023	0.763 (U)	1.19 (U)	0.887 (U)		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.146 (J)		0.084 (J)		
4/27/2016		0.337			
4/28/2016				0.153 (J)	
6/20/2016	0.148 (J)				
6/22/2016			0.106 (J)	0.146 (J)	
6/23/2016		0.155 (J)			
8/8/2016	0.137 (J)				
8/9/2016			0.092 (J)		
8/10/2016		0.123 (J)		0.127 (J)	
8/24/2016	0.133 (J)				
10/3/2016	0.103 (J)				
10/4/2016			0.049 (J)		
10/5/2016		0.086 (J)		0.09 (J)	
10/26/2016	0.05 (J)				
11/21/2016	0.047 (J)	0.056 (J)	<0.3		
11/22/2016				0.012 (J)	
1/17/2017	0.09 (J)	0.103 (J)	0.044 (J)		
1/18/2017				0.071 (J)	
3/21/2017		0.15	0.08 (J)	0.09 (J)	
3/22/2017	0.12				
4/18/2017	0.12				
5/30/2017	0.13		0.096 (J)		
5/31/2017		0.18		0.11	
8/23/2017	0.16	0.23	0.11	0.13	
2/13/2018	0.14				
2/14/2018			0.1		
2/15/2018		0.23		0.12	
5/22/2018	0.16		0.1		
5/24/2018		0.13		0.15	
6/12/2018	0.16				
10/17/2018	0.18				
11/19/2018	0.15	0.26		0.16	
11/20/2018			0.1		
3/12/2019					0.177
4/10/2019	0.102				
5/14/2019	0.119				
5/15/2019		0.276	0.1	0.185	
10/8/2019	0.0924 (J)				
10/9/2019		0.142		0.215	
10/10/2019			0.0915 (J)		0.163
10/16/2019	0.0756 (J)				
4/6/2020	0.101		0.118	0.254	0.188
4/8/2020		0.243			
7/13/2020	0.0678 (J)		0.108	0.161	0.166
7/14/2020		0.224			
2/22/2021	0.082 (J)				
2/23/2021		0.202			
2/24/2021			0.107	0.172	0.17
7/12/2021	0.125				
7/20/2021		0.268		0.219	0.224
7/21/2021			0.16		
1/25/2022	0.101				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/1/2022		0.157	0.0848 (J)	0.174	0.151
7/5/2022	0.11 (J)		0.124 (J)	0.275	0.212
7/6/2022		0.145			
2/20/2023	0.221				
2/21/2023			0.129		
2/22/2023		0.132		0.239	0.199
8/15/2023		0.0889 (J)	0.122 (J)		
8/16/2023				0.134	0.152
8/22/2023	0.159				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.149 (J)	0.243 (J)	0.372		
4/27/2016				0.2 (J)	0.212 (J)
6/20/2016	0.148 (J)		0.361		
6/21/2016				0.163 (J)	0.211 (J)
6/22/2016		0.269 (J)			
8/8/2016	0.134 (J)				
8/9/2016		0.363	0.326		
8/24/2016	0.129 (J)	0.346	0.329		
10/3/2016	0.086 (J)		0.287 (J)		
10/4/2016		0.266 (J)			
10/26/2016	0.027 (J)	0.266 (J)	0.194 (J)		
11/21/2016	0.027 (J)	0.244 (J)	0.192 (J)		
1/17/2017	0.066 (J)				
1/18/2017		0.385	0.223 (J)		
3/22/2017	0.13	0.41	0.32		
4/18/2017	0.16	0.29	0.32		
5/31/2017	0.13	0.37	0.31		
8/23/2017	0.16	0.55	0.38		
10/12/2017				0.17	0.22
10/13/2017				0.19	0.23
10/14/2017				0.2	0.22
10/15/2017				0.2	0.22
10/16/2017				0.2	0.22
10/17/2017				0.19	0.21
11/16/2017				0.18	0.22
2/13/2018	0.22	0.27	0.38		
2/14/2018				0.18	0.21
5/22/2018	0.17				
5/23/2018			0.38	0.18	0.21
5/24/2018		0.6			
6/12/2018	0.16	0.53	0.39		
10/17/2018	0.16	0.63	0.39		
11/19/2018	0.18	0.31	0.36		
11/20/2018				0.19	0.21
4/10/2019	0.262	0.273	0.384		
5/14/2019	0.17	0.281	0.335		
5/15/2019				0.169	0.192
10/8/2019	0.164	0.225		0.183	
10/9/2019					0.189
10/10/2019			0.304		
10/16/2019	0.114	0.106	0.302		
4/6/2020	0.207	0.314	0.368		
4/8/2020				0.153	0.192
7/13/2020	0.132	0.13			
7/14/2020			0.33	0.193	
7/15/2020					0.196
2/22/2021	0.209	0.246	0.357		
2/23/2021				0.2	0.208
7/12/2021	0.196	0.287	0.35		
7/20/2021				0.286	0.262
1/25/2022	0.204	0.325	0.364		
1/31/2022				0.173	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
2/1/2022					0.177
7/5/2022	0.2	0.386	0.362		
7/6/2022				0.208	0.173
2/20/2023	0.267	0.379			
2/21/2023			0.415	0.216	0.212
8/15/2023				0.154	0.174
8/22/2023	0.184	0.283	0.358		

Time Series

Constituent: Lead (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.000203		<0.000203		
4/27/2016		<0.000203			
4/28/2016				<0.005	
6/20/2016	<0.000203				
6/22/2016			<0.000203	<0.005	
6/23/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016			<0.000203		
8/10/2016		<0.000203		<0.005	
8/24/2016	<0.000203				
10/3/2016	<0.000203				
10/4/2016			<0.000203		
10/5/2016		<0.000203		<0.005	
10/26/2016	<0.000203				
11/21/2016	<0.000203	<0.000203	<0.000203		
11/22/2016				<0.005	
1/17/2017	<0.000203	<0.000203	<0.000203		
1/18/2017				<0.005	
3/21/2017		<0.000203	<0.000203	<0.005	
3/22/2017	<0.000203				
4/18/2017	<0.000203				
5/30/2017	<0.000203		<0.000203		
5/31/2017		<0.000203		<0.005	
2/13/2018	<0.000203				
2/14/2018			<0.000203		
2/15/2018		<0.000203		<0.005	
5/22/2018	<0.000203		<0.000203		
5/24/2018		<0.000203		<0.005	
6/12/2018	<0.000203				
10/17/2018	<0.000203				
11/19/2018	<0.000203	<0.000203		<0.005	
11/20/2018			<0.000203		
3/12/2019					<0.000203
4/10/2019	<0.000203				
5/14/2019	<0.000203				
5/15/2019		<0.000203	<0.000203	<0.005	
10/8/2019	<0.000203				
10/9/2019		<0.000203		<0.005	
10/10/2019			0.00145 (J)		<0.000203
10/16/2019	<0.000203				
4/6/2020	<0.000203		<0.000203	<0.005	<0.000203
4/8/2020		<0.000203			
7/13/2020	<0.000203		<0.000203	<0.005	<0.000203
7/14/2020		<0.000203			
2/22/2021	<0.000203				
2/23/2021		<0.000203			
2/24/2021			<0.000203	0.000178 (J)	<0.000203
7/12/2021	<0.000203				
7/20/2021		8E-05 (J)		0.00023	<0.000203
7/21/2021			<0.000203		
1/25/2022	<0.000203				
2/1/2022		<0.000203	<0.000203	0.0003	<0.000203

Time Series

Constituent: Lead (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.000203		<0.000203	0.000185 (J)	<0.000203
7/6/2022		<0.000203			
2/20/2023	<0.000203				
2/21/2023			<0.000203		
2/22/2023		0.000155 (J)		0.000214	<0.000203
8/15/2023		0.000201 (J)	<0.000203		
8/16/2023				0.000531	0.000104 (J)
8/22/2023	<0.000203				

Time Series

Constituent: Lead (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.000203	<0.000203	<0.000203		
4/27/2016				<0.000203	<0.000203
6/20/2016	<0.000203		<0.000203		
6/21/2016				<0.000203	<0.000203
6/22/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016		<0.000203	<0.000203		
8/24/2016	<0.000203	<0.000203	<0.000203		
10/3/2016	<0.000203		<0.000203		
10/4/2016		<0.000203			
10/26/2016	<0.000203	<0.000203	<0.000203		
11/21/2016	<0.000203	<0.000203	<0.000203		
1/17/2017	<0.000203				
1/18/2017		<0.000203	<0.000203		
3/22/2017	<0.000203	<0.000203	<0.000203		
4/18/2017	<0.000203	<0.000203	<0.000203		
5/31/2017	<0.000203	<0.000203	<0.000203		
10/12/2017				<0.000203	<0.000203
10/13/2017				<0.000203	<0.000203
10/14/2017				<0.000203	<0.000203
10/15/2017				<0.000203	<0.000203
10/16/2017				<0.000203	<0.000203
10/17/2017				<0.000203	<0.000203
2/13/2018	<0.000203	<0.000203	<0.000203		
2/14/2018				<0.000203	<0.000203
5/22/2018	<0.000203				
5/23/2018			<0.000203	<0.000203	<0.000203
5/24/2018		<0.000203			
6/12/2018	<0.000203	<0.000203	<0.000203		
10/17/2018	<0.000203	0.00102 (J)	<0.000203		
11/19/2018	<0.000203	0.00692 (o)	<0.000203		
11/20/2018				<0.000203	<0.000203
4/10/2019	<0.000203	<0.000203	<0.000203		
5/14/2019	<0.000203	<0.000203	<0.000203		
5/15/2019				<0.000203	<0.000203
10/8/2019	<0.000203	<0.000203		<0.000203	
10/9/2019					<0.000203
10/10/2019			<0.000203		
10/16/2019	<0.000203	0.00108 (J)	<0.000203		
4/6/2020	<0.000203	<0.000203	<0.000203		
4/8/2020				<0.000203	<0.000203
7/13/2020	<0.000203	<0.000203			
7/14/2020			<0.000203	<0.000203	
7/15/2020					<0.000203
2/22/2021	<0.000203	8.8E-05 (J)	<0.000203		
2/23/2021				<0.000203	<0.000203
7/12/2021	<0.000203	8E-05 (J)	<0.000203		
7/20/2021				<0.000203	9E-05 (J)
1/25/2022	<0.000203	<0.000203	<0.000203		
1/31/2022				<0.000203	
2/1/2022					9E-05 (J)
7/5/2022	<0.000203	7.3E-05 (J)	<0.000203		

Time Series

Constituent: Lead (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.000203	0.000109 (J)
2/20/2023	<0.000203	<0.000203			
2/21/2023			<0.000203	<0.000203	8.8E-05 (J)
8/15/2023				<0.000203	0.000178 (J)
8/22/2023	<0.000203	0.000105 (J)	0.000136 (J)		

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.0264 (J)		0.212		
4/27/2016		0.435			
4/28/2016				0.0735	
6/20/2016	0.0246 (J)				
6/22/2016			0.232	0.118	
6/23/2016		0.285			
8/8/2016	0.0229 (J)				
8/9/2016			0.204		
8/10/2016		0.231		0.0805	
8/24/2016	0.0236 (J)				
10/3/2016	0.0229 (J)				
10/4/2016			0.198		
10/5/2016		0.231		0.0757	
10/26/2016	0.0227 (J)				
11/21/2016	0.0236 (J)	0.236	0.206		
11/22/2016				0.0828	
1/17/2017	0.0228 (J)	0.3	0.295		
1/18/2017				0.125	
3/21/2017		0.218	0.234	0.093	
3/22/2017	0.0238 (J)				
4/18/2017	0.0242 (J)				
5/30/2017	0.0229 (J)		0.23		
5/31/2017		0.194		0.0787	
2/13/2018	0.0233 (J)				
2/14/2018			0.233		
2/15/2018		0.23		0.104	
5/22/2018	0.0263 (J)		0.24		
5/24/2018		0.192		0.0819	
6/12/2018	0.0251 (J)				
10/17/2018	0.025 (J)				
11/19/2018	0.0241	0.211		0.0816	
11/20/2018			0.248		
3/12/2019					0.275
4/10/2019	0.0285				
5/14/2019	0.026 (J)				
5/15/2019		0.23	0.251	0.0736	
10/8/2019	0.0268				
10/9/2019		0.202		0.0838	
10/10/2019			0.275		0.297
10/16/2019	0.0263				
4/6/2020	0.0278		0.282	0.0786	0.298
4/8/2020		0.23			
7/13/2020	0.028		0.277	0.0784	0.294
7/14/2020		0.255			
2/22/2021	0.0301				
2/23/2021		0.223			
2/24/2021			0.3	0.0949	0.345
7/12/2021	0.0266				
7/20/2021		0.196		0.0769	0.33
7/21/2021			0.271		
1/25/2022	0.0239				
2/1/2022		0.157	0.223	0.0656	0.278

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.0274		0.233	0.0659	0.31
7/6/2022		0.172			
2/20/2023	0.0241				
2/21/2023			0.204		
2/22/2023		0.149		0.0615	0.279
8/15/2023		0.153	0.197		
8/16/2023				0.0612	0.28
8/22/2023	0.0225				

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	0.0353 (J)	0.0964	0.0528		
4/27/2016				0.163	0.171
6/20/2016	0.0583		0.0554		
6/21/2016				0.171	0.181
6/22/2016		0.156			
8/8/2016	0.0627				
8/9/2016		0.122	0.0452 (J)		
8/24/2016	0.0651	0.138	0.0488 (J)		
10/3/2016	0.0622		0.0476 (J)		
10/4/2016		0.0966			
10/26/2016	0.0293 (J)	0.134	0.049 (J)		
11/21/2016	0.0667	0.167	0.0477 (J)		
1/17/2017	0.0636				
1/18/2017		0.237	0.045 (J)		
3/22/2017	0.0464 (J)	0.203	0.0493 (J)		
4/18/2017	0.0446 (J)	0.0764	0.0494 (J)		
5/31/2017	0.0496 (J)	0.218	0.0501		
10/12/2017				0.134	0.182
10/13/2017				0.127	0.189
10/14/2017				0.112	0.177
10/15/2017				0.129	0.191
10/16/2017				0.122	0.189
10/17/2017				0.122	0.184
2/13/2018	0.0615	0.0964	0.0446 (J)		
2/14/2018				0.131	0.183
5/22/2018	0.0465 (J)				
5/23/2018			0.0513	0.129	0.194
5/24/2018		0.145			
6/12/2018	0.0472 (J)	0.194	0.0511		
10/17/2018	0.0633	0.384	0.0532		
11/19/2018	0.0584	0.323	0.0467		
11/20/2018				0.12	0.181
4/10/2019	0.0574	0.0905	0.0504		
5/14/2019	0.0445	0.0828	0.0485		
5/15/2019				0.127	0.16
10/8/2019	0.0677	0.419		0.131	
10/9/2019					0.163
10/10/2019			0.054		
10/16/2019	0.0661	0.337	0.052		
4/6/2020	0.0496	0.0689	0.0519		
4/8/2020				0.117	0.149
7/13/2020	0.0615	0.256			
7/14/2020			0.0543	0.103	
7/15/2020					0.152
2/22/2021	0.0625	0.126	0.0558		
2/23/2021				0.131	0.166
7/12/2021	0.0495	0.0808	0.0533		
7/20/2021				0.096	0.151
1/25/2022	0.051	0.077	0.0433		
1/31/2022				0.0907	
2/1/2022					0.124
7/5/2022	0.0469	0.251	0.0566		

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.0926	0.132
2/20/2023	0.0412	0.0649			
2/21/2023			0.0424	0.0932	0.12
8/15/2023				0.0977	0.117
8/22/2023	0.0404	0.316	0.0416		

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.0005		<0.0005		
4/27/2016		<0.0005			
4/28/2016				<0.0005	
6/20/2016	<0.0005				
6/22/2016			<0.0005	<0.0005	
6/23/2016		<0.0005			
8/8/2016	<0.0005				
8/9/2016			<0.0005		
8/10/2016		<0.0005		<0.0005	
8/24/2016	<0.0005				
10/3/2016	<0.0005				
10/4/2016			<0.0005		
10/5/2016		<0.0005		<0.0005	
10/26/2016	<0.0005				
11/21/2016	<0.0005	<0.0005	<0.0005		
11/22/2016				<0.0005	
1/17/2017	<0.0005	<0.0005	<0.0005		
1/18/2017				<0.0005	
3/21/2017		<0.0005	<0.0005	<0.0005	
3/22/2017	<0.0005				
4/18/2017	<0.0005				
5/30/2017	<0.0005		<0.0005		
5/31/2017		<0.0005		<0.0005	
2/13/2018	<0.0005				
2/14/2018			<0.0005		
2/15/2018		<0.0005		<0.0005	
5/22/2018	<0.0005		<0.0005		
5/24/2018		<0.0005		<0.0005	
6/12/2018	<0.0005				
10/17/2018	<0.0005				
11/19/2018	<0.0005	<0.0005		<0.0005	
11/20/2018			<0.0005		
3/12/2019					<0.0005
4/10/2019	<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		<0.0005	
10/10/2019			<0.0005		<0.0005
10/16/2019	<0.0005				
4/6/2020	<0.0005		<0.0005	<0.0005	<0.0005
4/8/2020		<0.0005			
7/13/2020	<0.0005		<0.0005	<0.0005	<0.0005
7/14/2020		<0.0005			
2/22/2021	<0.0005				
2/23/2021		<0.0005			
2/24/2021			<0.0005	<0.0005	<0.0005
7/12/2021	<0.0005				
7/20/2021		<0.0005		<0.0005	<0.0005
7/21/2021			<0.0005		
1/25/2022	<0.0005				
2/1/2022		<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.0005		<0.0005	<0.0005	<0.0005
7/6/2022		<0.0005			
2/20/2023	<0.0005				
2/21/2023			<0.0005		
2/22/2023		<0.0005		<0.0005	<0.0005
8/15/2023		<0.0005	<0.0005		
8/16/2023				<0.0005	<0.0005
8/22/2023	<0.0005				

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.0005	<0.0005	<0.0005		
4/27/2016				<0.0005	<0.0005
6/20/2016	<0.0005		<0.0005		
6/21/2016				<0.0005	<0.0005
6/22/2016		<0.0005			
8/8/2016	<0.0005				
8/9/2016		<0.0005	<0.0005		
8/24/2016	<0.0005	<0.0005	<0.0005		
10/3/2016	<0.0005		<0.0005		
10/4/2016		<0.0005			
10/26/2016	<0.0005	<0.0005	<0.0005		
11/21/2016	<0.0005	<0.0005	<0.0005		
1/17/2017	<0.0005				
1/18/2017		<0.0005	<0.0005		
3/22/2017	<0.0005	<0.0005	<0.0005		
4/18/2017	<0.0005	<0.0005	<0.0005		
5/31/2017	<0.0005	<0.0005	<0.0005		
10/12/2017				<0.0005	<0.0005
10/13/2017				<0.0005	<0.0005
10/14/2017				<0.0005	<0.0005
10/15/2017				<0.0005	<0.0005
10/16/2017				<0.0005	<0.0005
10/17/2017				<0.0005	<0.0005
2/13/2018	<0.0005	<0.0005	<0.0005		
2/14/2018				<0.0005	<0.0005
5/22/2018	<0.0005				
5/23/2018			<0.0005	<0.0005	<0.0005
5/24/2018		<0.0005			
6/12/2018	<0.0005	<0.0005	<0.0005		
10/17/2018	<0.0005	<0.0005	<0.0005		
11/19/2018	<0.0005	<0.0005	<0.0005		
11/20/2018				<0.0005	<0.0005
4/10/2019	<0.0005	<0.0005	<0.0005		
5/14/2019	<0.0005	<0.0005	<0.0005		
5/15/2019				<0.0005	<0.0005
10/8/2019	<0.0005	<0.0005		<0.0005	
10/9/2019					<0.0005
10/10/2019			<0.0005		
10/16/2019	<0.0005	<0.0005	<0.0005		
4/6/2020	<0.0005	<0.0005	<0.0005		
4/8/2020				<0.0005	<0.0005
7/13/2020	<0.0005	<0.0005			
7/14/2020			<0.0005	<0.0005	
7/15/2020					<0.0005
2/22/2021	<0.0005	<0.0005	<0.0005		
2/23/2021				<0.0005	<0.0005
7/12/2021	<0.0005	<0.0005	<0.0005		
7/20/2021				<0.0005	<0.0005
1/25/2022	<0.0005	<0.0005	<0.0005		
1/31/2022				<0.0005	
2/1/2022					<0.0005
7/5/2022	<0.0005	<0.0005	<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.0005	<0.0005
2/20/2023	<0.0005	<0.0005			
2/21/2023			<0.0005	<0.0005	<0.0005
8/15/2023				<0.0005	<0.0005
8/22/2023	<0.0005	<0.0005	<0.0005		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.01015		<0.01015		
4/27/2016		<0.01015			
4/28/2016				<0.01015	
6/20/2016	<0.01015				
6/22/2016			<0.01015	<0.01015	
6/23/2016		<0.01015			
8/8/2016	<0.01015				
8/9/2016			<0.01015		
8/10/2016		<0.01015		<0.01015	
8/24/2016	<0.01015				
10/3/2016	<0.01015				
10/4/2016			<0.01015		
10/5/2016		<0.01015		<0.01015	
10/26/2016	<0.01015				
11/21/2016	<0.01015	<0.01015	<0.01015		
11/22/2016				<0.01015	
1/17/2017	<0.01015	<0.01015	<0.01015		
1/18/2017				<0.01015	
3/21/2017		<0.01015	<0.01015	<0.01015	
3/22/2017	<0.01015				
4/18/2017	<0.01015				
5/30/2017	<0.01015		<0.01015		
5/31/2017		<0.01015		<0.01015	
2/13/2018	<0.01015				
2/14/2018			<0.01015		
2/15/2018		<0.01015		<0.01015	
5/22/2018	<0.01015		<0.01015		
5/24/2018		<0.01015		<0.01015	
6/12/2018	<0.01015				
10/17/2018	<0.01015				
11/19/2018	<0.01015	<0.01015		<0.01015	
11/20/2018			<0.01015		
3/12/2019					<0.01015
4/10/2019	<0.01015				
5/14/2019	<0.01015				
5/15/2019		<0.01015	<0.01015	<0.01015	
10/8/2019	<0.01015				
10/9/2019		<0.01015		<0.01015	
10/10/2019			<0.01015		<0.01015
10/16/2019	<0.01015				
4/6/2020	<0.01015		<0.01015	<0.01015	<0.01015
4/8/2020		<0.01015			
7/13/2020	<0.01015		<0.01015	<0.01015	<0.01015
7/14/2020		<0.01015			
2/22/2021	<0.01015				
2/23/2021		<0.01015			
2/24/2021			0.00148	8.8E-05 (J)	0.00174
7/12/2021	<0.01015				
7/20/2021		8E-05 (J)		0.00017 (J)	0.00188
7/21/2021			0.0013		
1/25/2022	<0.01015				
2/1/2022		<0.01015	0.00181	0.00019 (J)	0.00215

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.01015		0.00151	0.000402	0.00234
7/6/2022		<0.01015			
2/20/2023	<0.01015				
2/21/2023			0.00138		
2/22/2023		0.000111 (J)		0.000131 (J)	0.00304
8/15/2023		<0.01015	<0.01015		
8/16/2023				<0.01015	<0.01015
8/22/2023	<0.01015				

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.01015	<0.01015	<0.01015		
4/27/2016				<0.01015	<0.01015
6/20/2016	<0.01015		<0.01015		
6/21/2016				<0.01015	<0.01015
6/22/2016		<0.01015			
8/8/2016	<0.01015				
8/9/2016		<0.01015	<0.01015		
8/24/2016	<0.01015	<0.01015	<0.01015		
10/3/2016	<0.01015		<0.01015		
10/4/2016		<0.01015			
10/26/2016	<0.01015	<0.01015	<0.01015		
11/21/2016	<0.01015	<0.01015	<0.01015		
1/17/2017	<0.01015				
1/18/2017		<0.01015	<0.01015		
3/22/2017	<0.01015	<0.01015	<0.01015		
4/18/2017	<0.01015	<0.01015	<0.01015		
5/31/2017	<0.01015	<0.01015	<0.01015		
10/12/2017				<0.01015	<0.01015
10/13/2017				<0.01015	<0.01015
10/14/2017				<0.01015	<0.01015
10/15/2017				<0.01015	<0.01015
10/16/2017				<0.01015	<0.01015
10/17/2017				<0.01015	<0.01015
2/13/2018	<0.01015	<0.01015	<0.01015		
2/14/2018				<0.01015	<0.01015
5/22/2018	<0.01015				
5/23/2018			<0.01015	<0.01015	<0.01015
5/24/2018		<0.01015			
6/12/2018	<0.01015	<0.01015	<0.01015		
10/17/2018	<0.01015	<0.01015	<0.01015		
11/19/2018	<0.01015	<0.01015	<0.01015		
11/20/2018				<0.01015	<0.01015
4/10/2019	<0.01015	<0.01015	<0.01015		
5/14/2019	<0.01015	<0.01015	<0.01015		
5/15/2019				<0.01015	<0.01015
10/8/2019	<0.01015	<0.01015		<0.01015	
10/9/2019					<0.01015
10/10/2019			<0.01015		
10/16/2019	<0.01015	<0.01015	<0.01015		
4/6/2020	<0.01015	<0.01015	<0.01015		
4/8/2020				<0.01015	<0.01015
7/13/2020	<0.01015	<0.01015			
7/14/2020			<0.01015	<0.01015	
7/15/2020					<0.01015
2/22/2021	<0.01015	<0.01015	0.000131 (J)		
2/23/2021				0.00107	0.0129
7/12/2021	<0.01015	<0.01015	0.00014 (J)		
7/20/2021				0.00086	0.00033
1/25/2022	<0.01015	8E-05 (J)	0.00011 (J)		
1/31/2022				0.00093	
2/1/2022					0.00031
7/5/2022	<0.01015	<0.01015	0.000108 (J)		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.000846	0.000351
2/20/2023	<0.01015	<0.01015			
2/21/2023			0.00015 (J)	0.00103	0.000338
8/15/2023				<0.01015	<0.01015
8/22/2023	<0.01015	<0.01015	<0.01015		

Time Series

Constituent: pH (SU) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	5.2		6.49		
4/27/2016		5.8			
4/28/2016				5.78	
6/20/2016	5.18				
6/22/2016			6.51	6.41	
6/23/2016		6.38			
8/8/2016	5.12				
8/9/2016			6.49		
8/10/2016		6.47		5.82	
10/3/2016	5.21 (D)				
10/4/2016			6.51 (D)		
10/5/2016		6.42 (D)		5.82 (D)	
10/26/2016	5.2				
11/21/2016	5.19 (D)	6.38	6.48		
11/22/2016				5.86	
1/17/2017	5.17 (D)	6.35	6.46		
1/18/2017				5.9	
3/21/2017		6.38	6.47	5.85	
3/22/2017	5.2 (D)				
4/18/2017	5.2				
5/30/2017	5.14 (D)		6.48		
5/31/2017		6.4		5.84	
8/23/2017	5.12 (D)	6.33	6.48	5.91	
2/13/2018	5.18				
2/14/2018			6.6		
2/15/2018		6.26		5.98	
5/22/2018	5.2		6.54		
5/24/2018		6.45		5.86	
6/12/2018	5.15				
10/17/2018	5.12				
11/19/2018	5.09	6.3		5.88	
11/20/2018			6.61		
3/12/2019					6.7
4/10/2019	5.11				
5/14/2019	5.19				
5/15/2019		6.37	6.62	5.82	
10/8/2019	5.12				
10/9/2019		6.5		5.85	
10/10/2019			6.69		6.77
10/16/2019	5.16				
4/6/2020	5.21		6.72	5.81	6.79
4/8/2020		6.36			
7/13/2020	5.14		6.71	5.62	6.61
7/14/2020		6.42			
2/22/2021	5.06				
2/23/2021		6.45			
2/24/2021			6.67	5.83	6.83
7/12/2021	5.13				
7/20/2021		6.46		5.53	6.84
7/21/2021			6.74		
1/25/2022	5.11				
2/1/2022		6.62	6.83	5.64	6.68

Time Series

Constituent: pH (SU) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	5.01		6.75	5.82	6.92
7/6/2022		6.64			
2/20/2023	5.07				
2/21/2023			6.77		
2/22/2023		6.67		5.72	6.95
8/15/2023		7.53	7.62		
8/16/2023				5.81	6.91
8/22/2023	4.92				

Time Series

Constituent: pH (SU) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	5.94	5.56	6.22		
4/27/2016				6.6	6.55
6/20/2016	5.96		6.21		
6/21/2016				6.62	6.47
6/22/2016		5.57			
8/8/2016	5.88				
8/9/2016		5.67	6.11		
8/24/2016		5.63	6.11		
10/3/2016	5.91 (D)		6.13 (D)		
10/4/2016		5.69 (D)			
10/26/2016	5.84	5.56	6.12		
11/21/2016	5.82 (D)	5.42 (D)	6.09 (D)		
1/17/2017	5.87 (D)				
1/18/2017		5.11 (D)	6.09 (D)		
3/22/2017	6.01 (D)	4.52 (D)	6.15 (D)		
4/18/2017	6.02	5.84	6.19		
5/31/2017	5.85 (D)	4.56 (D)	6.13 (D)		
8/23/2017	5.89 (D)	4.77 (D)	6.12 (D)		
10/12/2017				6.64	6.5
10/13/2017				6.64	6.51
10/14/2017				6.66	6.53
10/15/2017				6.67	6.53
10/16/2017				6.67	6.54
10/17/2017				6.66	6.54
11/16/2017				6.62	6.51
2/13/2018	6.21	5.67	6.22		
2/14/2018				6.67	6.55
5/22/2018	6.04				
5/23/2018			6.21	6.63	6.52
5/24/2018		5.19			
6/12/2018	5.95	4.79	6.16		
10/17/2018	5.9	4.75	6.12		
11/19/2018	6.03	3.77 (Eo)	6.16		
11/20/2018				6.61	6.58
4/10/2019	6.1	5.54	6.14		
5/14/2019	6.07	5.71	6.23		
5/15/2019				6.61	6.6
10/8/2019	5.96	4.98		6.52	
10/9/2019					6.67
10/10/2019			6.15		
10/16/2019	5.98	4.51	6.19		
4/6/2020	6.21	5.91	6.35		
4/8/2020				6.64	6.7
7/13/2020	5.84	5.16			
7/14/2020			6.2	6.52	
7/15/2020					6.71
2/22/2021	6.1	5.59	6.19		
2/23/2021				6.7	6.73
7/12/2021	6.16	5.86	6.06		
7/20/2021				6.58	6.64
1/25/2022	6.22	5.9	6.3		
1/31/2022				6.48	

Time Series

Constituent: pH (SU) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
2/1/2022					6.77
7/5/2022	6.15	5.34	6.12		
7/6/2022				6.46	6.72
2/20/2023	6.24	6.01			
2/21/2023			6.35	6.72	6.75
8/15/2023				7.47	7.58
8/22/2023	5.81	5.04	6.28		

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	0.00261 (J)		<0.001015		
4/27/2016		<0.001015			
4/28/2016				<0.001015	
6/20/2016	0.00242 (J)				
6/22/2016			<0.001015	<0.001015	
6/23/2016		<0.001015			
8/8/2016	0.00253 (J)				
8/9/2016			<0.001015		
8/10/2016		<0.001015		<0.001015	
8/24/2016	<0.01				
10/3/2016	0.00211 (J)				
10/4/2016			<0.001015		
10/5/2016		<0.001015		<0.001015	
10/26/2016	<0.01				
11/21/2016	<0.01	<0.001015	<0.001015		
11/22/2016				<0.001015	
1/17/2017	<0.01	<0.001015	<0.001015		
1/18/2017				<0.001015	
3/21/2017		<0.001015	<0.001015	<0.001015	
3/22/2017	0.0022 (J)				
4/18/2017	0.0027 (J)				
5/30/2017	0.00316 (J)		<0.001015		
5/31/2017		<0.001015		<0.001015	
2/13/2018	0.00211 (J)				
2/14/2018			<0.001015		
2/15/2018		0.00272 (J)		<0.001015	
5/22/2018	0.00372 (J)		<0.001015		
5/24/2018		<0.001015		<0.001015	
6/12/2018	0.00409 (J)				
10/17/2018	<0.01				
11/19/2018	<0.01	<0.001015		<0.001015	
11/20/2018			<0.001015		
3/12/2019					<0.001015
4/10/2019	0.00471 (J)				
5/14/2019	0.00316 (J)				
5/15/2019		0.00289 (J)	<0.001015	<0.001015	
10/8/2019	<0.01				
10/9/2019		<0.001015		<0.001015	
10/10/2019			<0.001015		<0.001015
10/16/2019	<0.01				
4/6/2020	0.00275 (J)		<0.001015	<0.001015	<0.001015
4/8/2020		<0.001015			
7/13/2020	0.00245 (J)		<0.001015	<0.001015	<0.001015
7/14/2020		0.00273 (J)			
2/22/2021	0.00241				
2/23/2021		0.00217			
2/24/2021			<0.001015	<0.001015	<0.001015
7/12/2021	0.0028				
7/20/2021		0.00098 (J)		<0.001015	<0.001015
7/21/2021			<0.001015		
1/25/2022	0.00216				
2/1/2022		<0.001015	<0.001015	0.00051 (J)	<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	0.00269		<0.001015	<0.001015	<0.001015
7/6/2022		<0.001015			
2/20/2023	0.00258				
2/21/2023			<0.001015		
2/22/2023		0.000611 (J)		<0.001015	<0.001015
8/15/2023		<0.001015	<0.001015		
8/16/2023				<0.001015	<0.001015
8/22/2023	0.00151				

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.001015	<0.01	<0.01		
4/27/2016				0.00445 (J)	<0.001015
6/20/2016	<0.001015		<0.01		
6/21/2016				<0.001015	<0.001015
6/22/2016		<0.01			
8/8/2016	<0.001015				
8/9/2016		<0.01	<0.01		
8/24/2016	<0.001015	<0.01	<0.01		
10/3/2016	<0.001015		<0.01		
10/4/2016		<0.01			
10/26/2016	<0.001015	<0.01	<0.01		
11/21/2016	<0.001015	<0.01	<0.01		
1/17/2017	<0.001015				
1/18/2017		<0.01	<0.01		
3/22/2017	<0.001015	0.0141	<0.01		
4/18/2017	<0.001015	0.0158	<0.01		
5/31/2017	<0.001015	0.00632 (J)	<0.01		
10/12/2017				<0.001015	<0.001015
10/13/2017				<0.001015	<0.001015
10/14/2017				<0.001015	<0.001015
10/15/2017				<0.001015	<0.001015
10/16/2017				<0.001015	<0.001015
10/17/2017				<0.001015	<0.001015
2/13/2018	<0.001015	0.0209	0.00403 (J)		
2/14/2018				<0.001015	<0.001015
5/22/2018	<0.001015				
5/23/2018			<0.01	<0.001015	<0.001015
5/24/2018		0.00918 (J)			
6/12/2018	<0.001015	0.00836 (J)	<0.01		
10/17/2018	<0.001015	<0.01	<0.01		
11/19/2018	<0.001015	0.00439 (J)	0.00436 (J)		
11/20/2018				<0.001015	<0.001015
4/10/2019	0.00322 (J)	0.0113	<0.01		
5/14/2019	<0.001015	0.0119	0.00201 (J)		
5/15/2019				<0.001015	<0.001015
10/8/2019	<0.001015	0.00256 (J)		<0.001015	
10/9/2019					<0.001015
10/10/2019			<0.01		
10/16/2019	<0.001015	0.00286 (J)	<0.01		
4/6/2020	<0.001015	0.01	0.00284 (J)		
4/8/2020				<0.001015	<0.001015
7/13/2020	<0.001015	0.0134			
7/14/2020			<0.01	<0.001015	
7/15/2020					<0.001015
2/22/2021	<0.001015	0.0181	0.00222		
2/23/2021				<0.001015	<0.001015
7/12/2021	<0.001015	0.0133	0.00155		
7/20/2021				<0.001015	<0.001015
1/25/2022	<0.001015	0.0154	0.00224		
1/31/2022				<0.001015	
2/1/2022					<0.001015
7/5/2022	<0.001015	0.0205	0.000961 (J)		

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				0.000677 (J)	<0.001015
2/20/2023	<0.001015	0.0123			
2/21/2023			0.00266	<0.001015	<0.001015
8/15/2023				<0.001015	<0.001015
8/22/2023	<0.001015	0.0147	0.00148		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	1490		1750		
4/27/2016		1250			
4/28/2016				2360	
6/20/2016	1420				
6/22/2016			1720	1960	
6/23/2016		1010			
8/8/2016	1460				
8/9/2016			1740		
8/10/2016		992		2300	
8/24/2016	1450				
10/3/2016	1460				
10/4/2016			1750		
10/5/2016		1010		2330	
10/26/2016	1330				
11/21/2016	1420	834	1690		
11/22/2016				2220	
1/17/2017	1350	700	1670		
1/18/2017				1950	
3/21/2017		660	1900	2400	
3/22/2017	1500				
4/18/2017	1300				
5/30/2017	1400		1700		
5/31/2017		700		2200	
8/23/2017	1500	700	1700	2100	
5/22/2018	2100 (o)		2200		
5/24/2018		560		2300	
6/12/2018	1500				
10/17/2018	1400				
11/19/2018	1300	720		2100	
11/20/2018			1400		
3/12/2019					1370
4/10/2019	1700				
5/14/2019	1560				
5/15/2019		780	1510	2800	
10/8/2019	1540				
10/9/2019		748		2550	
10/10/2019			719		1490
10/16/2019	1680				
4/6/2020	1530		1400	2580	1360
4/8/2020		658			
7/13/2020	1450		1300	2610	1280
7/14/2020		845			
2/22/2021	1400				
2/23/2021		747			
2/24/2021			1330	2280	1220
7/12/2021	1560				
7/20/2021		665		2500	1220
7/21/2021			1420		
1/25/2022	1430				
2/1/2022		707	1350	2230	1220
7/5/2022	1600		1250	2430	1300
7/6/2022		635			

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	1520				
2/21/2023			1290		
2/22/2023		581		2440	1340
8/15/2023		631	1280		
8/16/2023				2320	1300
8/22/2023	1560				

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	745	1890	2260		
4/27/2016				1050	1550
6/20/2016	964		2500		
6/21/2016				1410	1470
6/22/2016		2100			
8/8/2016	1100				
8/9/2016		2050	2750		
8/24/2016	1130	2190	2770		
10/3/2016	1140		3060		
10/4/2016		1950			
10/26/2016	1060	1980	2650		
11/21/2016	1100	2060	2720		
1/17/2017	1160				
1/18/2017		2620	2650		
3/22/2017	900	3200	2700		
4/18/2017	870	2500	2400		
5/31/2017	1100	2800	2700		
8/23/2017	920	2600	2700		
10/12/2017				1400	1400
10/13/2017				1400	1600
10/14/2017				1300	1400
10/15/2017				1300	1400
10/16/2017				1300	1400
10/17/2017				1300	1400
11/16/2017				1300	1400
5/22/2018	1200				
5/23/2018			2400	1900 (o)	2100 (o)
5/24/2018		2700			
6/12/2018	860	2500	2600		
10/17/2018	970	2700	2600		
11/19/2018	1000	3000	2400		
11/20/2018				1100	1400
4/10/2019	889	2460	2090		
5/14/2019	948	2460	2240		
5/15/2019				1510	1640
10/8/2019	1230	2950		1570	
10/9/2019					1550
10/10/2019			2690		
10/16/2019	1170	2820	3050		
4/6/2020	786	1670	1810		
4/8/2020				1270	1380
7/13/2020	843	2130			
7/14/2020			1970	1330	
7/15/2020					1410
2/22/2021	864	3040	2040		
2/23/2021				1320	1420
7/12/2021	763	2380	1930		
7/20/2021				1170	1500
1/25/2022	842	2550	1930		
1/31/2022				1370	
2/1/2022					1500
7/5/2022	819	3110	2380		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				1330	1460
2/20/2023	767	2110			
2/21/2023			1930	1450	1510
8/15/2023				1360	1480
8/22/2023	912	3140	2390		

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	<0.000203		<0.000203		
4/27/2016		<0.000203			
4/28/2016				<0.000203	
6/20/2016	<0.000203				
6/22/2016			<0.000203	<0.000203	
6/23/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016			<0.000203		
8/10/2016		<0.000203		<0.000203	
8/24/2016	<0.000203				
10/3/2016	<0.000203				
10/4/2016			<0.000203		
10/5/2016		<0.000203		<0.000203	
10/26/2016	<0.000203				
11/21/2016	<0.000203	<0.000203	<0.000203		
11/22/2016				<0.000203	
1/17/2017	<0.000203	<0.000203	<0.000203		
1/18/2017				<0.000203	
3/21/2017		<0.000203	<0.000203	<0.000203	
3/22/2017	<0.000203				
4/18/2017	<0.000203				
5/30/2017	<0.000203		<0.000203		
5/31/2017		<0.000203		<0.000203	
2/13/2018	<0.000203				
2/14/2018			<0.000203		
2/15/2018		<0.000203		<0.000203	
5/22/2018	<0.000203		<0.000203		
5/24/2018		<0.000203		<0.000203	
6/12/2018	<0.000203				
10/17/2018	<0.000203				
11/19/2018	<0.000203	<0.000203		<0.000203	
11/20/2018			<0.000203		
3/12/2019					<0.000203
4/10/2019	<0.000203				
5/14/2019	<0.000203				
5/15/2019		<0.000203	<0.000203	<0.000203	
10/8/2019	<0.000203				
10/9/2019		<0.000203		<0.000203	
10/10/2019			<0.000203		<0.000203
10/16/2019	<0.000203				
4/6/2020	<0.000203		<0.000203	<0.000203	<0.000203
4/8/2020		<0.000203			
7/13/2020	<0.000203		<0.000203	<0.000203	<0.000203
7/14/2020		<0.000203			
2/22/2021	<0.000203				
2/23/2021		<0.000203			
2/24/2021			<0.000203	<0.000203	<0.000203
7/12/2021	<0.000203				
7/20/2021		<0.000203		<0.000203	<0.000203
7/21/2021			<0.000203		
1/25/2022	<0.000203				
2/1/2022		<0.000203	<0.000203	0.0001 (J)	<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
7/5/2022	<0.000203		<0.000203	<0.000203	<0.000203
7/6/2022		<0.000203			
2/20/2023	<0.000203				
2/21/2023			<0.000203		
2/22/2023		<0.000203		0.000112 (J)	<0.000203
8/15/2023		<0.000203	<0.000203		
8/16/2023				9.7E-05 (J)	<0.000203
8/22/2023	<0.000203				

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	<0.000203	0.000205 (J)	<0.000203		
4/27/2016				<0.000203	<0.000203
6/20/2016	<0.000203		<0.000203		
6/21/2016				<0.000203	<0.000203
6/22/2016		<0.000203			
8/8/2016	<0.000203				
8/9/2016		<0.000203	<0.000203		
8/24/2016	<0.000203	<0.000203	<0.000203		
10/3/2016	<0.000203		<0.000203		
10/4/2016		<0.000203			
10/26/2016	<0.000203	0.000209 (J)	<0.000203		
11/21/2016	<0.000203	<0.000203	<0.000203		
1/17/2017	<0.000203				
1/18/2017		<0.000203	<0.000203		
3/22/2017	<0.000203	<0.000203	<0.000203		
4/18/2017	<0.000203	<0.000203	<0.000203		
5/31/2017	<0.000203	<0.000203	<0.000203		
10/12/2017				<0.000203	<0.000203
10/13/2017				<0.000203	<0.000203
10/14/2017				<0.000203	<0.000203
10/15/2017				<0.000203	<0.000203
10/16/2017				<0.000203	<0.000203
10/17/2017				<0.000203	<0.000203
2/13/2018	<0.000203	<0.000203	<0.000203		
2/14/2018				<0.000203	<0.000203
5/22/2018	<0.000203				
5/23/2018			<0.000203	<0.000203	<0.000203
5/24/2018		<0.000203			
6/12/2018	<0.000203	<0.000203	<0.000203		
10/17/2018	<0.000203	<0.000203	<0.000203		
11/19/2018	<0.000203	0.000226 (J)	<0.000203		
11/20/2018				<0.000203	<0.000203
4/10/2019	<0.000203	<0.000203	<0.000203		
5/14/2019	<0.000203	<0.000203	<0.000203		
5/15/2019				<0.000203	<0.000203
10/8/2019	<0.000203	<0.000203		<0.000203	
10/9/2019					<0.000203
10/10/2019			<0.000203		
10/16/2019	<0.000203	<0.000203	<0.000203		
4/6/2020	<0.000203	<0.000203	<0.000203		
4/8/2020				<0.000203	<0.000203
7/13/2020	<0.000203	<0.000203			
7/14/2020			<0.000203	<0.000203	
7/15/2020					<0.000203
2/22/2021	<0.000203	<0.000203	<0.000203		
2/23/2021				<0.000203	<0.000203
7/12/2021	<0.000203	<0.000203	<0.000203		
7/20/2021				<0.000203	<0.000203
1/25/2022	<0.000203	<0.000203	<0.000203		
1/31/2022				<0.000203	
2/1/2022					<0.000203
7/5/2022	<0.000203	<0.000203	<0.000203		

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				<0.000203	<0.000203
2/20/2023	<0.000203	<0.000203			
2/21/2023			<0.000203	<0.000203	<0.000203
8/15/2023				<0.000203	<0.000203
8/22/2023	<0.000203	<0.000203	<0.000203		

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
4/26/2016	2080		2800		
4/27/2016		1940			
4/28/2016				3730	
6/20/2016	2060				
6/22/2016			2550	2760	
6/23/2016		1680			
8/8/2016	2070				
8/9/2016			2860		
8/10/2016		1660		3710	
8/24/2016	2040				
10/3/2016	2110				
10/4/2016			2800		
10/5/2016		1640		3580	
10/26/2016	2000				
11/21/2016	2070	1390	2920		
11/22/2016				3400	
1/17/2017	1930	1300	2750		
1/18/2017				3360	
3/21/2017		1170	2750	3320	
3/22/2017	2060				
4/18/2017	2140				
5/30/2017	2240		2890		
5/31/2017		1210		3440	
8/23/2017	2160	1160	2760	3250	
5/22/2018	2380		2610		
5/24/2018		1100		3300	
6/12/2018	2400				
10/17/2018	2220				
11/19/2018	2360	1220		3400	
11/20/2018			2480		
3/12/2019					2440
4/10/2019	2630				
5/14/2019	2340				
5/15/2019		1230	2560	3890	
10/8/2019	2330				
10/9/2019		1120		4090	
10/10/2019			2460		2360
10/16/2019	3650 (o)				
4/6/2020	2240		2430	4060	2310
4/8/2020		1120			
7/13/2020	2240		2400	4460	2240
7/14/2020		1270			
2/22/2021	2230				
2/23/2021		1110			
2/24/2021			2370	3810	2240
7/12/2021	2210				
7/20/2021		1080		3680	2190
7/21/2021			2210		
1/25/2022	2150				
2/1/2022		1050	2200	3610	2110
7/5/2022	2100		2020	3690	2100
7/6/2022		967			

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-10	MW-11	MW-12	MW-12V
2/20/2023	2280				
2/21/2023			2160		
2/22/2023		991		3880	2240
8/15/2023		1050	2130		
8/16/2023				3780	2220
8/22/2023	2160				

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View

Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
4/25/2016	1260	2720	3300		
4/27/2016				1640	2480
6/20/2016	1620		3870		
6/21/2016				2460	2360
6/22/2016		3250			
8/8/2016	1740				
8/9/2016		3050	4140		
8/24/2016	1720	3080	4190		
10/3/2016	1800		4190		
10/4/2016		2900			
10/26/2016	1800	2940	4400		
11/21/2016	1740	3090	4230		
1/17/2017	1960				
1/18/2017		4020	4120		
3/22/2017	1510	4180	3980		
4/18/2017	1580	4440	3880		
5/31/2017	1730	3970	4210		
8/23/2017	1550	4050	3990		
10/12/2017				2460	2530
10/13/2017				2420	2740
10/14/2017				2320	2630
10/15/2017				1150	2530
10/16/2017				2320	2740
10/17/2017				2360	2650
11/16/2017				2460	2650
5/22/2018	1500				
5/23/2018			3740	2390	2750
5/24/2018		3680			
6/12/2018	1550	3820	4080		
10/17/2018	1740	4730	4250		
11/19/2018	1990	4710	3920		
11/20/2018				2090	2520
4/10/2019	1250	3680	3280		
5/14/2019	1480	3580	3130		
5/15/2019				2310	2540
10/8/2019	1840	4720		2340	
10/9/2019					2590
10/10/2019			4000		
10/16/2019	1830	4210	4060		
4/6/2020	1440	2630	2820		
4/8/2020				2230	2450
7/13/2020	1540	3650			
7/14/2020			3310	2210	
7/15/2020					2460
2/22/2021	1620	4670	3190		
2/23/2021				2320	2550
7/12/2021	1390	3510	3000		
7/20/2021				2110	2420
1/25/2022	1500	3950	3180		
1/31/2022				2140	
2/1/2022					2420
7/5/2022	1250	4220	3240		

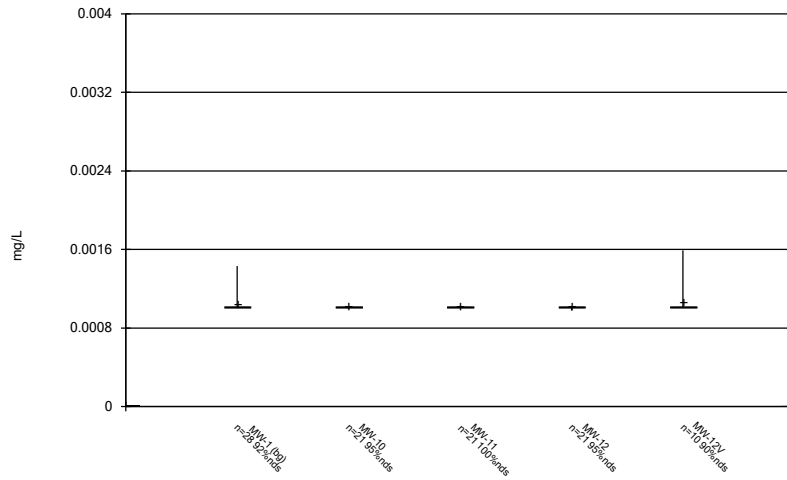
Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/2/2023 3:24 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)	MW-7	MW-8
7/6/2022				2110	2320
2/20/2023	1420	3230			
2/21/2023			3160	2220	2370
8/15/2023				2270	2410
8/22/2023	1520	4820	3780		

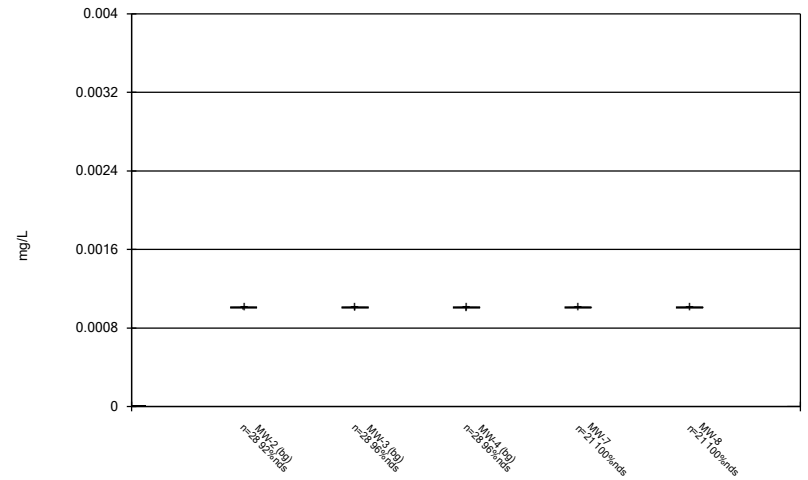
FIGURE B.

Box & Whiskers Plot



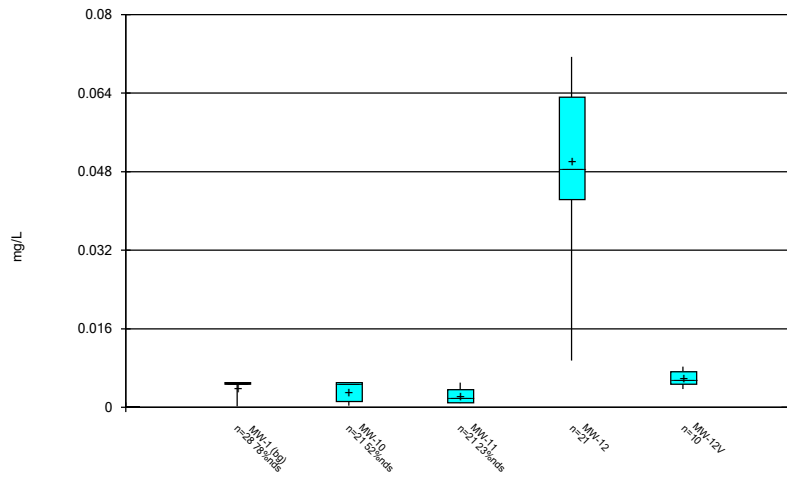
Constituent: Antimony Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



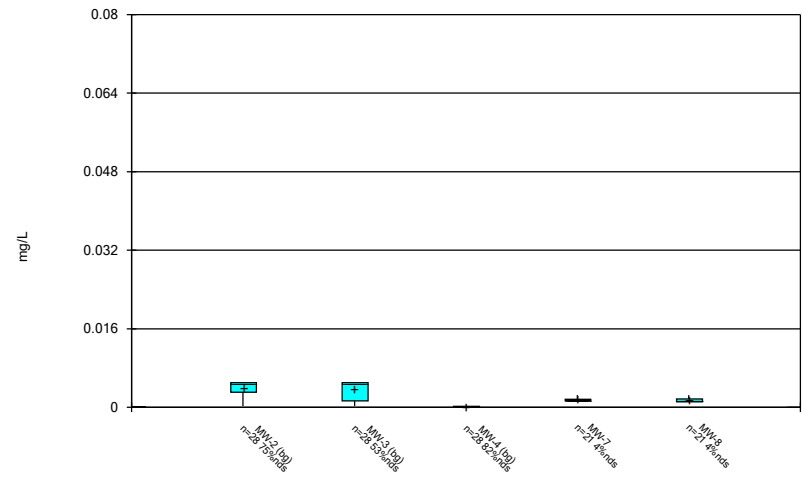
Constituent: Antimony Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



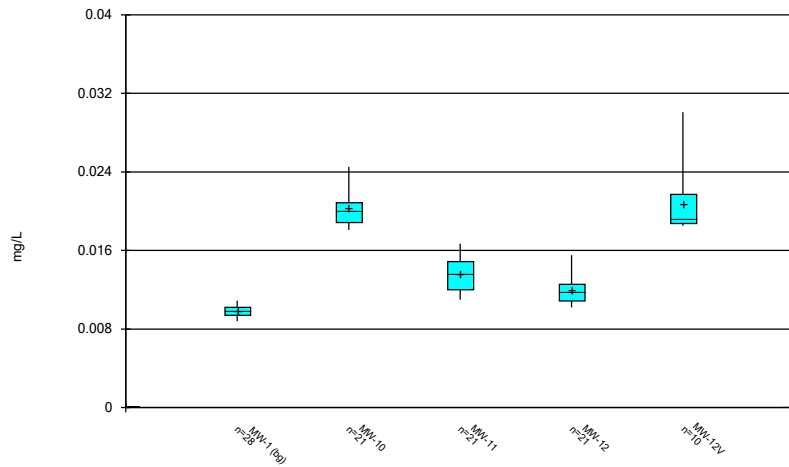
Constituent: Arsenic Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



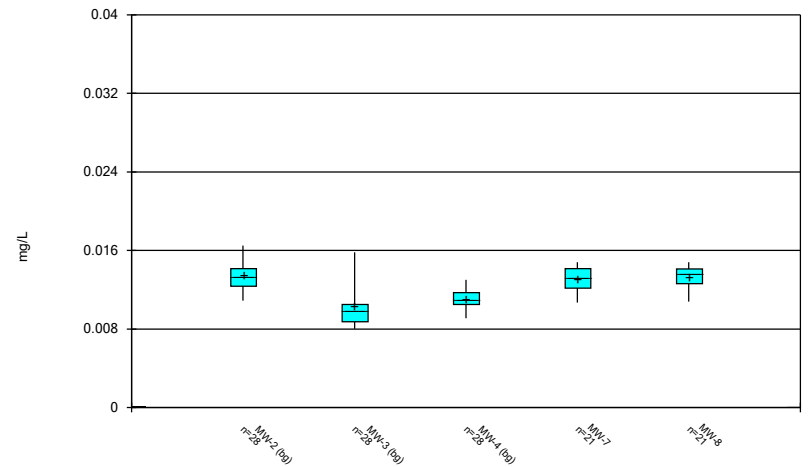
Constituent: Arsenic Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



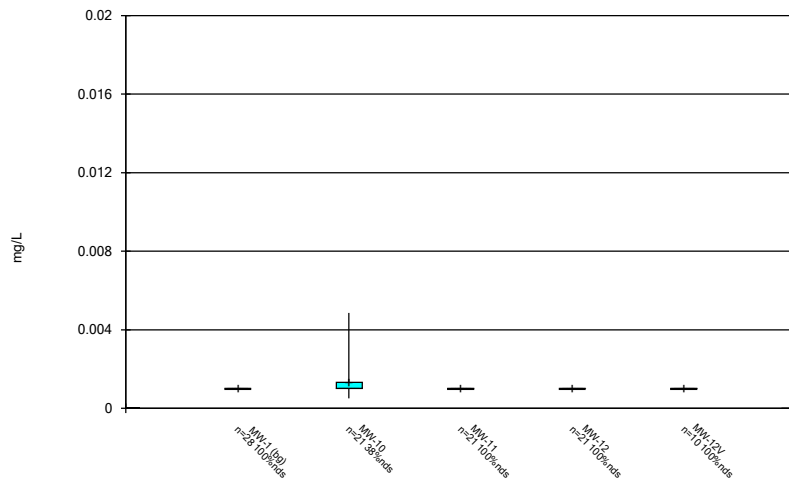
Constituent: Barium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



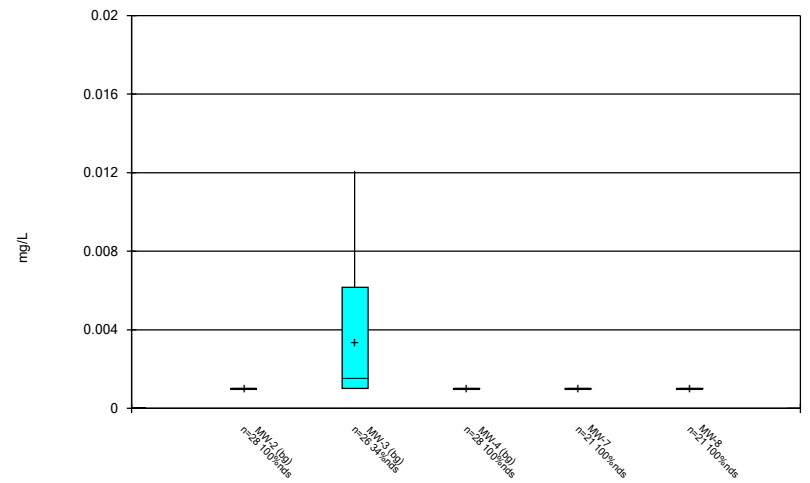
Constituent: Barium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



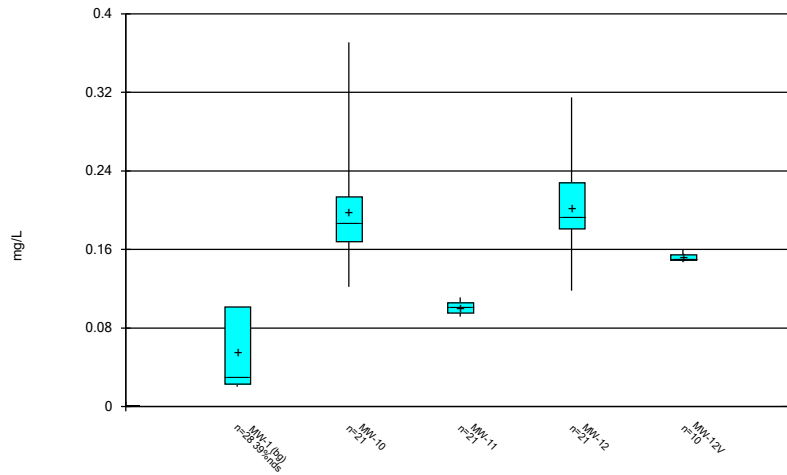
Constituent: Beryllium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



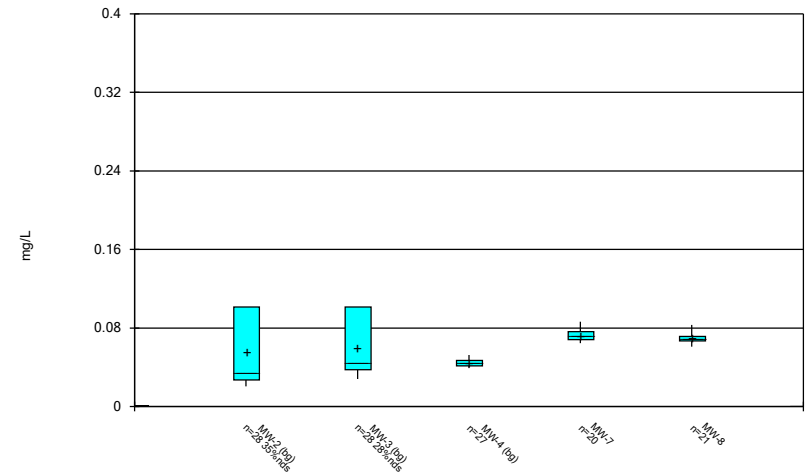
Constituent: Beryllium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



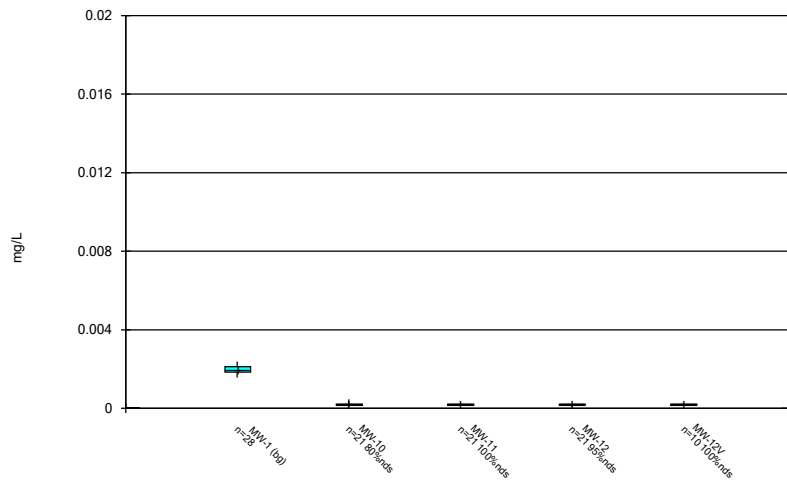
Constituent: Boron Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



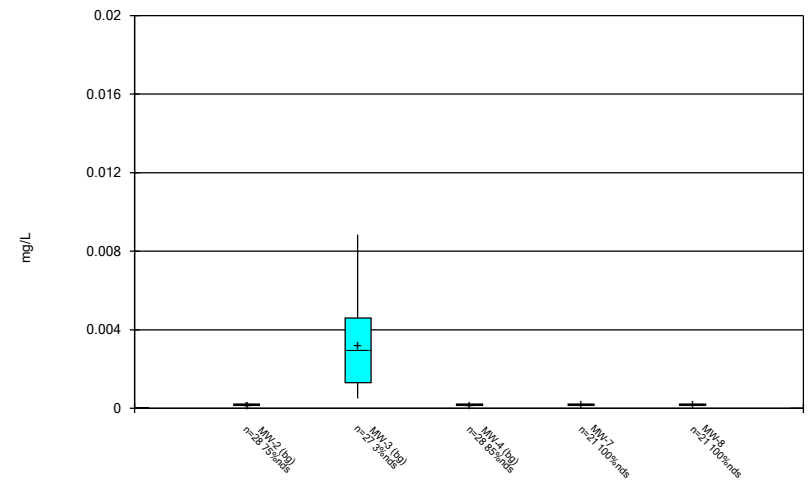
Constituent: Boron Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



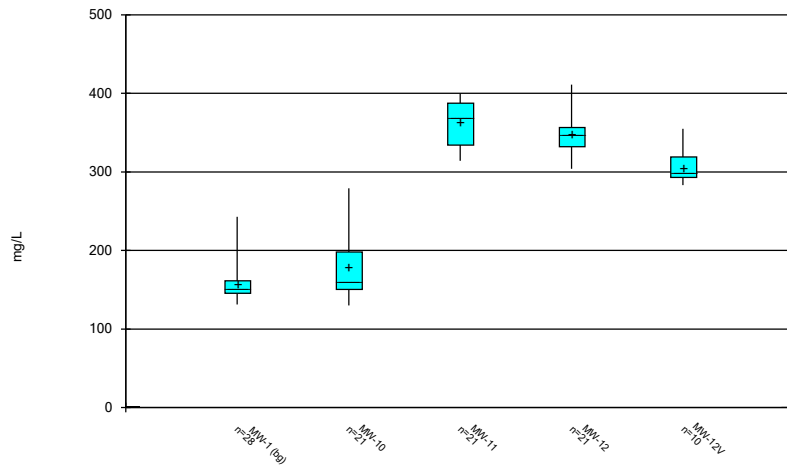
Constituent: Cadmium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



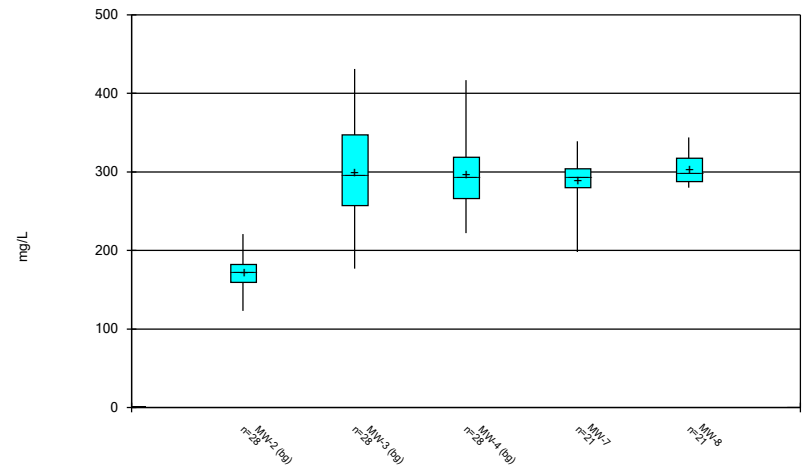
Constituent: Cadmium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



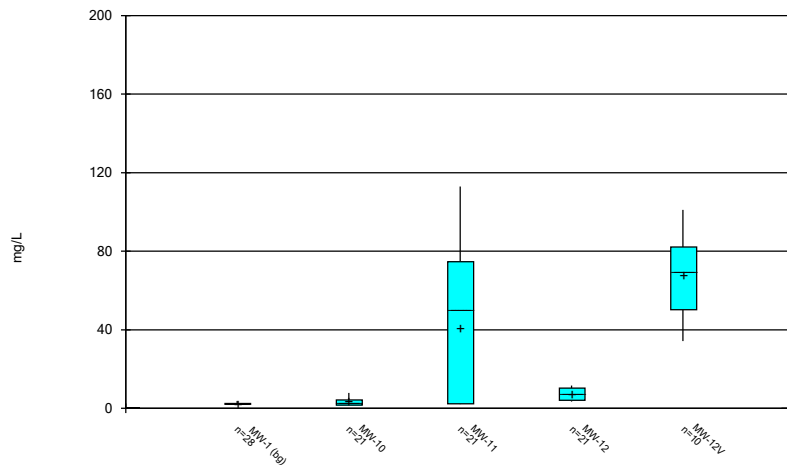
Constituent: Calcium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



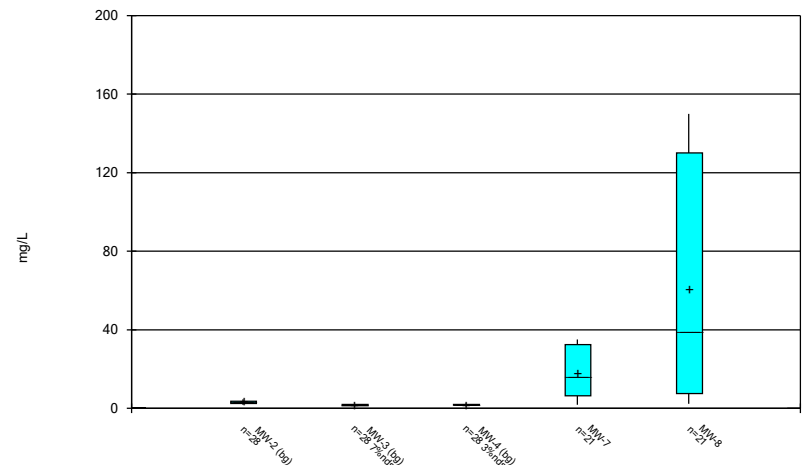
Constituent: Calcium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



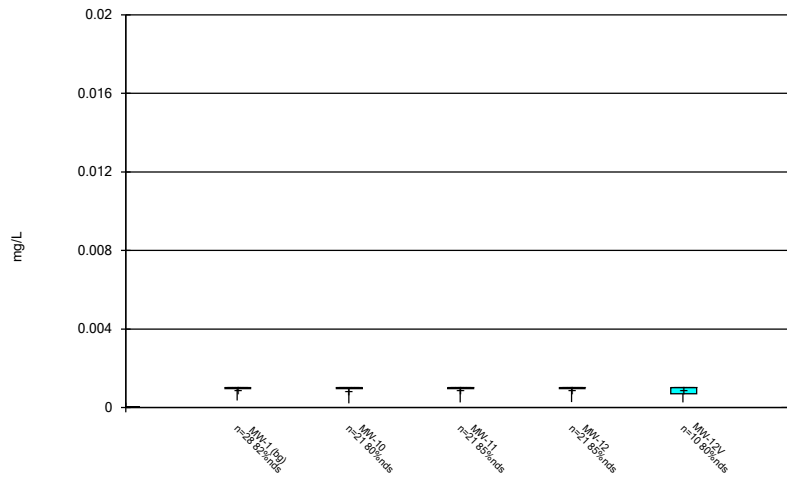
Constituent: Chloride Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



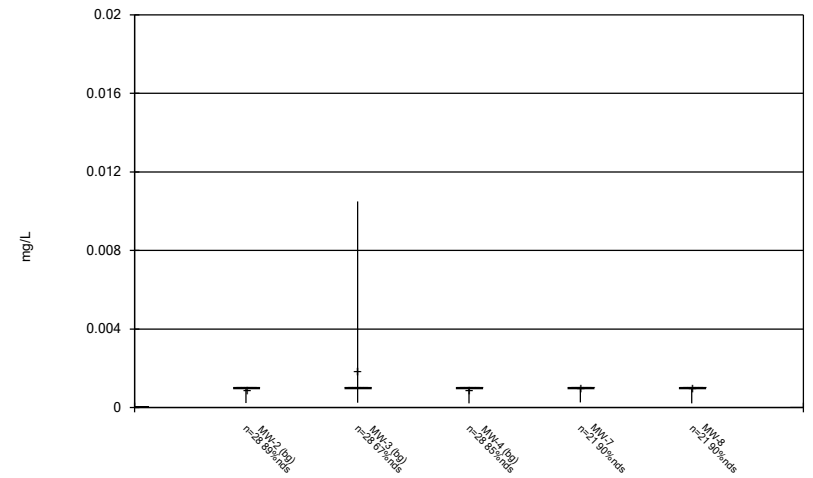
Constituent: Chloride Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



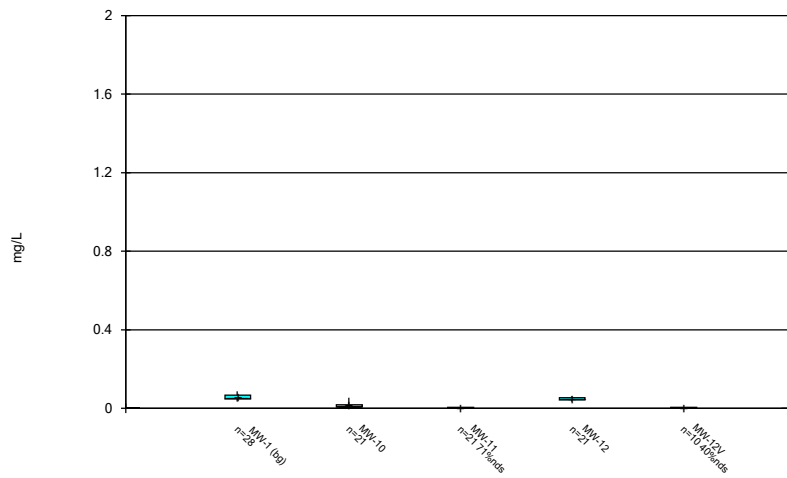
Constituent: Chromium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



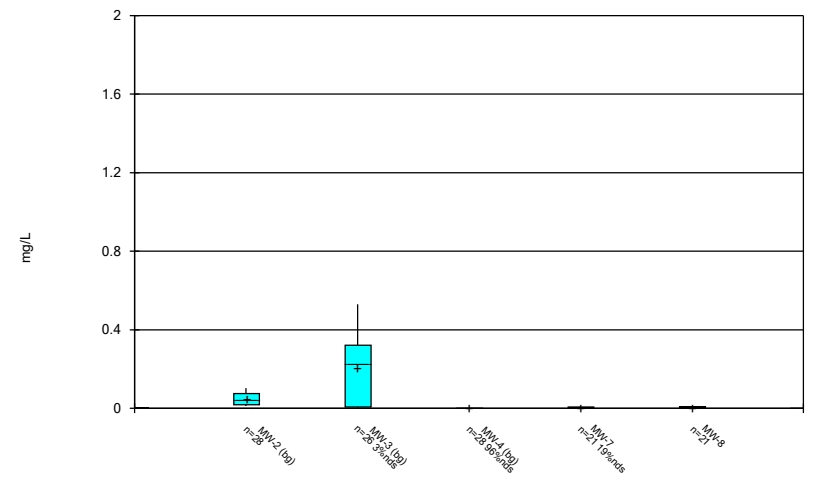
Constituent: Chromium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



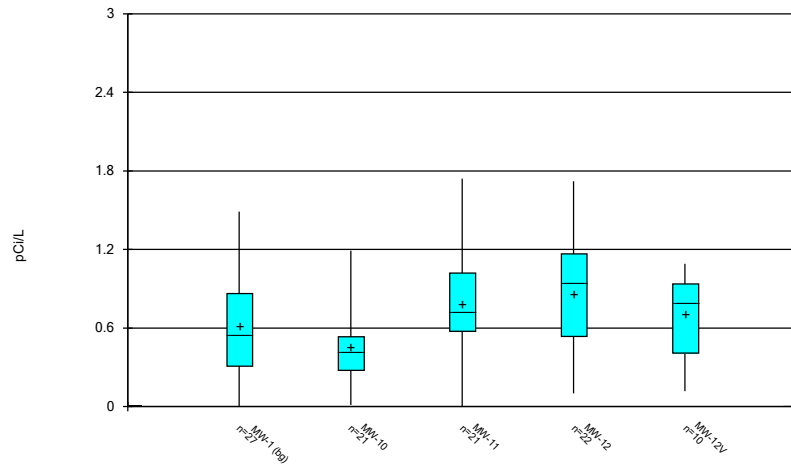
Constituent: Cobalt Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



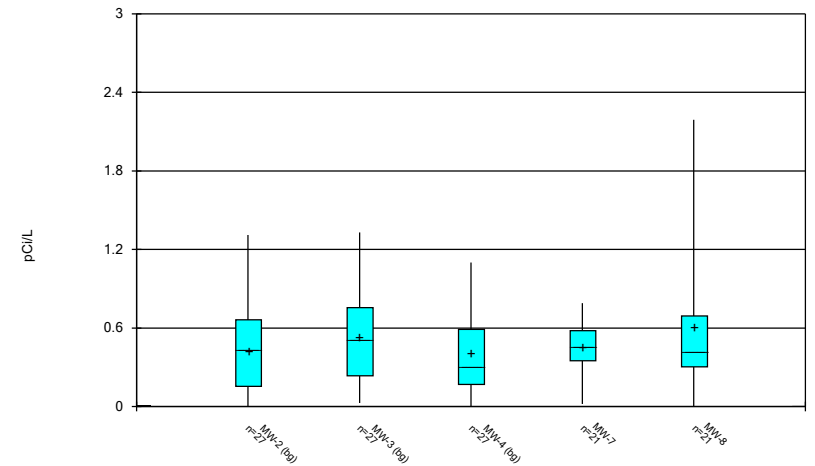
Constituent: Cobalt Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



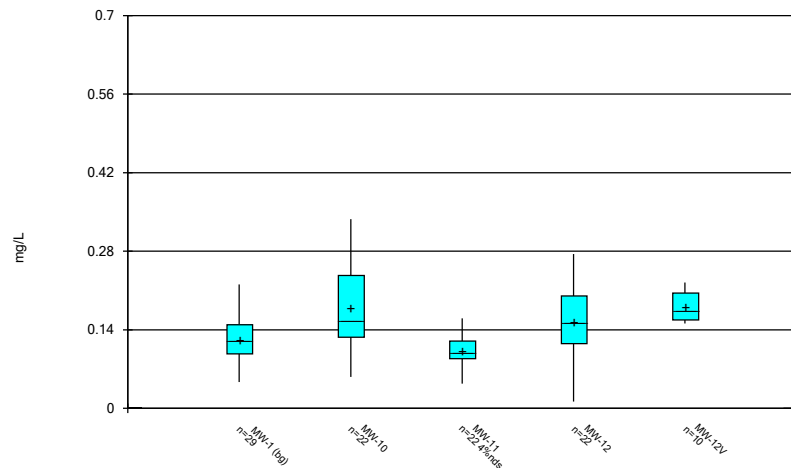
Constituent: Combined Radium 226 + 228 Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



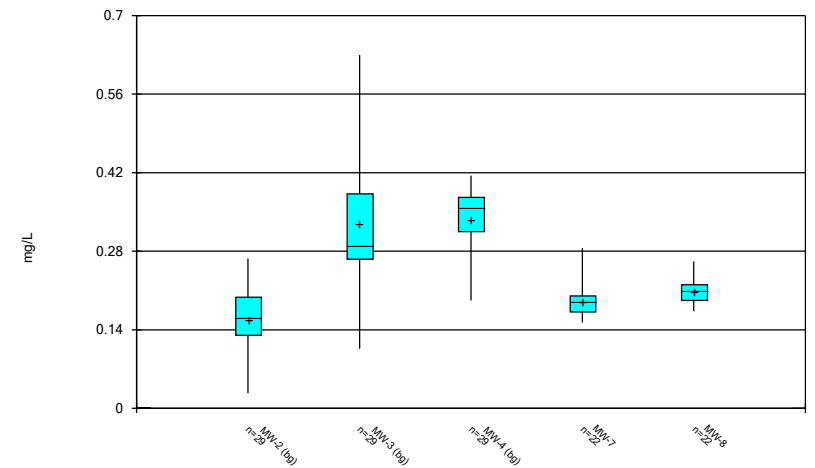
Constituent: Combined Radium 226 + 228 Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



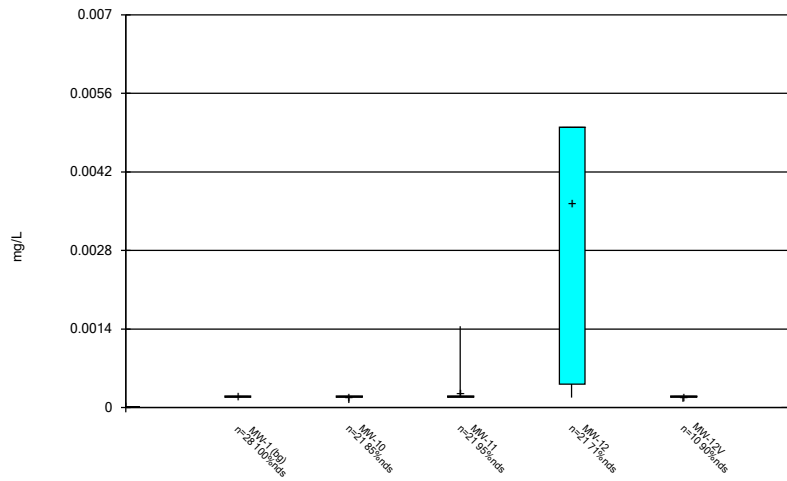
Constituent: Fluoride Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



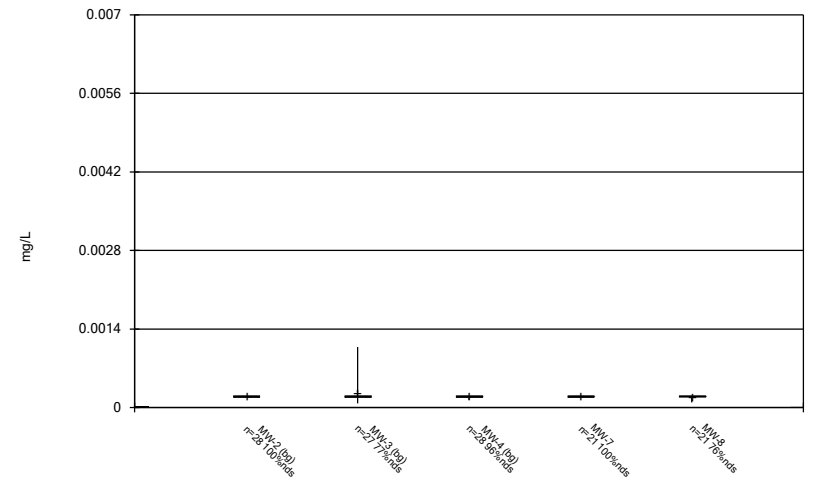
Constituent: Fluoride Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



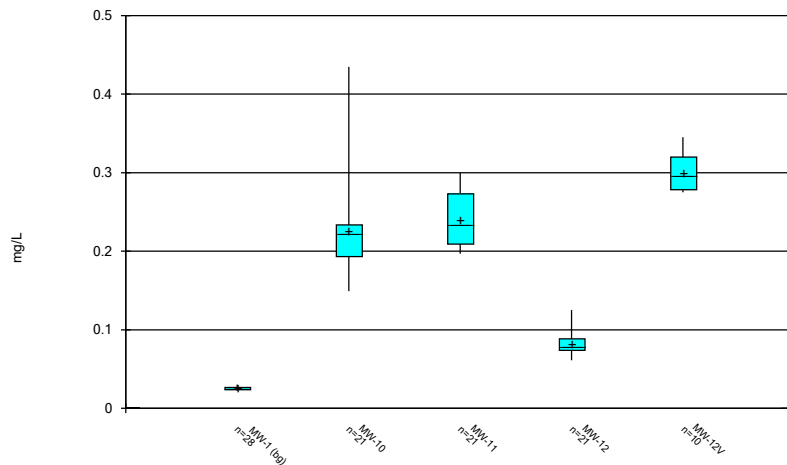
Constituent: Lead Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



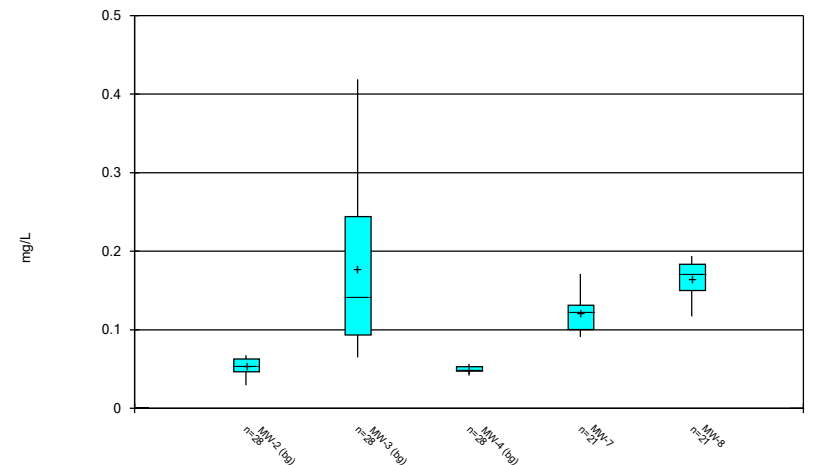
Constituent: Lead Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



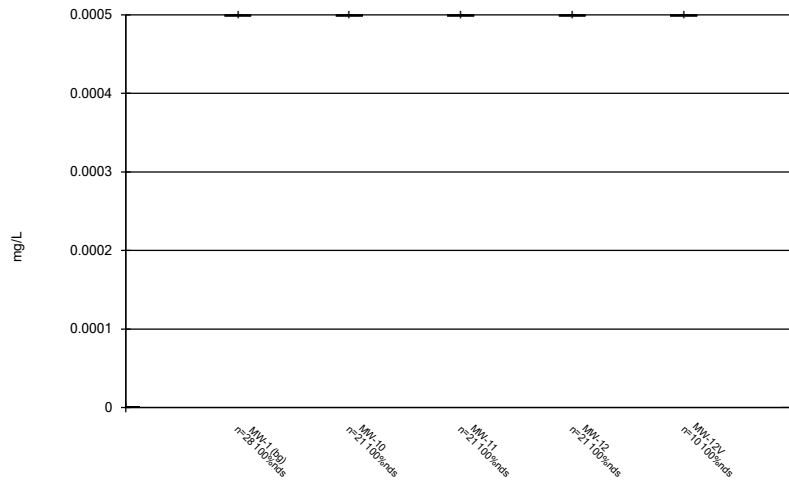
Constituent: Lithium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



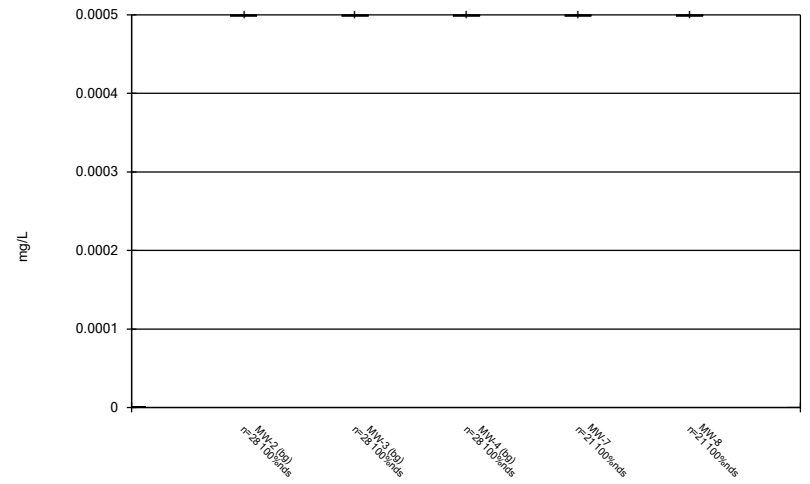
Constituent: Lithium Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



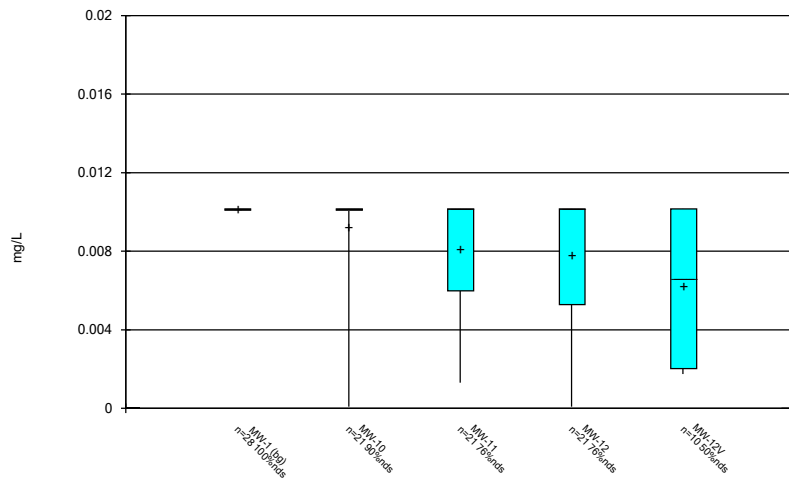
Constituent: Mercury Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



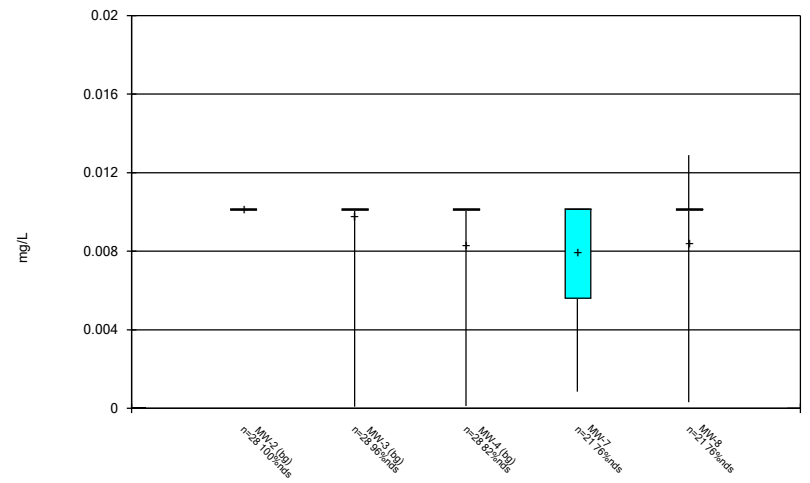
Constituent: Mercury Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



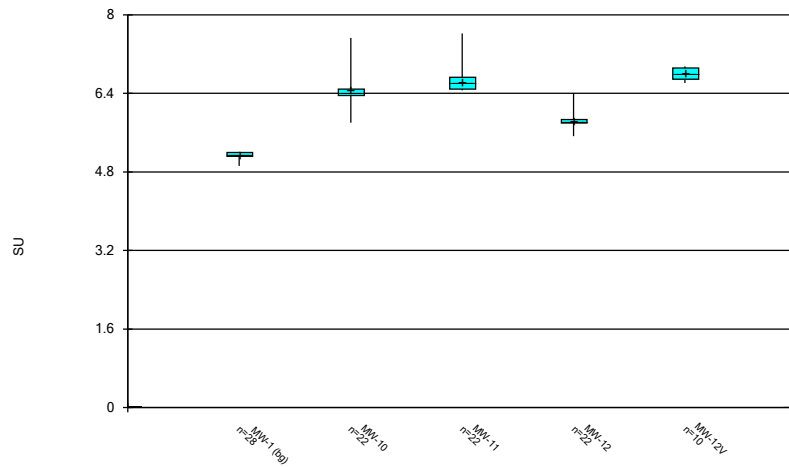
Constituent: Molybdenum Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



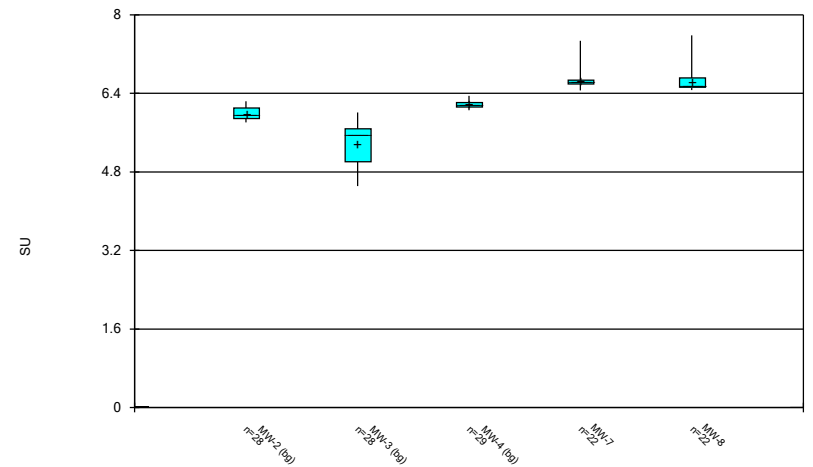
Constituent: Molybdenum Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



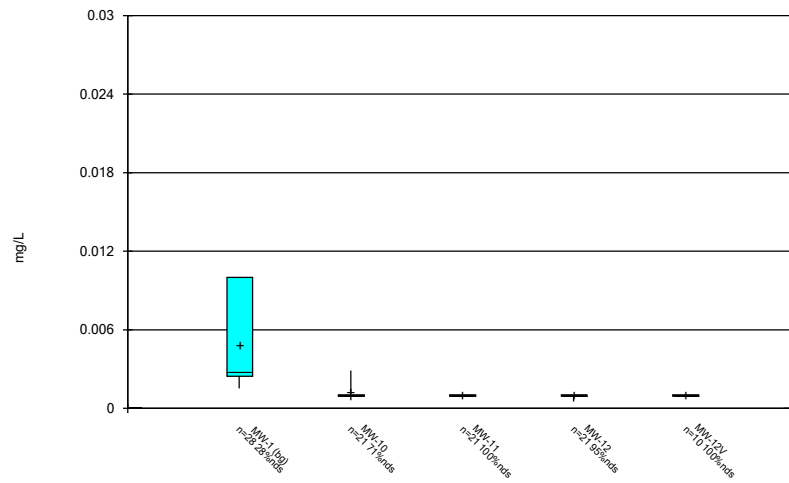
Constituent: pH Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



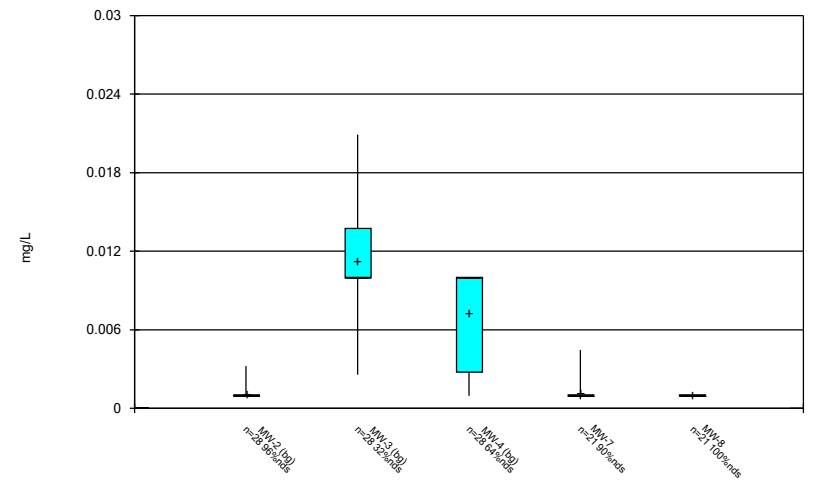
Constituent: pH Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



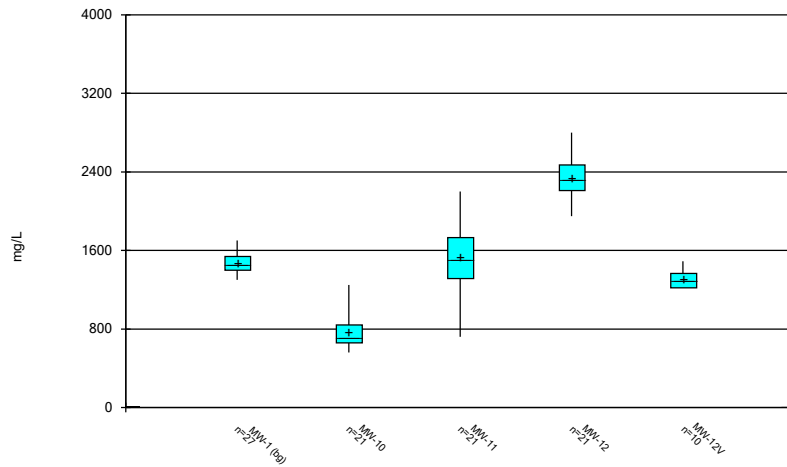
Constituent: Selenium Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



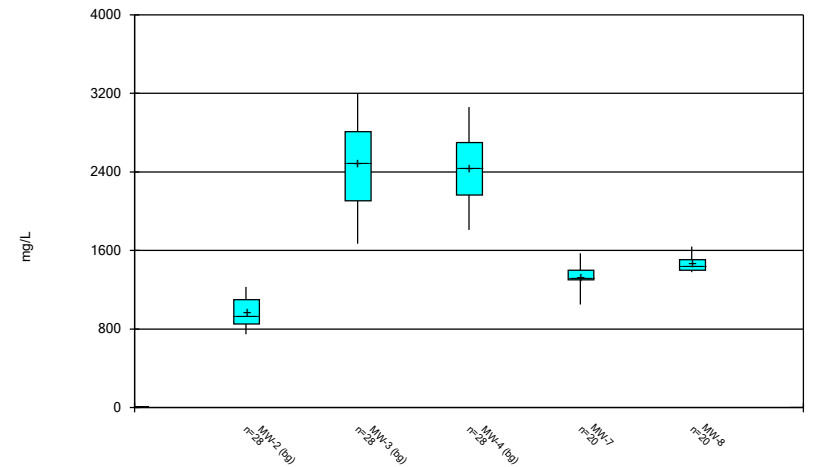
Constituent: Selenium Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



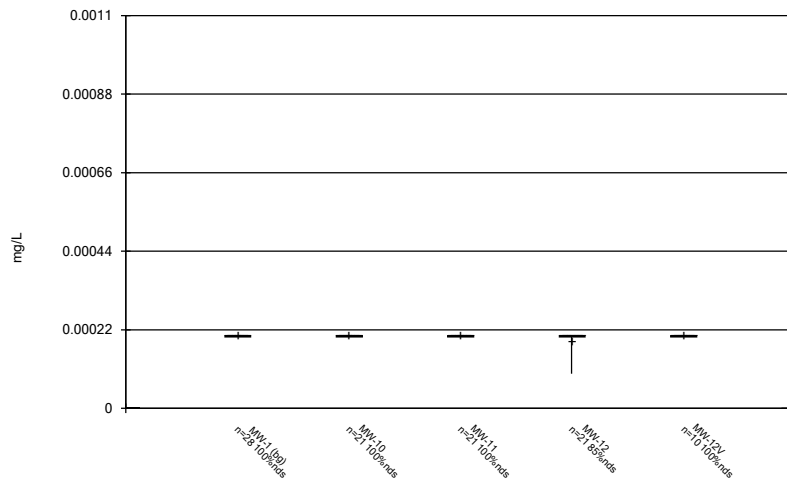
Constituent: Sulfate Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



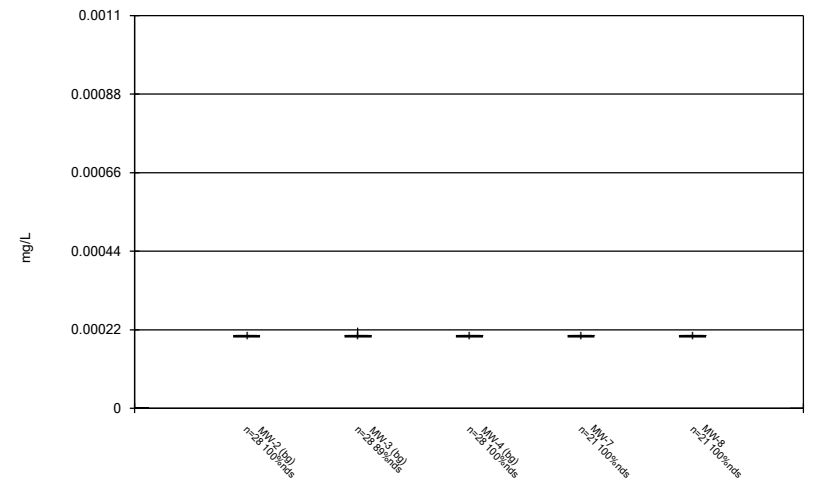
Constituent: Sulfate Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



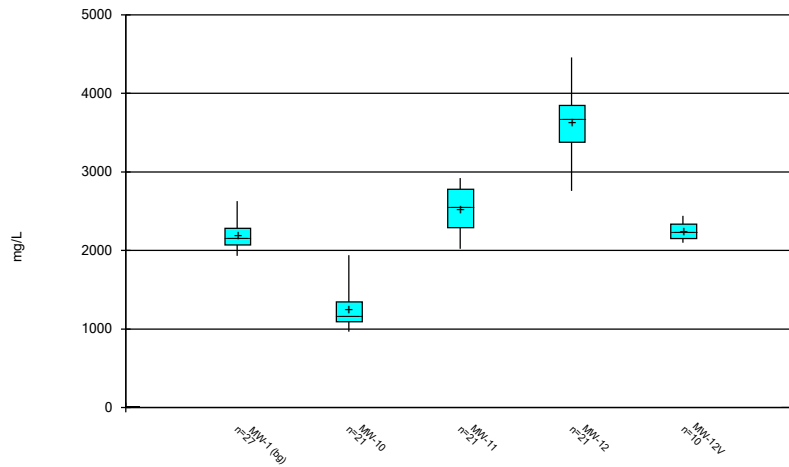
Constituent: Thallium Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



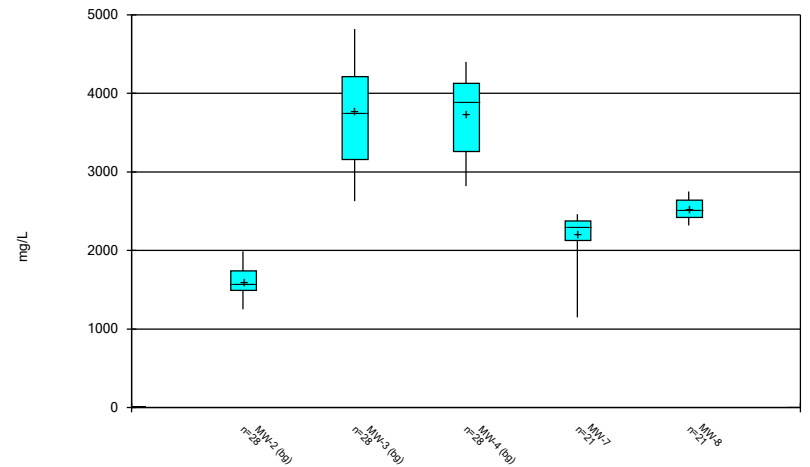
Constituent: Thallium Analysis Run 10/2/2023 3:25 PM View: Constituents View
 Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/2/2023 3:25 PM View: Constituents View
Plant Gorgas Data: Gorgas BALF CCR

FIGURE C.

Outlier Summary

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 4:10 PM

	MW-3 Beryllium (mg/L)	MW-4 Boron (mg/L)	MW-7 Boron (mg/L)	MW-3 Cadmium (mg/L)	MW-3 Cobalt (mg/L)	MW-3 Lead (mg/L)	MW-3 pH (SU)	MW-1 Sulfate (mg/L)	MW-7 Sulfate (mg/L)	MW-8 Sulfate (mg/L)
4/25/2016				0.0121 (O)						
4/27/2016			0.253 (o)							
1/18/2017	0.0169 (O)									
5/22/2018								2100 (o)		
5/23/2018									1900 (o)	2100 (o)
11/19/2018	0.0185 (O)					0.00692 (o)	3.77 (Eo)			
5/14/2019		<0.203 (o)								
10/8/2019						1.07 (o)				
10/16/2019						0.848 (o)				

	MW-1 Total Dissolved Solids (mg/L)
4/25/2016	
4/27/2016	
1/18/2017	
5/22/2018	
5/23/2018	
11/19/2018	
5/14/2019	
10/8/2019	
10/16/2019	3650 (o)

Outlier Test - All Wells - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 9/29/2023, 12:49 PM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Calcium (mg/L)	MW-1 (bg)	Yes	243	NP	NaN	27	155.7	22.44	In(x)	ShapiroWilk
Sulfate (mg/L)	MW-1 (bg)	Yes	2100	NP	NaN	27	1494	156.8	In(x)	ShapiroWilk
Sulfate (mg/L)	MW-7	Yes	1900	NP	NaN	20	1354	177.8	In(x)	ShapiroWilk
Sulfate (mg/L)	MW-8	Yes	2100	NP	NaN	20	1495	161.5	In(x)	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-1 (bg)	Yes	3650	NP	NaN	27	2249	317.5	In(x)	ShapiroWilk

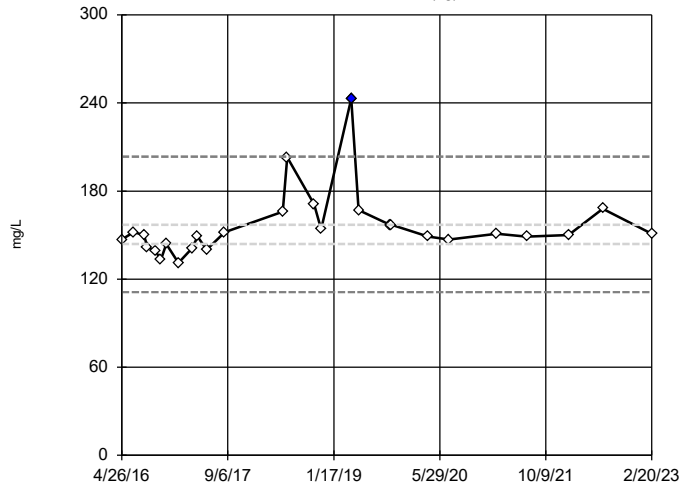
Outlier Test - All Wells - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 9/29/2023, 12:49 PM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Calcium (mg/L)	MW-1 (bg)	Yes	243	NP	NaN	27	155.7	22.44	ln(x)	ShapiroWilk
Calcium (mg/L)	MW-10	No	n/a	NP	NaN	20	178.1	41.96	ln(x)	ShapiroWilk
Calcium (mg/L)	MW-11	No	n/a	NP	NaN	20	363.3	28.63	x^4	ShapiroWilk
Calcium (mg/L)	MW-12	No	n/a	NP	NaN	20	349.4	23.95	ln(x)	ShapiroWilk
Calcium (mg/L)	MW-2 (bg)	No	n/a	NP	NaN	27	173.2	19.56	normal	ShapiroWilk
Calcium (mg/L)	MW-3 (bg)	No	n/a	NP	NaN	27	296.9	59.85	x^(1/3)	ShapiroWilk
Calcium (mg/L)	MW-4 (bg)	No	n/a	NP	NaN	27	297.7	43.11	ln(x)	ShapiroWilk
Calcium (mg/L)	MW-7	No	n/a	NP	NaN	20	287.6	27.78	x^5	ShapiroWilk
Calcium (mg/L)	MW-8	No	n/a	NP	NaN	20	302.4	18	ln(x)	ShapiroWilk
Fluoride (mg/L)	MW-1 (bg)	No	n/a	NP	NaN	28	0.1204	0.03916	normal	ShapiroWilk
Fluoride (mg/L)	MW-10	No	n/a	NP	NaN	21	0.1823	0.07148	sqrt(x)	ShapiroWilk
Fluoride (mg/L)	MW-11	No	n/a	NP	NaN	21	0.1016	0.02722	normal	ShapiroWilk
Fluoride (mg/L)	MW-12	No	n/a	NP	NaN	21	0.1549	0.06375	normal	ShapiroWilk
Fluoride (mg/L)	MW-2 (bg)	No	n/a	NP	NaN	28	0.1558	0.05815	normal	ShapiroWilk
Fluoride (mg/L)	MW-3 (bg)	No	n/a	NP	NaN	28	0.3319	0.1244	x^(1/3)	ShapiroWilk
Fluoride (mg/L)	MW-4 (bg)	No	n/a	NP	NaN	28	0.3352	0.05624	x^4	ShapiroWilk
Fluoride (mg/L)	MW-7	No	n/a	NP	NaN	21	0.1916	0.02669	ln(x)	ShapiroWilk
Fluoride (mg/L)	MW-8	No	n/a	NP	NaN	21	0.2092	0.01917	ln(x)	ShapiroWilk
Sulfate (mg/L)	MW-1 (bg)	Yes	2100	NP	NaN	27	1494	156.8	ln(x)	ShapiroWilk
Sulfate (mg/L)	MW-10	No	n/a	NP	NaN	20	775.1	171.7	ln(x)	ShapiroWilk
Sulfate (mg/L)	MW-11	No	n/a	NP	NaN	20	1539	310.3	x^2	ShapiroWilk
Sulfate (mg/L)	MW-12	No	n/a	NP	NaN	20	2332	217.3	normal	ShapiroWilk
Sulfate (mg/L)	MW-2 (bg)	No	n/a	NP	NaN	27	968.1	149.7	ln(x)	ShapiroWilk
Sulfate (mg/L)	MW-3 (bg)	No	n/a	NP	NaN	27	2464	414.3	normal	ShapiroWilk
Sulfate (mg/L)	MW-4 (bg)	No	n/a	NP	NaN	27	2441	351.3	x^2	ShapiroWilk
Sulfate (mg/L)	MW-7	Yes	1900	NP	NaN	20	1354	177.8	ln(x)	ShapiroWilk
Sulfate (mg/L)	MW-8	Yes	2100	NP	NaN	20	1495	161.5	ln(x)	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-1 (bg)	Yes	3650	NP	NaN	27	2249	317.5	ln(x)	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-10	No	n/a	NP	NaN	20	1270	262.1	ln(x)	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-11	No	n/a	NP	NaN	20	2549	267	x^3	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-12	No	n/a	NP	NaN	20	3621	369.4	normal	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-2 (bg)	No	n/a	NP	NaN	27	1606	203.5	normal	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-3 (bg)	No	n/a	NP	NaN	27	3729	641.6	sqrt(x)	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-4 (bg)	No	n/a	NP	NaN	27	3736	476.3	x^6	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-7	No	n/a	NP	NaN	20	2203	310.9	x^6	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-8	No	n/a	NP	NaN	20	2535	128.9	ln(x)	ShapiroWilk

Tukey's Outlier Screening

MW-1 (bg)

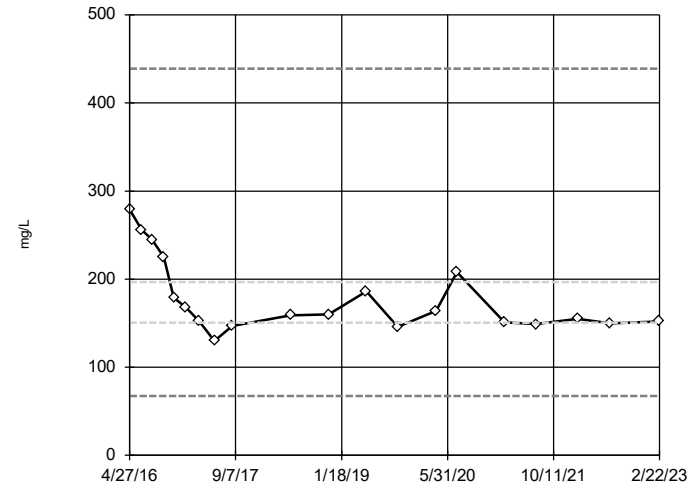


n = 27
 Outlier is drawn as solid. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 203.5, low cutoff = 111.1, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-10

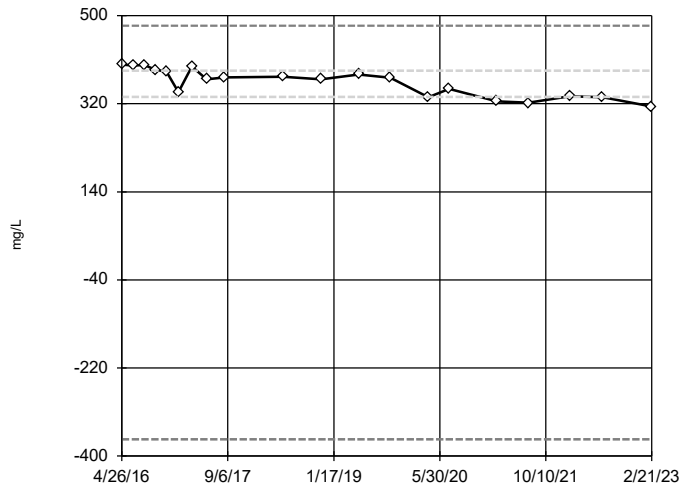


n = 20
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 439.1, low cutoff = 67.42, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-11

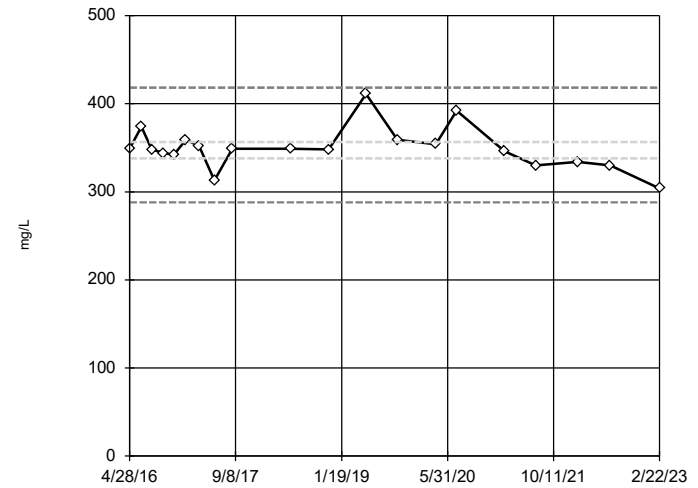


n = 20
 No outliers found. Tukey's method selected by user.
 Data were x*4 transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 479.5, low cutoff = -365.6, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-12

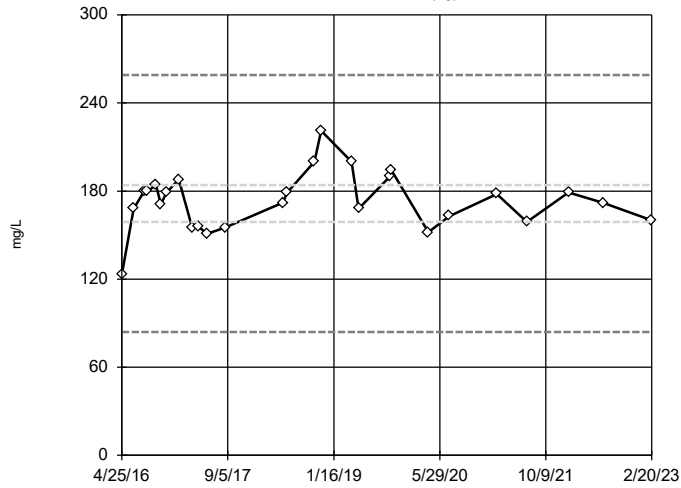


n = 20
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 418.3, low cutoff = 288, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-2 (bg)

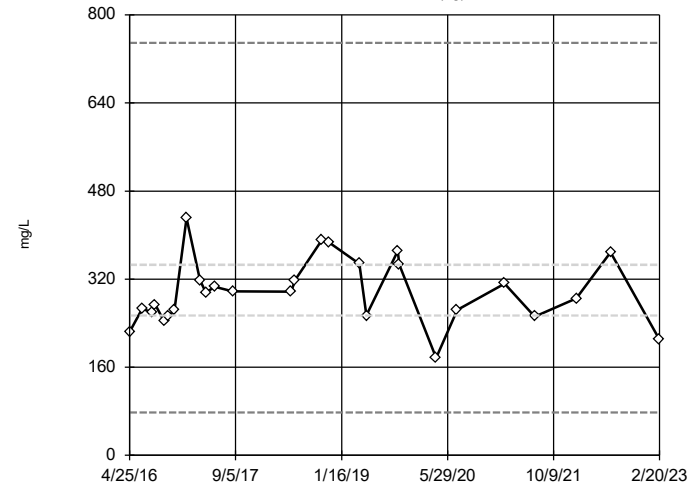


n = 27
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 259, low cutoff = 84, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-3 (bg)

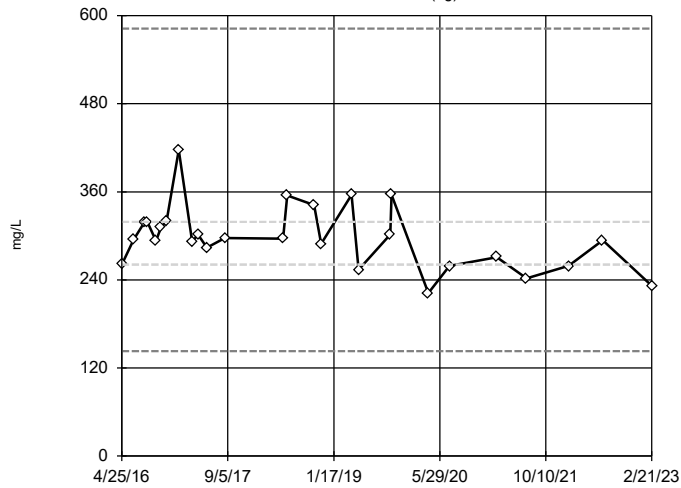


n = 27
 No outliers found.
 Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 749.2, low cutoff = 77.91, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-4 (bg)

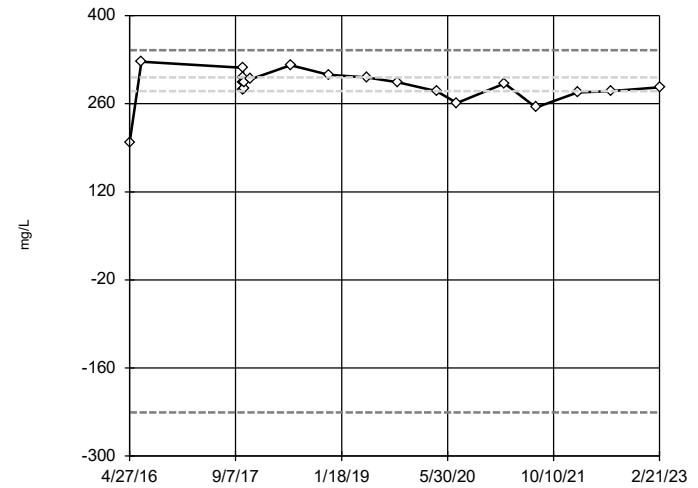


n = 27
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 582.4, low cutoff = 143, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-7

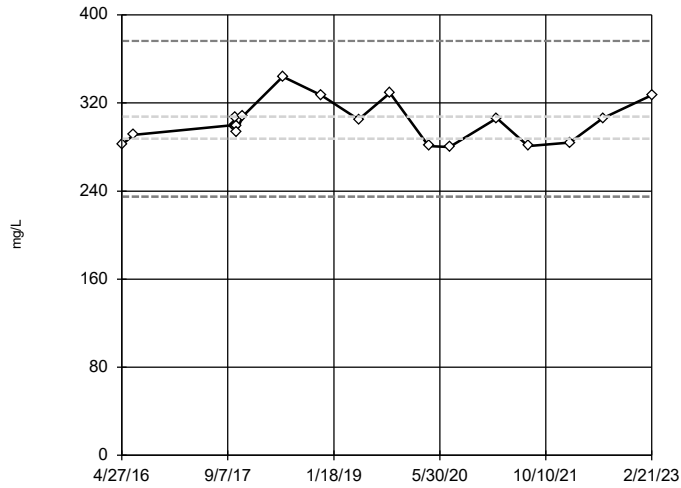


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were x^5 transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 345, low cutoff = -230.6, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-8

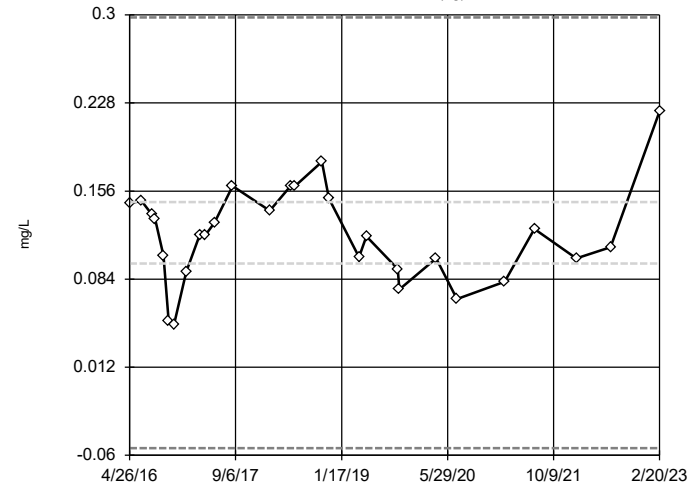


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 376.3, low cutoff = 234.9, based on IQR multiplier of 3.

Constituent: Calcium Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-1 (bg)

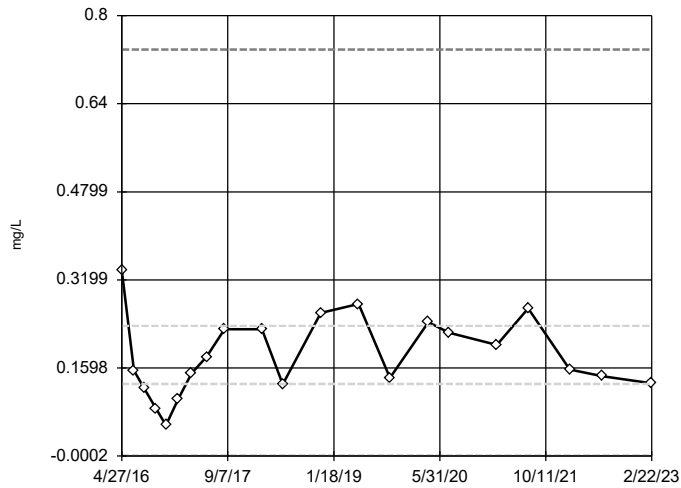


n = 28
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 0.2979, low cutoff = -0.0542, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-10

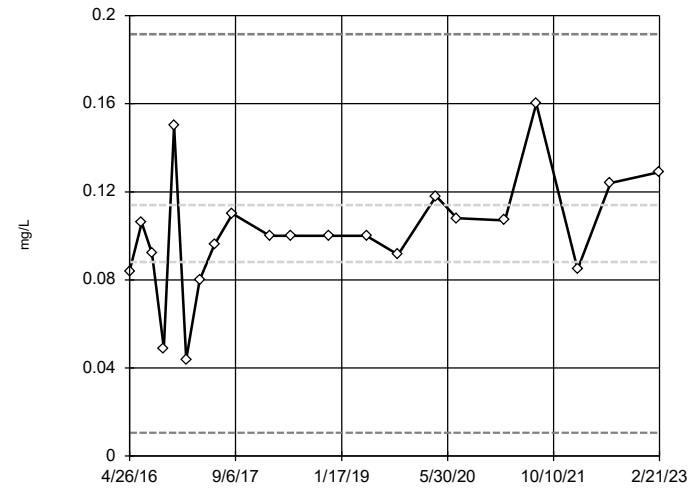


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.7383, low cutoff = -0.0001222, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-11

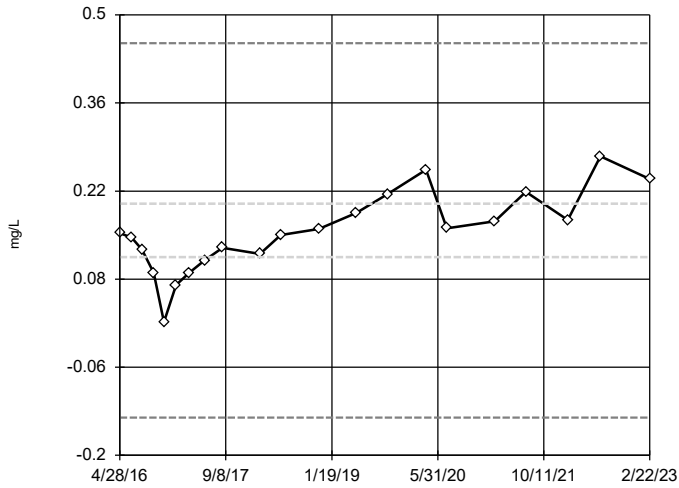


n = 21
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 0.1916, low cutoff = 0.0106, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-12

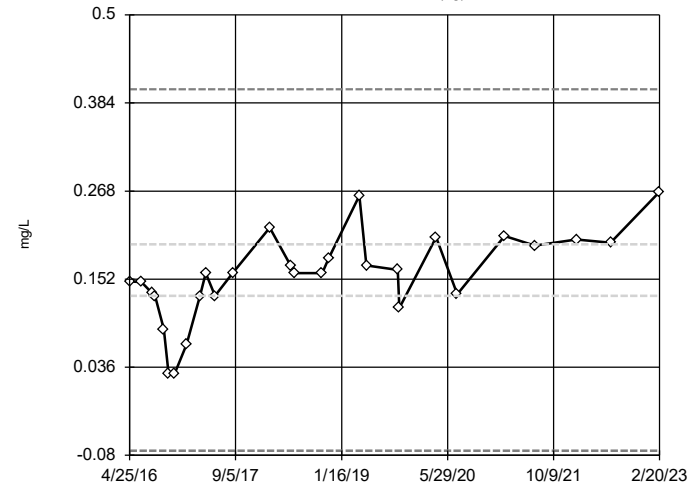


n = 21
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 0.455, low cutoff = -0.14, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-2 (bg)

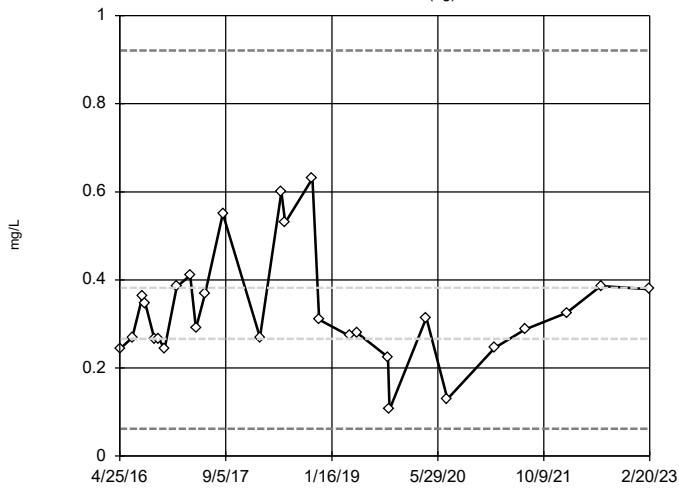


n = 28
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 0.402, low cutoff = -0.074, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-3 (bg)

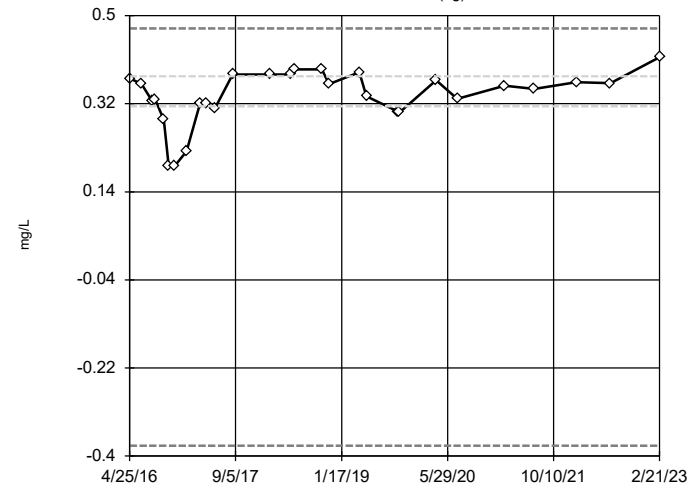


n = 28
 No outliers found.
 Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.921, low cutoff = 0.06198, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-4 (bg)

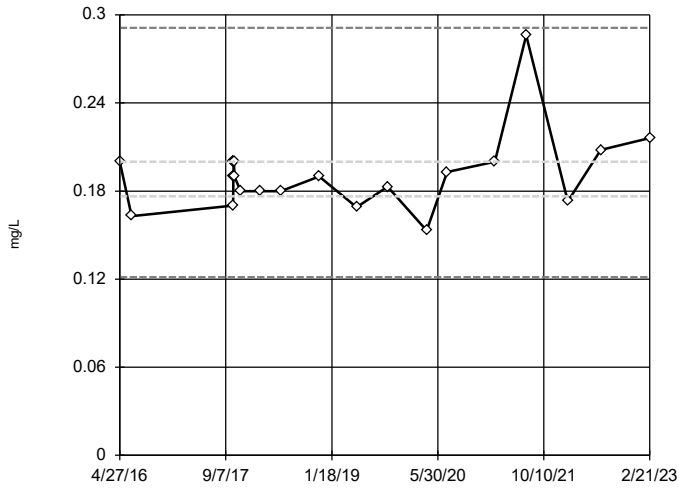


n = 28
 No outliers found.
 Tukey's method selected by user.
 Data were x^4 transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.4739, low cutoff = -0.3787, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-7

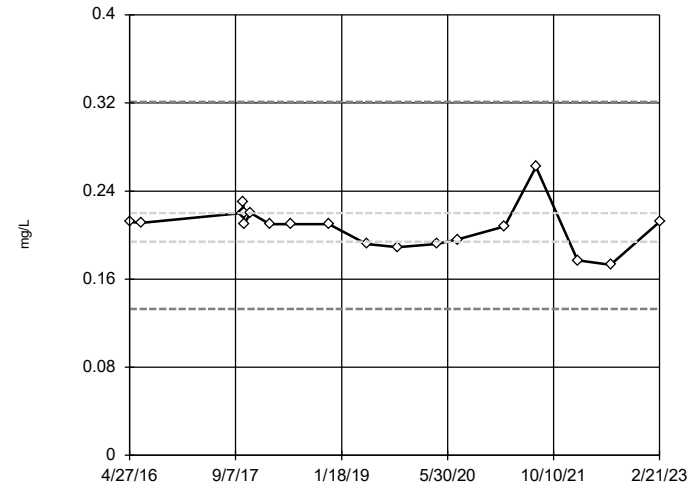


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.2912, low cutoff = 0.1212, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-8

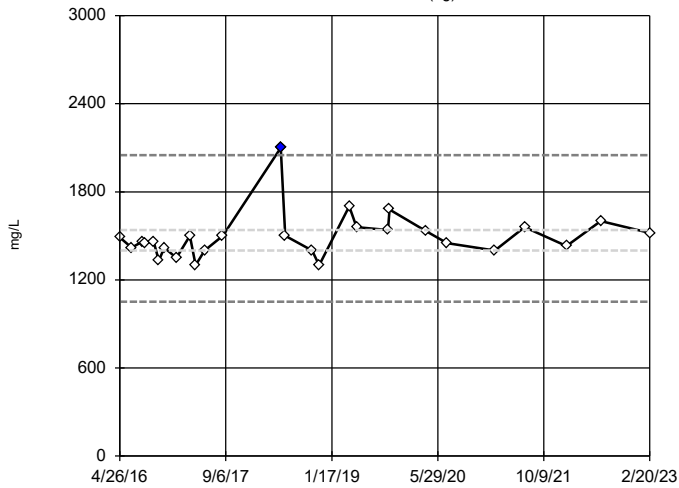


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.3209, low cutoff = 0.133, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-1 (bg)

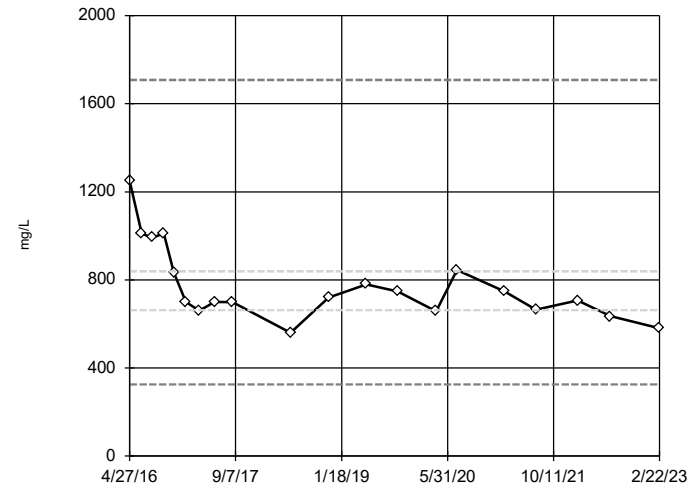


n = 27
 Outlier is drawn as solid.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 2050, low cutoff = 1052, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-10

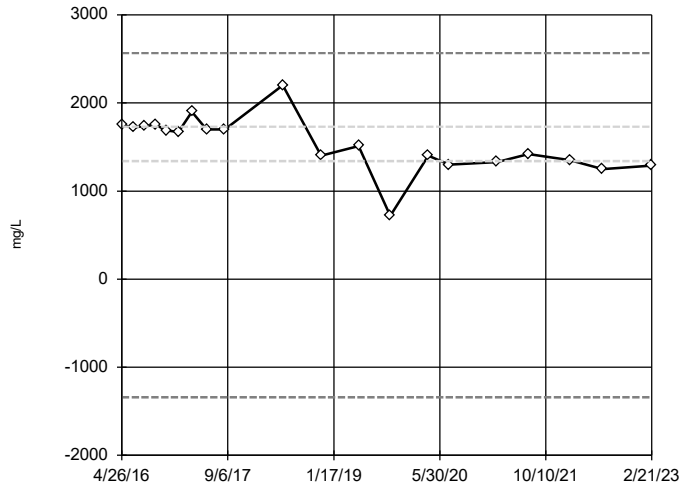


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 1708, low cutoff = 325.6, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-11

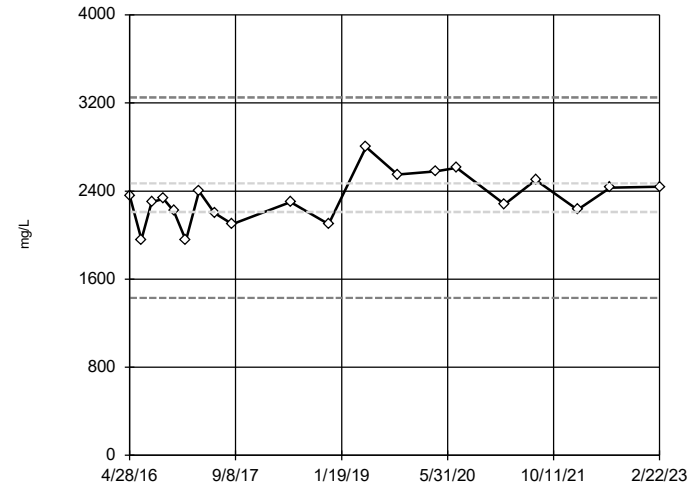


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 2566, low cutoff = -1340, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-12

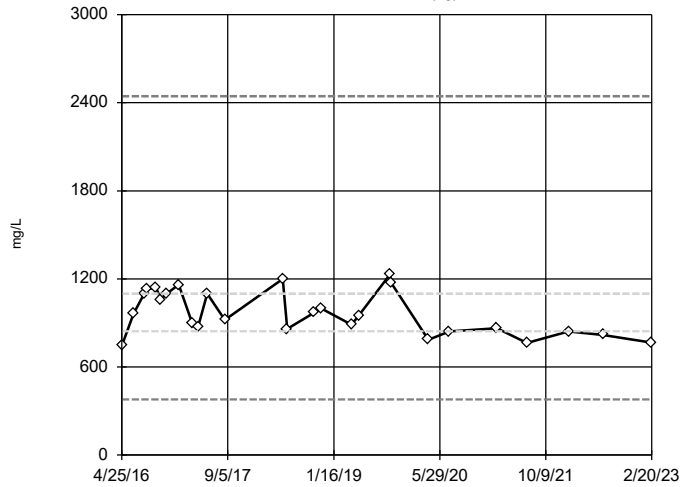


n = 20
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 3250, low cutoff = 1430, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-2 (bg)

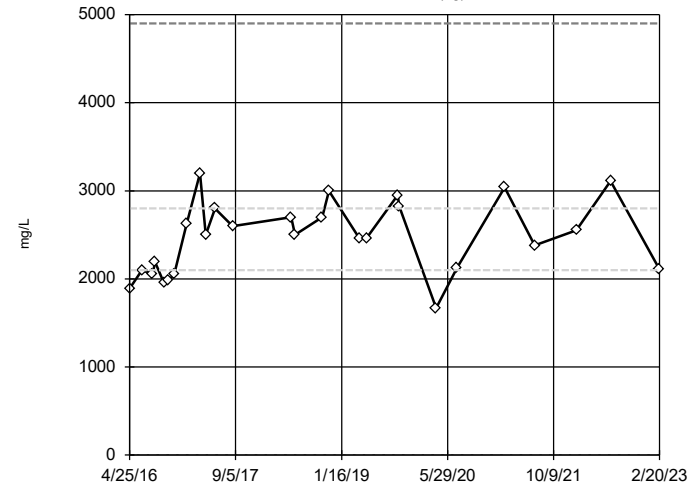


n = 27
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 2444, low cutoff = 379.4, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

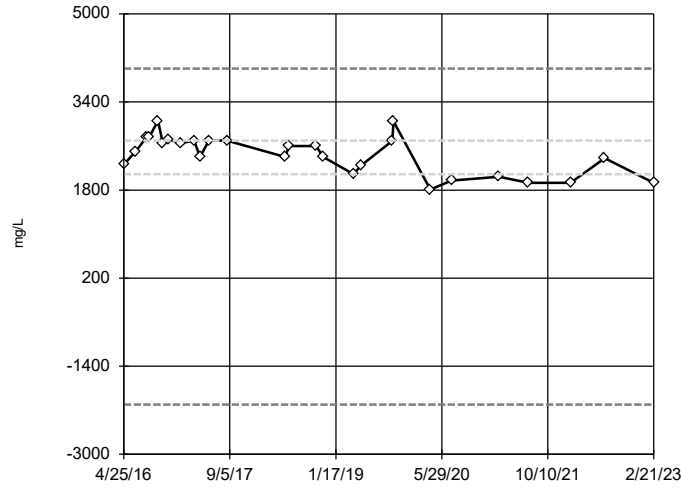
MW-3 (bg)



n = 27
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 4900, low cutoff = 0, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

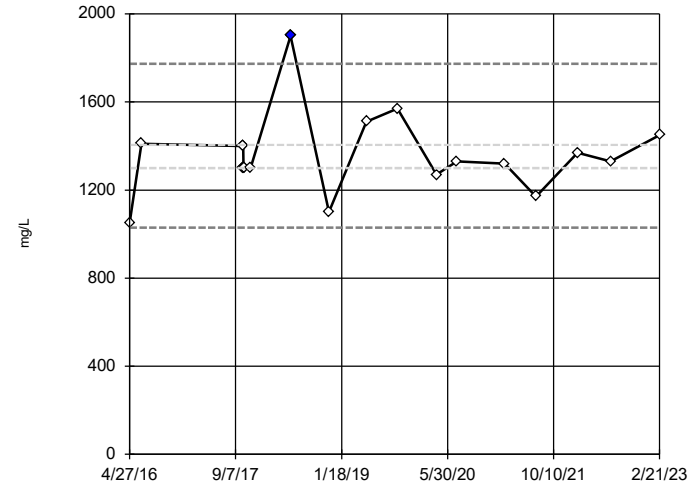
Tukey's Outlier Screening
MW-4 (bg)



n = 27
No outliers found.
Tukey's method selected by user.
Data were square transformed to achieve best W statistic (graph shown in original units).
High cutoff = 4007, low cutoff = -2097, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

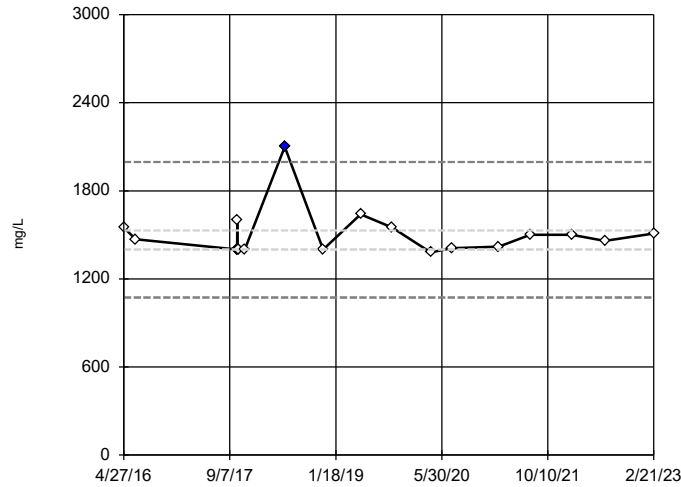
Tukey's Outlier Screening
MW-7



n = 20
Outlier is drawn as solid. Tukey's method selected by user.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
High cutoff = 1774, low cutoff = 1030, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

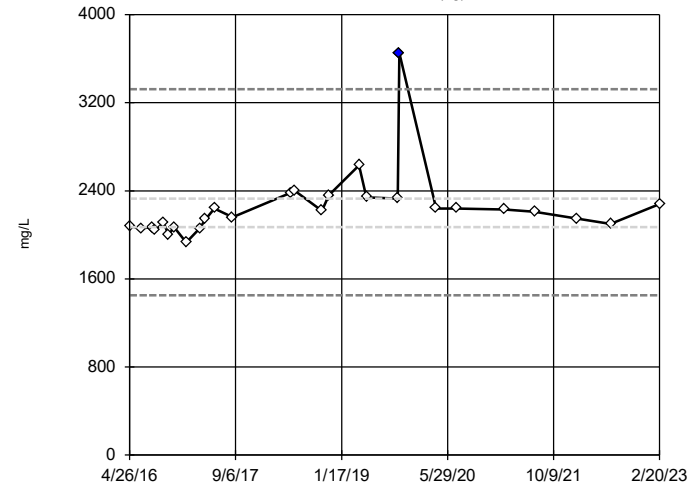
Tukey's Outlier Screening
MW-8



n = 20
Outlier is drawn as solid. Tukey's method selected by user.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
High cutoff = 1996, low cutoff = 1073, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening
MW-1 (bg)

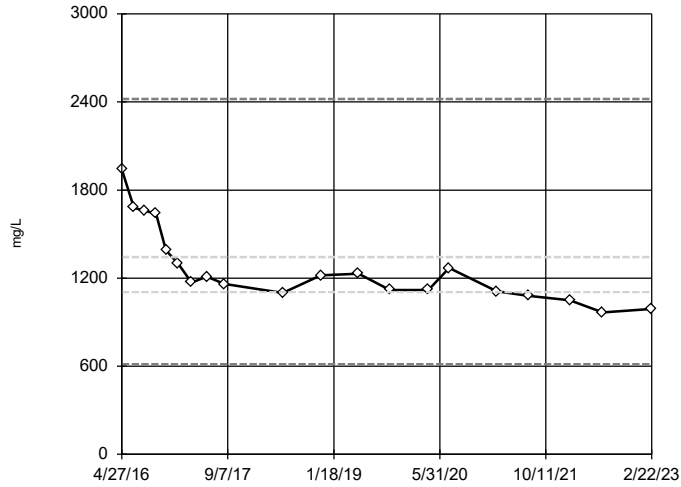


n = 27
Outlier is drawn as solid. Tukey's method selected by user.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
High cutoff = 3323, low cutoff = 1451, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-10

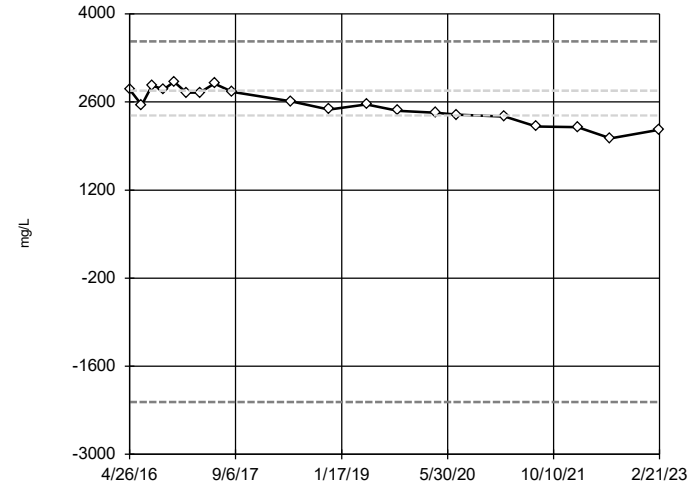


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 2420, low cutoff = 613.8, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-11

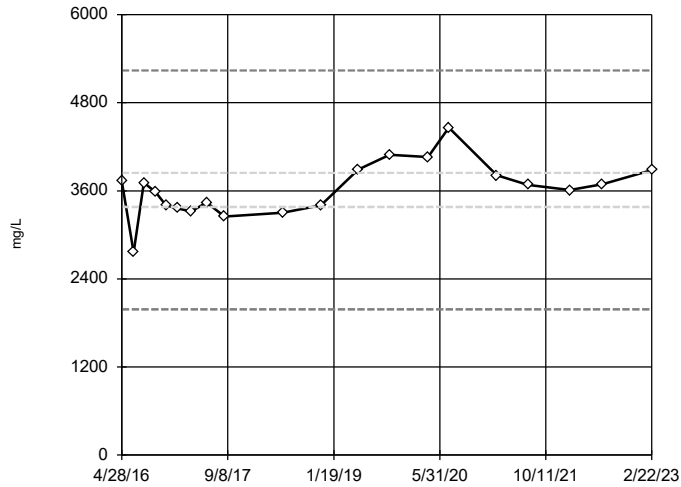


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 3563, low cutoff = -2168, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-12

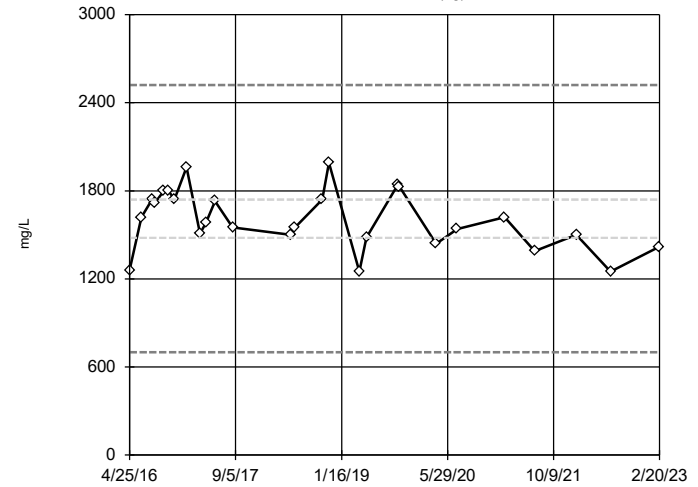


n = 20
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 5240, low cutoff = 1985, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-2 (bg)

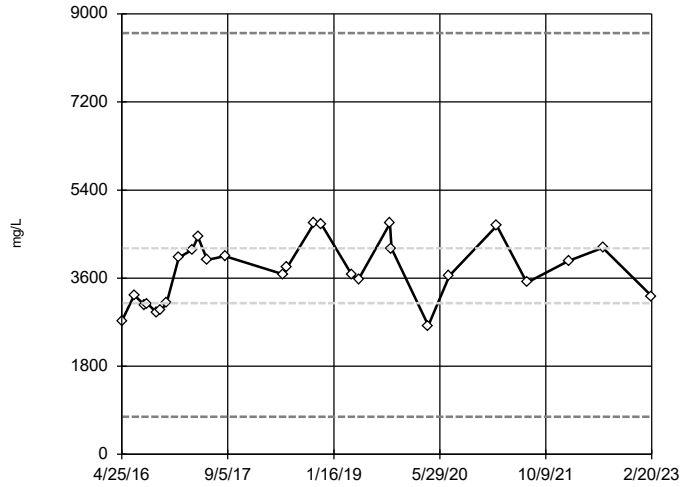


n = 27
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 2520, low cutoff = 700, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-3 (bg)

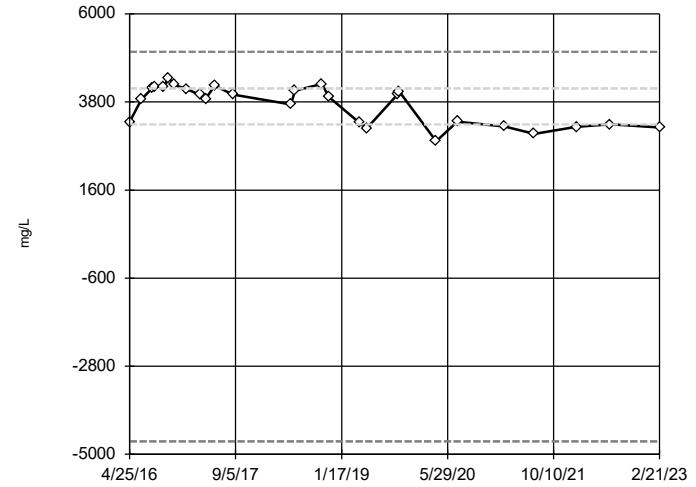


n = 27
 No outliers found.
 Tukey's method selected by user.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 8607, low cutoff = 767.2, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-4 (bg)

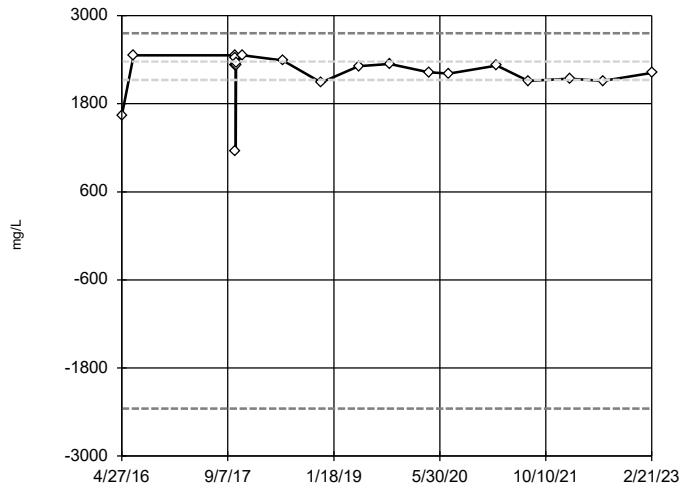


n = 27
 No outliers found.
 Tukey's method selected by user.
 Data were x*6 transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 5054, low cutoff = -4678, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-7

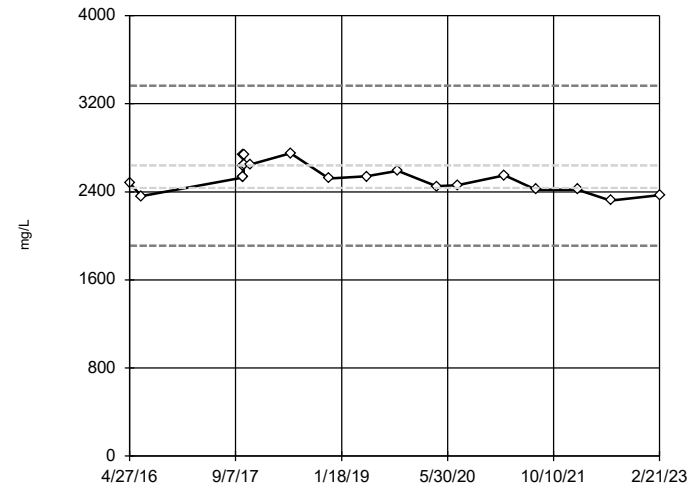


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were x*6 transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 2760, low cutoff = -2354, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

MW-8



n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 3365, low cutoff = 1911, based on IQR multiplier of 3.

Constituent: Total Dissolved Solids Analysis Run 9/29/2023 12:46 PM View: Tukey's Outlier Tests
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)
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 (O)
5/14/2019	167
10/8/2019	157
10/16/2019	157
4/6/2020	149
7/13/2020	147
2/22/2021	151
7/12/2021	149
1/25/2022	150
7/5/2022	168
2/20/2023	151

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-10
4/27/2016	279
6/23/2016	256
8/10/2016	245
10/5/2016	225
11/21/2016	179
1/17/2017	168
3/21/2017	152
5/31/2017	130
8/23/2017	147
5/24/2018	159
11/19/2018	160
5/15/2019	186
10/9/2019	146
4/8/2020	164
7/14/2020	208
2/23/2021	151
7/20/2021	149
2/1/2022	155
7/6/2022	150
2/22/2023	152

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-11
4/26/2016	400
6/22/2016	398
8/9/2016	399
10/4/2016	389
11/21/2016	386
1/17/2017	344
3/21/2017	396
5/30/2017	370
8/23/2017	374
5/22/2018	375
11/20/2018	370
5/15/2019	380
10/10/2019	373
4/6/2020	333
7/13/2020	350
2/24/2021	325
7/21/2021	322
2/1/2022	335
7/5/2022	333
2/21/2023	314

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-12
4/28/2016	349
6/22/2016	374
8/10/2016	348
10/5/2016	344
11/22/2016	342
1/18/2017	359
3/21/2017	352
5/31/2017	313
8/23/2017	349
5/24/2018	349
11/19/2018	348
5/15/2019	411
10/9/2019	359
4/6/2020	354
7/13/2020	392
2/24/2021	346
7/20/2021	330
2/1/2022	334
7/5/2022	330
2/22/2023	304

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)
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
2/22/2021	178
7/12/2021	159
1/25/2022	179
7/5/2022	172
2/20/2023	160

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)
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
2/22/2021	312
7/12/2021	252
1/25/2022	285
7/5/2022	369
2/20/2023	210

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-4 (bg)
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
2/22/2021	271
7/12/2021	242
1/25/2022	259
7/5/2022	294
2/21/2023	232

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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
2/23/2021	292
7/20/2021	254
1/31/2022	278
7/6/2022	280
2/21/2023	286

Tukey's Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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
2/23/2021	306
7/20/2021	281
2/1/2022	284
7/6/2022	306
2/21/2023	327

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)
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
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)
2/22/2021	0.082 (J)
7/12/2021	0.125
1/25/2022	0.101
7/5/2022	0.11 (J)
2/20/2023	0.221

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-10
4/27/2016	0.337
6/23/2016	0.155 (J)
8/10/2016	0.123 (J)
10/5/2016	0.086 (J)
11/21/2016	0.056 (J)
1/17/2017	0.103 (J)
3/21/2017	0.15
5/31/2017	0.18
8/23/2017	0.23
2/15/2018	0.23
5/24/2018	0.13
11/19/2018	0.26
5/15/2019	0.276
10/9/2019	0.142
4/8/2020	0.243
7/14/2020	0.224
2/23/2021	0.202
7/20/2021	0.268
2/1/2022	0.157
7/6/2022	0.145
2/22/2023	0.132

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-11
4/26/2016	0.084 (J)
6/22/2016	0.106 (J)
8/9/2016	0.092 (J)
10/4/2016	0.049 (J)
11/21/2016	<0.3
1/17/2017	0.044 (J)
3/21/2017	0.08 (J)
5/30/2017	0.096 (J)
8/23/2017	0.11
2/14/2018	0.1
5/22/2018	0.1
11/20/2018	0.1
5/15/2019	0.1
10/10/2019	0.0915 (J)
4/6/2020	0.118
7/13/2020	0.108
2/24/2021	0.107
7/21/2021	0.16
2/1/2022	0.0848 (J)
7/5/2022	0.124 (J)
2/21/2023	0.129

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-12
4/28/2016	0.153 (J)
6/22/2016	0.146 (J)
8/10/2016	0.127 (J)
10/5/2016	0.09 (J)
11/22/2016	0.012 (J)
1/18/2017	0.071 (J)
3/21/2017	0.09 (J)
5/31/2017	0.11
8/23/2017	0.13
2/15/2018	0.12
5/24/2018	0.15
11/19/2018	0.16
5/15/2019	0.185
10/9/2019	0.215
4/6/2020	0.254
7/13/2020	0.161
2/24/2021	0.172
7/20/2021	0.219
2/1/2022	0.174
7/5/2022	0.275
2/22/2023	0.239

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)
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
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
2/22/2021	0.209
7/12/2021	0.196
1/25/2022	0.204
7/5/2022	0.2
2/20/2023	0.267

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)
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
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
2/22/2021	0.246
7/12/2021	0.287
1/25/2022	0.325
7/5/2022	0.386
2/20/2023	0.379

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-4 (bg)
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
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
2/22/2021	0.357
7/12/2021	0.35
1/25/2022	0.364
7/5/2022	0.362
2/21/2023	0.415

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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
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
2/23/2021	0.2
7/20/2021	0.286
1/31/2022	0.173
7/6/2022	0.208
2/21/2023	0.216

Tukey's Outlier Screening

Constituent: Fluoride (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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
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
2/23/2021	0.208
7/20/2021	0.262
2/1/2022	0.177
7/6/2022	0.173
2/21/2023	0.212

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)
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 (o)
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
2/22/2021	1400
7/12/2021	1560
1/25/2022	1430
7/5/2022	1600
2/20/2023	1520

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-10
4/27/2016	1250
6/23/2016	1010
8/10/2016	992
10/5/2016	1010
11/21/2016	834
1/17/2017	700
3/21/2017	660
5/31/2017	700
8/23/2017	700
5/24/2018	560
11/19/2018	720
5/15/2019	780
10/9/2019	748
4/8/2020	658
7/14/2020	845
2/23/2021	747
7/20/2021	665
2/1/2022	707
7/6/2022	635
2/22/2023	581

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-11
4/26/2016	1750
6/22/2016	1720
8/9/2016	1740
10/4/2016	1750
11/21/2016	1690
1/17/2017	1670
3/21/2017	1900
5/30/2017	1700
8/23/2017	1700
5/22/2018	2200
11/20/2018	1400
5/15/2019	1510
10/10/2019	719
4/6/2020	1400
7/13/2020	1300
2/24/2021	1330
7/21/2021	1420
2/1/2022	1350
7/5/2022	1250
2/21/2023	1290

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-12
4/28/2016	2360
6/22/2016	1960
8/10/2016	2300
10/5/2016	2330
11/22/2016	2220
1/18/2017	1950
3/21/2017	2400
5/31/2017	2200
8/23/2017	2100
5/24/2018	2300
11/19/2018	2100
5/15/2019	2800
10/9/2019	2550
4/6/2020	2580
7/13/2020	2610
2/24/2021	2280
7/20/2021	2500
2/1/2022	2230
7/5/2022	2430
2/22/2023	2440

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)
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
2/22/2021	864
7/12/2021	763
1/25/2022	842
7/5/2022	819
2/20/2023	767

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)
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
2/22/2021	3040
7/12/2021	2380
1/25/2022	2550
7/5/2022	3110
2/20/2023	2110

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-4 (bg)
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
2/22/2021	2040
7/12/2021	1930
1/25/2022	1930
7/5/2022	2380
2/21/2023	1930

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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
2/23/2021	1320
7/20/2021	1170
1/31/2022	1370
7/6/2022	1330
2/21/2023	1450

Tukey's Outlier Screening

Constituent: Sulfate (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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 (o)
11/20/2018	1400
5/15/2019	1640
10/9/2019	1550
4/8/2020	1380
7/15/2020	1410
2/23/2021	1420
7/20/2021	1500
2/1/2022	1500
7/6/2022	1460
2/21/2023	1510

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)
4/26/2016	2080
6/20/2016	2060
8/8/2016	2070
8/24/2016	2040
10/3/2016	2110
10/26/2016	2000
11/21/2016	2070
1/17/2017	1930
3/22/2017	2060
4/18/2017	2140
5/30/2017	2240
8/23/2017	2160
5/22/2018	2380
6/12/2018	2400
10/17/2018	2220
11/19/2018	2360
4/10/2019	2630
5/14/2019	2340
10/8/2019	2330
10/16/2019	3650 (o)
4/6/2020	2240
7/13/2020	2240
2/22/2021	2230
7/12/2021	2210
1/25/2022	2150
7/5/2022	2100
2/20/2023	2280

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-10
4/27/2016	1940
6/23/2016	1680
8/10/2016	1660
10/5/2016	1640
11/21/2016	1390
1/17/2017	1300
3/21/2017	1170
5/31/2017	1210
8/23/2017	1160
5/24/2018	1100
11/19/2018	1220
5/15/2019	1230
10/9/2019	1120
4/8/2020	1120
7/14/2020	1270
2/23/2021	1110
7/20/2021	1080
2/1/2022	1050
7/6/2022	967
2/22/2023	991 (D)

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-11
4/26/2016	2800
6/22/2016	2550
8/9/2016	2860
10/4/2016	2800
11/21/2016	2920
1/17/2017	2750
3/21/2017	2750
5/30/2017	2890
8/23/2017	2760
5/22/2018	2610
11/20/2018	2480
5/15/2019	2560
10/10/2019	2460
4/6/2020	2430
7/13/2020	2400
2/24/2021	2370
7/21/2021	2210
2/1/2022	2200
7/5/2022	2020
2/21/2023	2160 (D)

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-12
4/28/2016	3730
6/22/2016	2760
8/10/2016	3710
10/5/2016	3580
11/22/2016	3400
1/18/2017	3360
3/21/2017	3320
5/31/2017	3440
8/23/2017	3250
5/24/2018	3300
11/19/2018	3400
5/15/2019	3890
10/9/2019	4090
4/6/2020	4060
7/13/2020	4460
2/24/2021	3810
7/20/2021	3680
2/1/2022	3610
7/5/2022	3690
2/22/2023	3880 (D)

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)
4/25/2016	1260
6/20/2016	1620
8/8/2016	1740
8/24/2016	1720
10/3/2016	1800
10/26/2016	1800
11/21/2016	1740
1/17/2017	1960
3/22/2017	1510
4/18/2017	1580
5/31/2017	1730
8/23/2017	1550
5/22/2018	1500
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
2/22/2021	1620
7/12/2021	1390
1/25/2022	1500
7/5/2022	1250
2/20/2023	1420

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)
4/25/2016	2720
6/22/2016	3250
8/9/2016	3050
8/24/2016	3080
10/4/2016	2900
10/26/2016	2940
11/21/2016	3090
1/18/2017	4020
3/22/2017	4180
4/18/2017	4440
5/31/2017	3970
8/23/2017	4050
5/24/2018	3680
6/12/2018	3820
10/17/2018	4730
11/19/2018	4710
4/10/2019	3680
5/14/2019	3580
10/8/2019	4720
10/16/2019	4210
4/6/2020	2630
7/13/2020	3650
2/22/2021	4670
7/12/2021	3510
1/25/2022	3950
7/5/2022	4220
2/20/2023	3230

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	MW-4 (bg)
4/25/2016	3300
6/20/2016	3870
8/9/2016	4140
8/24/2016	4190
10/3/2016	4190
10/26/2016	4400
11/21/2016	4230
1/18/2017	4120
3/22/2017	3980
4/18/2017	3880
5/31/2017	4210
8/23/2017	3990
5/23/2018	3740
6/12/2018	4080
10/17/2018	4250
11/19/2018	3920
4/10/2019	3280
5/14/2019	3130
10/10/2019	4000
10/16/2019	4060
4/6/2020	2820
7/14/2020	3310
2/22/2021	3190
7/12/2021	3000
1/25/2022	3180
7/5/2022	3240
2/21/2023	3160 (D)

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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
2/23/2021	2320
7/20/2021	2110
1/31/2022	2140
7/6/2022	2110
2/21/2023	2220 (D)

Tukey's Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/29/2023 12:49 PM View: Tukey's Outlier Tests
Plant Gorgas Data: Gorgas BALF CCR

	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
2/23/2021	2550
7/20/2021	2420
2/1/2022	2420
7/6/2022	2320
2/21/2023	2370 (D)

Tukey's Outlier Test - Upgradient Wells - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 3:57 PM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Barium (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.0165,0.0162,0.0164,0.0158	NP	NaN	112	0.01116	0.001996	x^5	ChiSquared
Chloride (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	3.7,3.7,3.43,3.31,3.23,3.21,3.35,3.34,3.58,4.4,4.	NP	NaN	112	2.206	0.7844	x^6	ChiSquared
Cobalt (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.103,0.232,0.332,0.311,0.271,0.271,0.148,0.236,0	NP	NaN	112	0.09	0.1615	x^6	ChiSquared
Combined Radium 226 + 228 (pCi/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.934,1.18,1.47,1.01,1.49,1.1,0.994,1.31,0.927,1.	NP	NaN	108	0.496	0.3574	x^6	ChiSquared
Fluoride (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.55,0.6,0.53,0.63,0.415	NP	NaN	116	0.2362	0.1233	x^6	ChiSquared
Lithium (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.0964,0.0964,0.156,0.122,0.138,0.0966,0.134,0.16	NP	NaN	112	0.07633	0.07833	x^6	ChiSquared

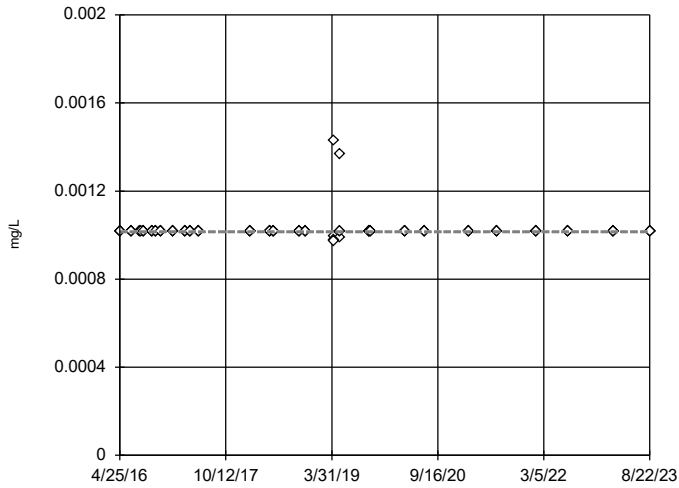
Tukey's Outlier Test - Upgradient Wells - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 3:57 PM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.001021	0.00005191	unknown	ChiSquared
Arsenic (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.0004241	0.0007799	unknown	ChiSquared
Barium (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.0165,0.0162,0.0164,0.0158	NP	NaN	112	0.01116	0.001996	x^5	ChiSquared
Beryllium (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.001859	0.002826	unknown	ChiSquared
Boron (mg/L)	MW-1,MW-2,MW-3,MW-4	No	n/a	NP	NaN	112	0.05418	0.02996	x^6	ChiSquared
Cadmium (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.001476	0.002031	unknown	ChiSquared
Chloride (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	3.7,3.7,3.43,3.31,3.23,3.21,3.35,3.34,3.58,4.4,4.	NP	NaN	112	2.206	0.7844	x^6	ChiSquared
Chromium (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.001144	0.001341	unknown	ChiSquared
Cobalt (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.103,0.232,0.332,0.311,0.271,0.271,0.148,0.236,0	NP	NaN	112	0.09	0.1615	x^6	ChiSquared
Combined Radium 226 + 228 (pCi/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.934,1.18,1.47,1.01,1.49,1.1,0.994,1.31,0.927,1.	NP	NaN	108	0.496	0.3574	x^6	ChiSquared
Fluoride (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.55,0.6,0.53,0.63,0.415	NP	NaN	116	0.2362	0.1233	x^6	ChiSquared
Lead (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.0002733	0.0006442	unknown	ChiSquared
Lithium (mg/L)	MW-1,MW-2,MW-3,MW-4	Yes	0.0964,0.0964,0.156,0.122,0.138,0.0966,0.134,0.16	NP	NaN	112	0.07633	0.07833	x^6	ChiSquared
Mercury (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.0005	0	unknown	ChiSquared
Molybdenum (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.009613	0.002269	unknown	ChiSquared
pH (SU)	MW-1,MW-2,MW-3,MW-4	No	n/a	NP	NaN	114	5.654	0.5255	x^2	ChiSquared
Selenium (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.00331	0.004522	unknown	ChiSquared
Thallium (mg/L)	MW-1,MW-2,MW-3,MW-4	n/a	n/a	NP	NaN	112	0.0002033	0.000002247	unknown	ChiSquared

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

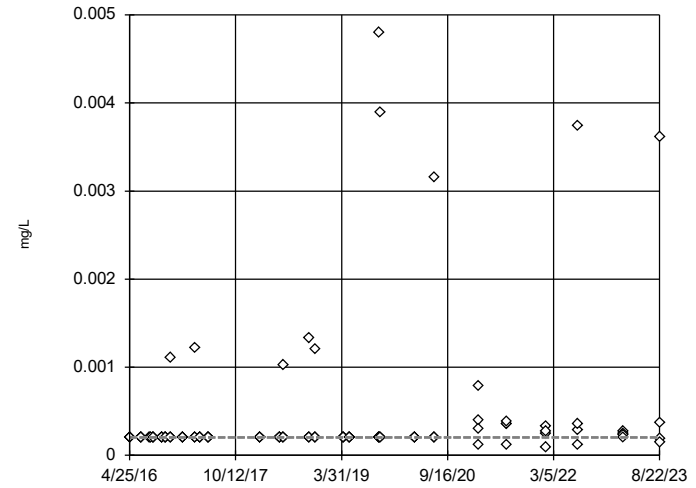


n = 112
 No outliers found.
 Tukey's method selected by user.
 Data were x^5 transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

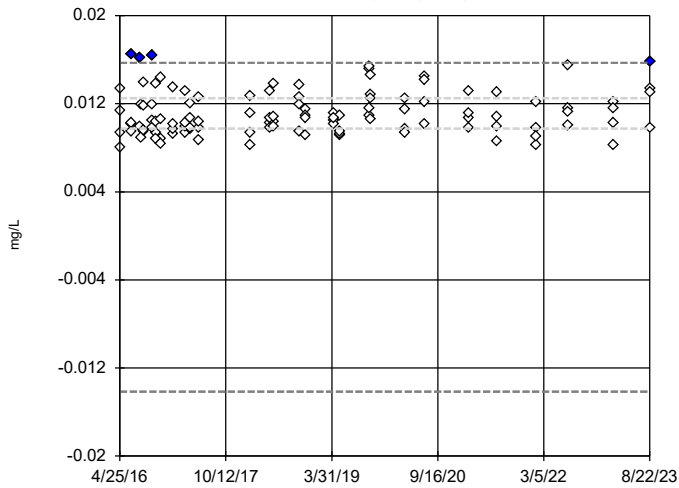


n = 112
 No outliers found.
 Tukey's method selected by user.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Arsenic Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient W
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

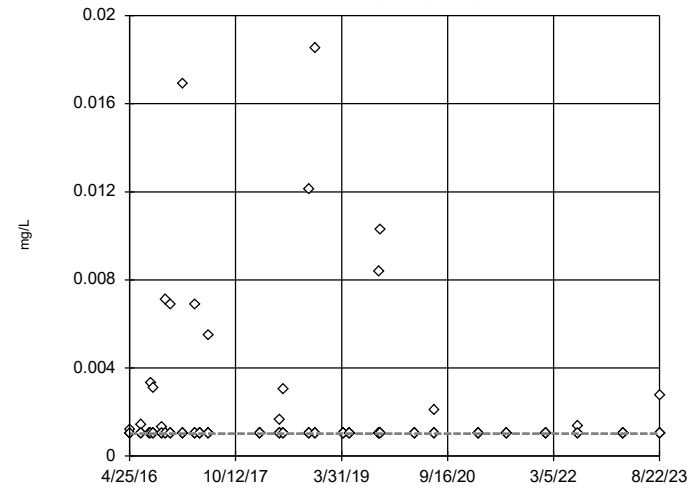


n = 112
 Outliers are drawn as solid.
 Tukey's method selected by user.
 Data were x^5 transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.01571, low cutoff = -0.01414, based on IQR multiplier of 3.

Constituent: Barium Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient We
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

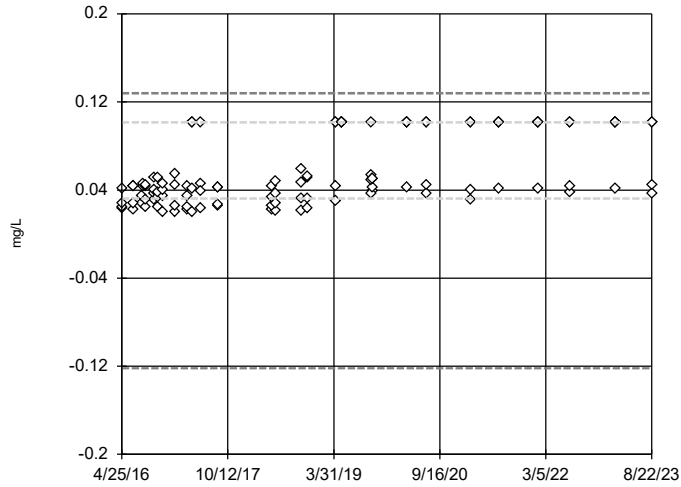


n = 112
 No outliers found.
 Tukey's method selected by user.
 Data were x^6 transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

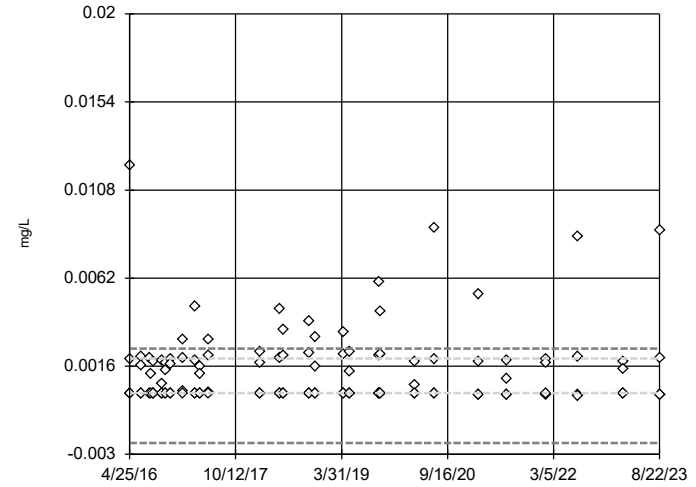


n = 112
 No outliers found.
 Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.1279, low cutoff = -0.1219, based on IQR multiplier of 3.

Constituent: Boron Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient Well
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

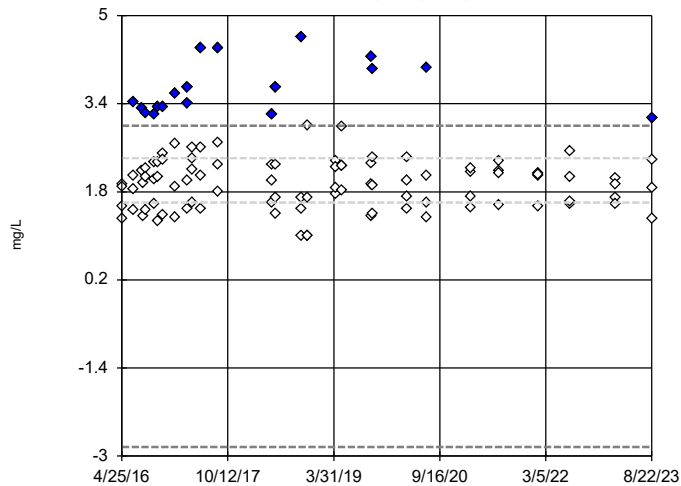


n = 112
 No outliers found.
 Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Cadmium Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

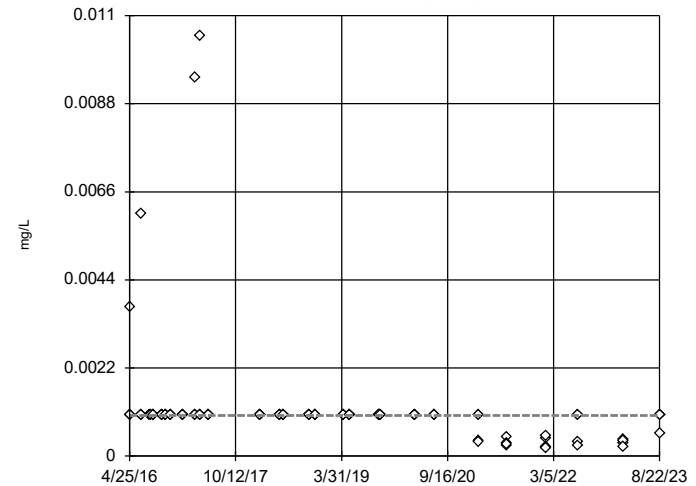


n = 112
 Outliers are drawn as solid.
 Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 3.002, low cutoff = -2.835, based on IQR multiplier of 3.

Constituent: Chloride Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient W
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

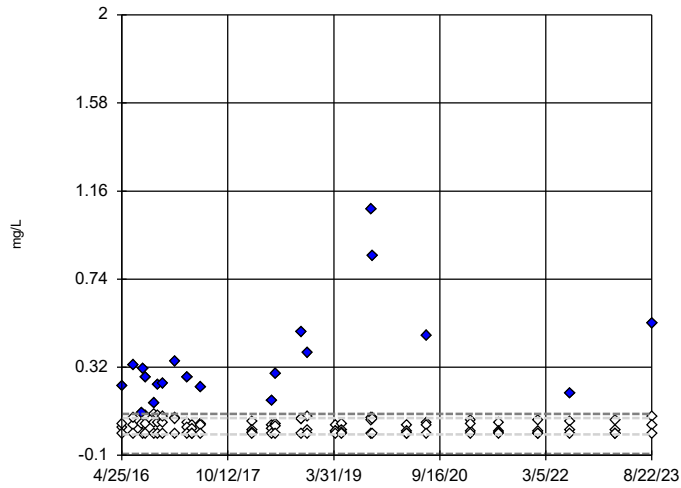


n = 112
 No outliers found.
 Tukey's method selected by user.
 Data were x⁴ transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Chromium Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4



n = 112

Outliers are drawn as solid. Tukey's method selected by user.

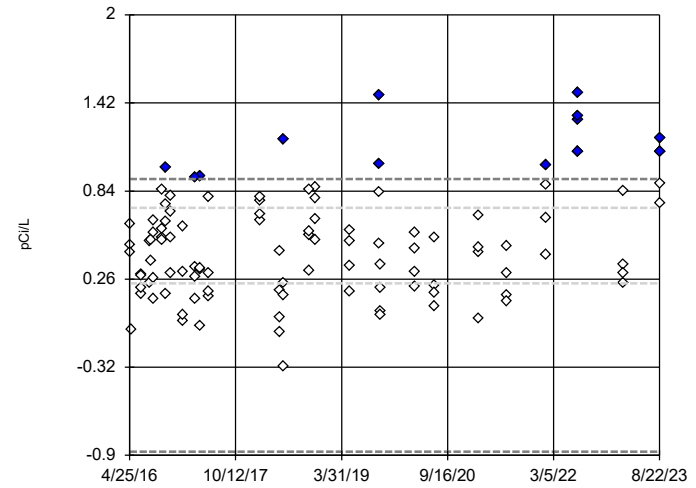
Data were x⁶ transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.0974, low cutoff = -0.09284, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient Wel
Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4



n = 108

Outliers are drawn as solid. Tukey's method selected by user.

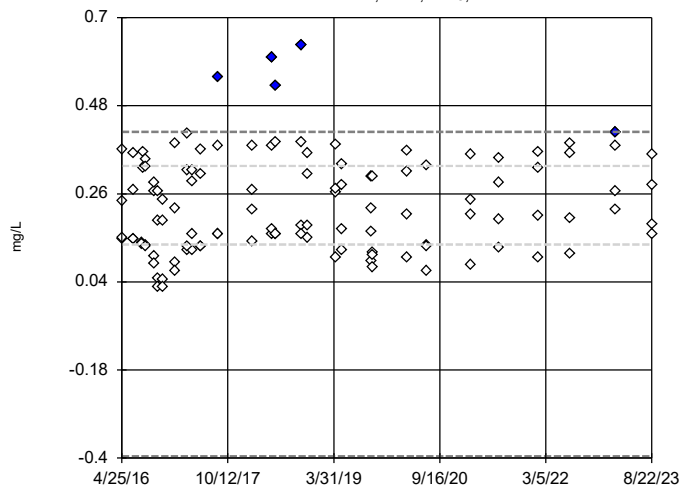
Data were x⁶ transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.9197, low cutoff = -0.8766, based on IQR multiplier of 3.

Constituent: Combined Radium 226 + 228 Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests -
Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4



n = 116

Outliers are drawn as solid. Tukey's method selected by user.

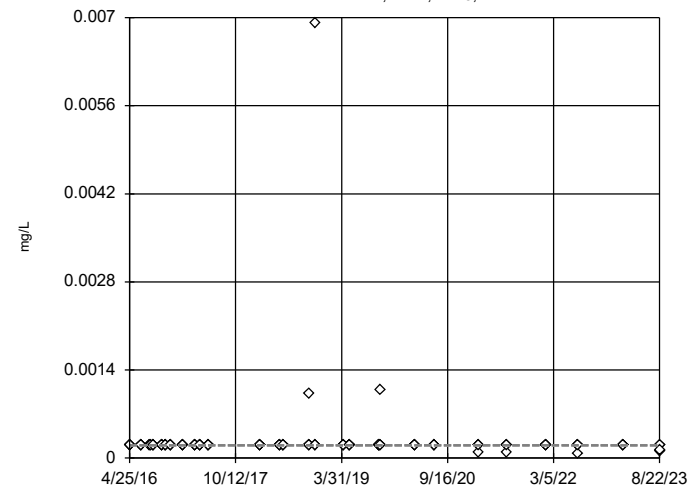
Data were x⁶ transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.4149, low cutoff = -0.3953, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient W
Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4



n = 112

No outliers found. Tukey's method selected by user.

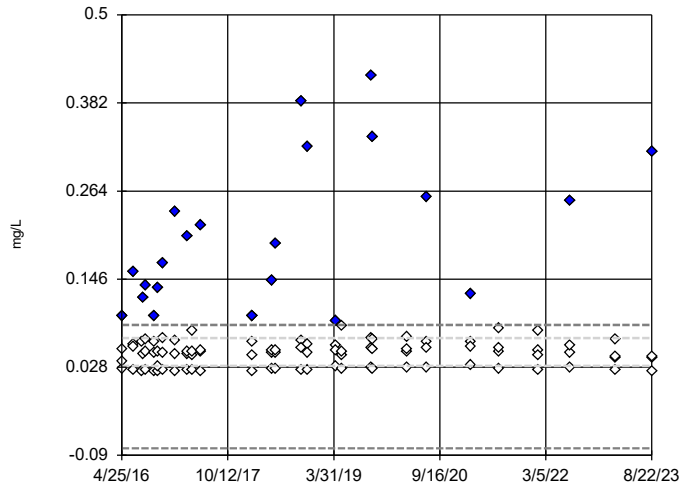
Data were cube transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lead Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

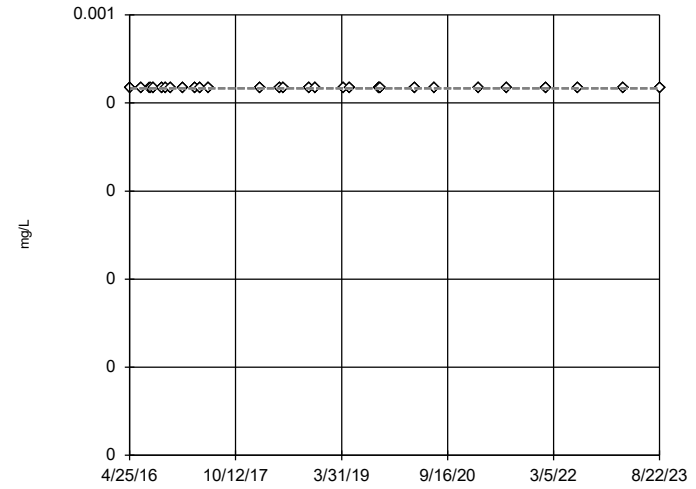


n = 112
 Outliers are drawn as solid. Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.0846, low cutoff = -0.08058, based on IQR multiplier of 3.

Constituent: Lithium Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient We
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

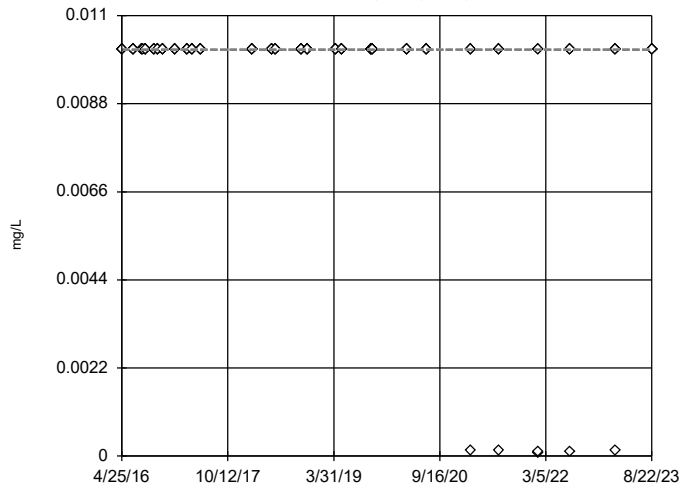


n = 112
 No outliers found. Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradient W
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

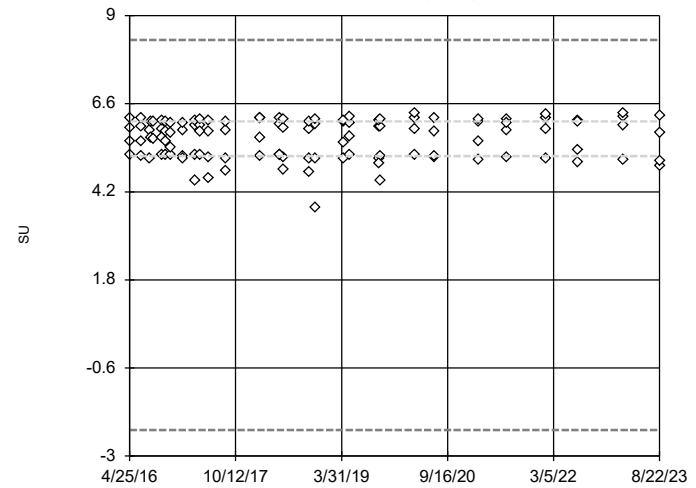


n = 112
 No outliers found. Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 10/2/2023 3:55 PM View: Tukey's Outlier Tests - Pooled Upgradie
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

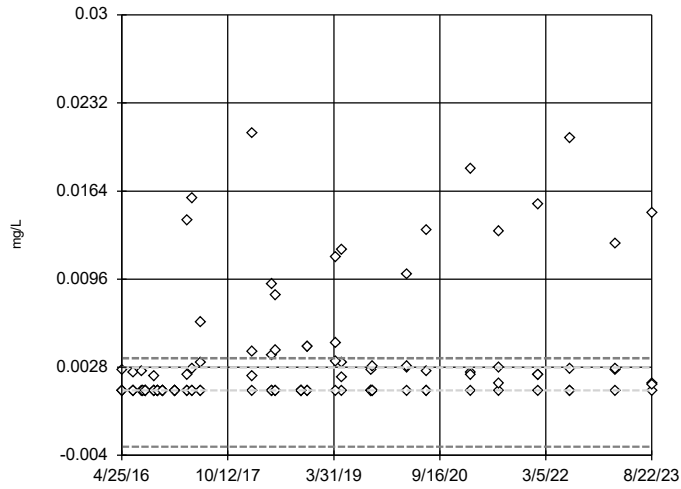


n = 114
 No outliers found. Tukey's method selected by user.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 8.335, low cutoff = -2.289, based on IQR multiplier of 3.

Constituent: pH Analysis Run 10/2/2023 3:56 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4

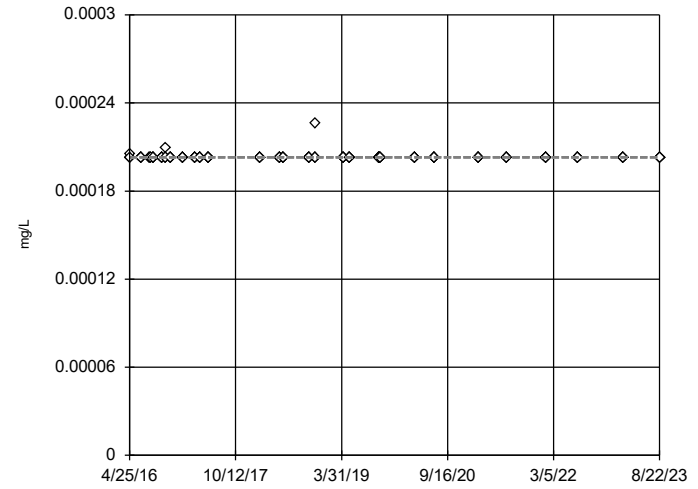


n = 112
 No outliers found.
 Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Selenium Analysis Run 10/2/2023 3:56 PM View: Tukey's Outlier Tests - Pooled Upgradient
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

MW-1,MW-2,MW-3,MW-4



n = 112
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Thallium Analysis Run 10/2/2023 3:56 PM View: Tukey's Outlier Tests - Pooled Upgradient W
 Plant Gorgas Data: Gorgas BALF CCR

Tukey's Outlier Screening, Pooled Background

Constituent: Antimony (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.001015	<0.001015	<0.001015
4/26/2016	<0.001015			
6/20/2016	<0.001015	<0.001015		<0.001015
6/22/2016			<0.001015	
8/8/2016	<0.001015	<0.001015		
8/9/2016			<0.001015	<0.001015
8/24/2016	<0.001015	<0.001015	<0.001015	<0.001015
10/3/2016	<0.001015	<0.001015		<0.001015
10/4/2016			<0.001015	
10/26/2016	<0.001015	<0.001015	<0.001015	<0.001015
11/21/2016	<0.001015	<0.001015	<0.001015	<0.001015
1/17/2017	<0.001015	<0.001015		
1/18/2017			<0.001015	<0.001015
3/22/2017	<0.001015	<0.001015	<0.001015	<0.001015
4/18/2017	<0.001015	<0.001015	<0.001015	<0.001015
5/30/2017	<0.001015			
5/31/2017		<0.001015	<0.001015	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015	<0.001015
5/22/2018	<0.001015	<0.001015		
5/23/2018				<0.001015
5/24/2018			<0.001015	
6/12/2018	<0.001015	<0.001015	<0.001015	<0.001015
10/17/2018	<0.001015	<0.001015	<0.001015	<0.001015
11/19/2018	<0.001015	<0.001015	<0.001015	<0.001015
4/10/2019	0.00143 (J)	0.000993 (J)	0.000978 (J)	0.00097 (J)
5/14/2019	0.00137 (J)	0.000989 (J)	<0.001015	<0.001015
10/8/2019	<0.001015	<0.001015	<0.001015	
10/10/2019				<0.001015
10/16/2019	<0.001015	<0.001015	<0.001015	<0.001015
4/6/2020	<0.001015	<0.001015	<0.001015	<0.001015
7/13/2020	<0.001015	<0.001015	<0.001015	
7/14/2020				<0.001015
2/22/2021	<0.001015	<0.001015	<0.001015	<0.001015
7/12/2021	<0.001015	<0.001015	<0.001015	<0.001015
1/25/2022	<0.001015	<0.001015	<0.001015	<0.001015
7/5/2022	<0.001015	<0.001015	<0.001015	<0.001015
2/20/2023	<0.001015	<0.001015	<0.001015	
2/21/2023				<0.001015
8/22/2023	<0.001015	<0.001015	<0.001015	<0.001015

Tukey's Outlier Screening, Pooled Background

Constituent: Arsenic (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.000203	<0.000203	<0.000203
4/26/2016	<0.000203			
6/20/2016	<0.000203	<0.000203		<0.000203
6/22/2016			<0.000203	
8/8/2016	<0.000203	<0.000203		
8/9/2016			<0.000203	<0.000203
8/24/2016	<0.000203	<0.000203	<0.000203	<0.000203
10/3/2016	<0.000203	<0.000203		<0.000203
10/4/2016			<0.000203	
10/26/2016	<0.000203	<0.000203	<0.000203	<0.000203
11/21/2016	<0.000203	0.00111 (J)	<0.000203	<0.000203
1/17/2017	<0.000203	<0.000203		
1/18/2017			<0.000203	<0.000203
3/22/2017	<0.000203	<0.000203	0.00122 (J)	<0.000203
4/18/2017	<0.000203	<0.000203	<0.000203	<0.000203
5/30/2017	<0.000203			
5/31/2017		<0.000203	<0.000203	<0.000203
2/13/2018	<0.000203	<0.000203	<0.000203	<0.000203
5/22/2018	<0.000203	<0.000203		
5/23/2018				<0.000203
5/24/2018			<0.000203	
6/12/2018	<0.000203	<0.000203	0.00103 (J)	<0.000203
10/17/2018	<0.000203	<0.000203	0.00133 (J)	<0.000203
11/19/2018	<0.000203	<0.000203	0.0012 (J)	<0.000203
4/10/2019	<0.000203	<0.000203	<0.000203	<0.000203
5/14/2019	<0.000203	<0.000203	<0.000203	<0.000203
10/8/2019	<0.000203	<0.000203	0.0048 (J)	
10/10/2019				<0.000203
10/16/2019	<0.000203	<0.000203	0.00389 (J)	<0.000203
4/6/2020	<0.000203	<0.000203	<0.000203	<0.000203
7/13/2020	<0.000203	<0.000203	0.00316 (J)	
7/14/2020				<0.000203
2/22/2021	0.000403	0.000295	0.000789	0.000125 (J)
7/12/2021	0.00036	0.00036	0.00038	0.00012 (J)
1/25/2022	0.00025	0.00033	0.00027	9E-05 (J)
7/5/2022	0.000281	0.00035	0.00374	0.000118 (J)
2/20/2023	0.000275	0.000243	0.000224	
2/21/2023				<0.000203
8/22/2023	0.000187 (J)	0.000371	0.00361	0.000145 (J)

Tukey's Outlier Screening, Pooled Background

Constituent: Barium (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	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 (O)		0.0103
6/22/2016			0.0101	
8/8/2016	0.00991 (J)	0.0162 (O)		
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 (O)		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
2/22/2021	0.0107	0.0132	0.00981	0.0111
7/12/2021	0.00991	0.013	0.00857	0.0108
1/25/2022	0.0098	0.0122	0.00821	0.00908
7/5/2022	0.01	0.0116	0.0155	0.0113
2/20/2023	0.0102	0.0122	0.00822	
2/21/2023				0.0116
8/22/2023	0.00976	0.0134	0.0158 (O)	0.013

Tukey's Outlier Screening, Pooled Background

Constituent: Beryllium (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.001015	0.00122 (J)	<0.001015
4/26/2016	<0.001015			
6/20/2016	<0.001015	<0.001015		<0.001015
6/22/2016			0.00144 (J)	
8/8/2016	<0.001015	<0.001015		
8/9/2016			0.00331	<0.001015
8/24/2016	<0.001015	<0.001015	0.00308	<0.001015
10/3/2016	<0.001015	<0.001015		<0.001015
10/4/2016			0.00129 (J)	
10/26/2016	<0.001015	<0.001015	0.0071	<0.001015
11/21/2016	<0.001015	<0.001015	0.00689	<0.001015
1/17/2017	<0.001015	<0.001015		
1/18/2017			0.0169 (O)	<0.001015
3/22/2017	<0.001015	<0.001015	0.00686	<0.001015
4/18/2017	<0.001015	<0.001015	<0.001015	<0.001015
5/30/2017	<0.001015			
5/31/2017		<0.001015	0.00547	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015	<0.001015
5/22/2018	<0.001015	<0.001015		
5/23/2018				<0.001015
5/24/2018			0.00164 (J)	
6/12/2018	<0.001015	<0.001015	0.00306	<0.001015
10/17/2018	<0.001015	<0.001015	0.0121	<0.001015
11/19/2018	<0.001015	<0.001015	0.0185 (O)	<0.001015
4/10/2019	<0.001015	<0.001015	<0.001015	<0.001015
5/14/2019	<0.001015	<0.001015	<0.001015	<0.001015
10/8/2019	<0.001015	<0.001015	0.0084	
10/10/2019				<0.001015
10/16/2019	<0.001015	<0.001015	0.0103	<0.001015
4/6/2020	<0.001015	<0.001015	<0.001015	<0.001015
7/13/2020	<0.001015	<0.001015	0.0021 (J)	
7/14/2020				<0.001015
2/22/2021	<0.001015	<0.001015	<0.001015	<0.001015
7/12/2021	<0.001015	<0.001015	<0.001015	<0.001015
1/25/2022	<0.001015	<0.001015	<0.001015	<0.001015
7/5/2022	<0.001015	<0.001015	0.00139	<0.001015
2/20/2023	<0.001015	<0.001015	<0.001015	
2/21/2023				<0.001015
8/22/2023	<0.001015	<0.001015	0.00277	<0.001015

Tukey's Outlier Screening, Pooled Background

Constituent: Boron (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	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	<0.1015	0.0206 (J)	<0.1015	0.0409 (J)
5/30/2017	<0.1015			
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)	<0.1015	<0.1015	0.0438 (J)
5/14/2019	<0.1015	<0.1015	<0.1015	<0.1015 (o)
10/8/2019	<0.1015	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	<0.1015	<0.1015	<0.1015	0.0428 (J)
7/13/2020	<0.1015	<0.1015	0.0366 (J)	
7/14/2020				0.0441 (J)
2/22/2021	0.0307 (J)	<0.1015	<0.1015	0.0397 (J)
7/12/2021	<0.1015	<0.1015	<0.1015	0.0411 (J)
1/25/2022	<0.1015	<0.1015	<0.1015	0.0408 (J)
7/5/2022	<0.1015	<0.1015	0.0374 (J)	0.0433 (J)
2/20/2023	<0.1015	<0.1015	<0.1015	
2/21/2023				0.0408 (J)
8/22/2023	<0.1015	<0.1015	0.0373 (J)	0.0448 (J)

Tukey's Outlier Screening, Pooled Background

Constituent: Cadmium (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.000203	0.0121 (O)	<0.000203
4/26/2016	0.00196			
6/20/2016	0.0021	<0.000203		<0.000203
6/22/2016			0.00163	
8/8/2016	0.00206	<0.000203		
8/9/2016			0.00122	<0.000203
8/24/2016	0.00182	<0.000203	<0.000203	<0.000203
10/3/2016	0.00188	<0.000203		<0.000203
10/4/2016			0.000689 (J)	
10/26/2016	0.00175	<0.000203	0.00136	<0.000203
11/21/2016	0.00197	<0.000203	0.00171	<0.000203
1/17/2017	0.002	0.000311 (J)		
1/18/2017			0.003	<0.000203
3/22/2017	0.0019	<0.000203	0.00473	<0.000203
4/18/2017	0.00159	<0.000203	0.00117	<0.000203
5/30/2017	0.00214			
5/31/2017		0.000212 (J)	0.00296	<0.000203
2/13/2018	0.0018	<0.000203	0.00232	<0.000203
5/22/2018	0.00201	<0.000203		
5/23/2018				<0.000203
5/24/2018			0.00459	
6/12/2018	0.00217	<0.000203	0.00351	<0.000203
10/17/2018	0.00228	<0.000203	0.00393	<0.000203
11/19/2018	0.00156	<0.000203	0.00309	<0.000203
4/10/2019	0.00224	<0.000203	0.00337	<0.000203
5/14/2019	0.00238	<0.000203	0.0013	<0.000203
10/8/2019	0.00218	<0.000203	0.00598	
10/10/2019				<0.000203
10/16/2019	0.00225	<0.000203	0.00448	<0.000203
4/6/2020	0.00184	<0.000203	0.000645 (J)	<0.000203
7/13/2020	0.00194	<0.000203	0.00885	
7/14/2020				<0.000203
2/22/2021	0.00184	8.96E-05 (J)	0.00536	8.96E-05 (J)
7/12/2021	0.00193	8E-05 (J)	0.00094	8E-05 (J)
1/25/2022	0.00196	8E-05 (J)	0.00178	<0.000203
7/5/2022	0.00211	8.4E-05 (J)	0.00835	7.5E-05 (J)
2/20/2023	0.00185	<0.000203	0.00144	
2/21/2023				<0.000203
8/22/2023	0.00205	8.5E-05 (J)	0.00867	8.5E-05 (J)

Tukey's Outlier Screening, Pooled Background

Constituent: Chloride (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	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 (O)		1.85
6/22/2016			1.46	
8/8/2016	2.18	3.31 (O)		
8/9/2016			1.35	1.95
8/24/2016	2.22	3.23 (O)	1.47	2.07
10/3/2016	2.34	3.21 (O)		2.02
10/4/2016			1.59	
10/26/2016	2.34	3.35 (O)	1.27	2.07
11/21/2016	2.5	3.34 (O)	1.38	2.39
1/17/2017	2.68	3.58 (O)		
1/18/2017			1.34	1.9
3/22/2017	3.7 (O)	3.4 (O)	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 (O)	1.5 (J)	2.1
8/23/2017	2.7	4.4 (O)	1.8 (J)	2.3
5/22/2018	2.3	3.2 (O)		
5/23/2018				2
5/24/2018			1.6 (J)	
6/12/2018	2.3	3.7 (O)	1.4 (J)	1.7 (J)
10/17/2018	1.7 (J)	4.6 (O)	<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 (O)	1.36	
10/10/2019				1.93
10/16/2019	2.42	4.04 (O)	1.4	1.92
4/6/2020	2.01	2.43	1.72	1.5
7/13/2020	2.1	4.05 (O)	1.34	
7/14/2020				1.61
2/22/2021	2.16	1.72	2.22	1.52
7/12/2021	2.19	2.36	2.13	1.56
1/25/2022	2.09	2.14	2.12	1.54
7/5/2022	2.07	2.53	1.59	1.63
2/20/2023	2.05	1.7	1.94	
2/21/2023				1.58
8/22/2023	2.38	3.13 (O)	1.31	1.86

Tukey's Outlier Screening, Pooled Background

Constituent: Chromium (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.001015	0.00373 (J)	<0.001015
4/26/2016	<0.001015			
6/20/2016	<0.001015	<0.001015		<0.001015
6/22/2016			0.00606 (J)	
8/8/2016	<0.001015	<0.001015		
8/9/2016			<0.001015	<0.001015
8/24/2016	<0.001015	<0.001015	<0.001015	<0.001015
10/3/2016	<0.001015	<0.001015		<0.001015
10/4/2016			<0.001015	
10/26/2016	<0.001015	<0.001015	<0.001015	<0.001015
11/21/2016	<0.001015	<0.001015	<0.001015	<0.001015
1/17/2017	<0.001015	<0.001015		
1/18/2017			<0.001015	<0.001015
3/22/2017	<0.001015	<0.001015	0.00945 (J)	<0.001015
4/18/2017	<0.001015	<0.001015	0.0105	<0.001015
5/30/2017	<0.001015			
5/31/2017		<0.001015	<0.001015	<0.001015
2/13/2018	<0.001015	<0.001015	<0.001015	<0.001015
5/22/2018	<0.001015	<0.001015		
5/23/2018				<0.001015
5/24/2018			<0.001015	
6/12/2018	<0.001015	<0.001015	<0.001015	<0.001015
10/17/2018	<0.001015	<0.001015	<0.001015	<0.001015
11/19/2018	<0.001015	<0.001015	<0.001015	<0.001015
4/10/2019	<0.001015	<0.001015	<0.001015	<0.001015
5/14/2019	<0.001015	<0.001015	<0.001015	<0.001015
10/8/2019	<0.001015	<0.001015	<0.001015	
10/10/2019				<0.001015
10/16/2019	<0.001015	<0.001015	<0.001015	<0.001015
4/6/2020	<0.001015	<0.001015	<0.001015	<0.001015
7/13/2020	<0.001015	<0.001015	<0.001015	
7/14/2020				<0.001015
2/22/2021	0.000382 (J)	<0.001015	0.00035 (J)	<0.001015
7/12/2021	0.00049 (J)	0.00025 (J)	0.00031 (J)	0.0003 (J)
1/25/2022	0.00043 (J)	0.00022 (J)	0.00051 (J)	0.00021 (J)
7/5/2022	0.000364 (J)	<0.001015	0.00025 (J)	<0.001015
2/20/2023	0.000409 (J)	0.00033 (J)	0.000384 (J)	
2/21/2023				0.000244 (J)
8/22/2023	<0.001015	<0.001015	<0.001015	0.000571 (J)

Tukey's Outlier Screening, Pooled Background

Constituent: Cobalt (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		0.0487	0.232 (O)	<0.000203
4/26/2016	0.0343			
6/20/2016	0.0413	0.0767		<0.000203
6/22/2016			0.332 (O)	
8/8/2016	0.0513	0.103 (O)		
8/9/2016			0.311 (O)	<0.000203
8/24/2016	0.0471	0.093	0.271 (O)	<0.000203
10/3/2016	0.0525	0.0964		<0.000203
10/4/2016			0.148 (O)	
10/26/2016	0.0527	0.0904	0.236 (O)	<0.000203
11/21/2016	0.0569	0.0857	0.241 (O)	<0.000203
1/17/2017	0.0768	0.0745		
1/18/2017			0.347 (O)	<0.000203
3/22/2017	0.0535	0.0328	0.271 (O)	<0.000203
4/18/2017	0.0442	0.0242	0.00324 (J)	<0.000203
5/30/2017	0.0465			
5/31/2017		0.0441	0.225 (O)	<0.000203
2/13/2018	0.062	0.0179	0.00661 (J)	<0.000203
5/22/2018	0.0443	0.028		
5/23/2018				<0.000203
5/24/2018			0.158 (O)	
6/12/2018	0.0512	0.0366	0.291 (O)	<0.000203
10/17/2018	0.0751	0.0745	0.49 (O)	<0.000203
11/19/2018	0.0825	0.0225	0.386 (O)	<0.000203
4/10/2019	0.0445	0.0152	0.0144	<0.000203
5/14/2019	0.0485	0.0222	0.00536	<0.000203
10/8/2019	0.0778	0.0674	1.07 (o)	
10/10/2019				<0.000203
10/16/2019	0.08	0.073	0.848 (o)	<0.000203
4/6/2020	0.0417	0.0116	<0.000203	<0.000203
7/13/2020	0.0532	0.0405	0.47 (O)	
7/14/2020				<0.000203
2/22/2021	0.0657	0.0161	0.0515	<0.000203
7/12/2021	0.0556	0.0155	0.00567	<0.000203
1/25/2022	0.0654	0.0166	0.0051	<0.000203
7/5/2022	0.0627	0.0184	0.195 (O)	<0.000203
2/20/2023	0.0665	0.0187	0.00435	
2/21/2023				<0.000203
8/22/2023	0.086	0.0434	0.529 (O)	0.000142 (J)

Tukey's Outlier Screening, Pooled Background

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	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 (O)	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 (O)	0.132 (U)
4/18/2017	0.934 (O)	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 (O)	-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 (O)	0.493 (U)	0.833 (U)	
10/10/2019				1.02 (UO)
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)
2/22/2021	0.677 (U)	0.434 (U)	0.472 (U)	0 (U)
7/12/2021	0.476 (U)	0.155 (U)	0.114 (U)	0.301 (U)
1/25/2022	1.01 (UO)	0.663 (U)	0.418 (U)	0.884 (U)
7/5/2022	1.49 (O)	1.31 (O)	1.33 (O)	1.1 (O)
2/20/2023	0.36 (U)	0.837 (U)	0.234 (U)	
2/21/2023				0.3 (U)
8/22/2023	1.1 (UO)	0.763 (U)	1.19 (UO)	0.887 (U)

Tukey's Outlier Screening, Pooled Background

Constituent: Fluoride (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	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 (O)	0.38
2/13/2018	0.14	0.22	0.27	0.38
5/22/2018	0.16	0.17		
5/23/2018				0.38
5/24/2018			0.6 (O)	
6/12/2018	0.16	0.16	0.53 (O)	0.39
10/17/2018	0.18	0.16	0.63 (O)	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
2/22/2021	0.082 (J)	0.209	0.246	0.357
7/12/2021	0.125	0.196	0.287	0.35
1/25/2022	0.101	0.204	0.325	0.364
7/5/2022	0.11 (J)	0.2	0.386	0.362
2/20/2023	0.221	0.267	0.379	
2/21/2023				0.415 (O)
8/22/2023	0.159	0.184	0.283	0.358

Tukey's Outlier Screening, Pooled Background

Constituent: Lead (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.000203	<0.000203	<0.000203
4/26/2016	<0.000203			
6/20/2016	<0.000203	<0.000203		<0.000203
6/22/2016			<0.000203	
8/8/2016	<0.000203	<0.000203		
8/9/2016			<0.000203	<0.000203
8/24/2016	<0.000203	<0.000203	<0.000203	<0.000203
10/3/2016	<0.000203	<0.000203		<0.000203
10/4/2016			<0.000203	
10/26/2016	<0.000203	<0.000203	<0.000203	<0.000203
11/21/2016	<0.000203	<0.000203	<0.000203	<0.000203
1/17/2017	<0.000203	<0.000203		
1/18/2017			<0.000203	<0.000203
3/22/2017	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2017	<0.000203	<0.000203	<0.000203	<0.000203
5/30/2017	<0.000203			
5/31/2017		<0.000203	<0.000203	<0.000203
2/13/2018	<0.000203	<0.000203	<0.000203	<0.000203
5/22/2018	<0.000203	<0.000203		
5/23/2018				<0.000203
5/24/2018			<0.000203	
6/12/2018	<0.000203	<0.000203	<0.000203	<0.000203
10/17/2018	<0.000203	<0.000203	0.00102 (J)	<0.000203
11/19/2018	<0.000203	<0.000203	0.00692 (o)	<0.000203
4/10/2019	<0.000203	<0.000203	<0.000203	<0.000203
5/14/2019	<0.000203	<0.000203	<0.000203	<0.000203
10/8/2019	<0.000203	<0.000203	<0.000203	
10/10/2019				<0.000203
10/16/2019	<0.000203	<0.000203	0.00108 (J)	<0.000203
4/6/2020	<0.000203	<0.000203	<0.000203	<0.000203
7/13/2020	<0.000203	<0.000203	<0.000203	
7/14/2020				<0.000203
2/22/2021	<0.000203	<0.000203	8.8E-05 (J)	<0.000203
7/12/2021	<0.000203	<0.000203	8E-05 (J)	<0.000203
1/25/2022	<0.000203	<0.000203	<0.000203	<0.000203
7/5/2022	<0.000203	<0.000203	7.3E-05 (J)	<0.000203
2/20/2023	<0.000203	<0.000203	<0.000203	
2/21/2023				<0.000203
8/22/2023	<0.000203	<0.000203	0.000105 (J)	0.000136 (J)

Tukey's Outlier Screening, Pooled Background

Constituent: Lithium (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		0.0353 (J)	0.0964 (O)	0.0528
4/26/2016	0.0264 (J)			
6/20/2016	0.0246 (J)	0.0583		0.0554
6/22/2016			0.156 (O)	
8/8/2016	0.0229 (J)	0.0627		
8/9/2016			0.122 (O)	0.0452 (J)
8/24/2016	0.0236 (J)	0.0651	0.138 (O)	0.0488 (J)
10/3/2016	0.0229 (J)	0.0622		0.0476 (J)
10/4/2016			0.0966 (O)	
10/26/2016	0.0227 (J)	0.0293 (J)	0.134 (O)	0.049 (J)
11/21/2016	0.0236 (J)	0.0667	0.167 (O)	0.0477 (J)
1/17/2017	0.0228 (J)	0.0636		
1/18/2017			0.237 (O)	0.045 (J)
3/22/2017	0.0238 (J)	0.0464 (J)	0.203 (O)	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 (O)	0.0501
2/13/2018	0.0233 (J)	0.0615	0.0964 (O)	0.0446 (J)
5/22/2018	0.0263 (J)	0.0465 (J)		
5/23/2018				0.0513
5/24/2018			0.145 (O)	
6/12/2018	0.0251 (J)	0.0472 (J)	0.194 (O)	0.0511
10/17/2018	0.025 (J)	0.0633	0.384 (O)	0.0532
11/19/2018	0.0241	0.0584	0.323 (O)	0.0467
4/10/2019	0.0285	0.0574	0.0905 (O)	0.0504
5/14/2019	0.026 (J)	0.0445	0.0828	0.0485
10/8/2019	0.0268	0.0677	0.419 (O)	
10/10/2019				0.054
10/16/2019	0.0263	0.0661	0.337 (O)	0.052
4/6/2020	0.0278	0.0496	0.0689	0.0519
7/13/2020	0.028	0.0615	0.256 (O)	
7/14/2020				0.0543
2/22/2021	0.0301	0.0625	0.126 (O)	0.0558
7/12/2021	0.0266	0.0495	0.0808	0.0533
1/25/2022	0.0239	0.051	0.077	0.0433
7/5/2022	0.0274	0.0469	0.251 (O)	0.0566
2/20/2023	0.0241	0.0412	0.0649	
2/21/2023				0.0424
8/22/2023	0.0225	0.0404	0.316 (O)	0.0416

Tukey's Outlier Screening, Pooled Background

Constituent: Mercury (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

	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
2/22/2021	<0.0005	<0.0005	<0.0005	<0.0005
7/12/2021	<0.0005	<0.0005	<0.0005	<0.0005
1/25/2022	<0.0005	<0.0005	<0.0005	<0.0005
7/5/2022	<0.0005	<0.0005	<0.0005	<0.0005
2/20/2023	<0.0005	<0.0005	<0.0005	
2/21/2023				<0.0005
8/22/2023	<0.0005	<0.0005	<0.0005	<0.0005

Tukey's Outlier Screening, Pooled Background

Constituent: Molybdenum (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.01015	<0.01015	<0.01015
4/26/2016	<0.01015			
6/20/2016	<0.01015	<0.01015		<0.01015
6/22/2016			<0.01015	
8/8/2016	<0.01015	<0.01015		
8/9/2016			<0.01015	<0.01015
8/24/2016	<0.01015	<0.01015	<0.01015	<0.01015
10/3/2016	<0.01015	<0.01015		<0.01015
10/4/2016			<0.01015	
10/26/2016	<0.01015	<0.01015	<0.01015	<0.01015
11/21/2016	<0.01015	<0.01015	<0.01015	<0.01015
1/17/2017	<0.01015	<0.01015		
1/18/2017			<0.01015	<0.01015
3/22/2017	<0.01015	<0.01015	<0.01015	<0.01015
4/18/2017	<0.01015	<0.01015	<0.01015	<0.01015
5/30/2017	<0.01015			
5/31/2017		<0.01015	<0.01015	<0.01015
2/13/2018	<0.01015	<0.01015	<0.01015	<0.01015
5/22/2018	<0.01015	<0.01015		
5/23/2018				<0.01015
5/24/2018			<0.01015	
6/12/2018	<0.01015	<0.01015	<0.01015	<0.01015
10/17/2018	<0.01015	<0.01015	<0.01015	<0.01015
11/19/2018	<0.01015	<0.01015	<0.01015	<0.01015
4/10/2019	<0.01015	<0.01015	<0.01015	<0.01015
5/14/2019	<0.01015	<0.01015	<0.01015	<0.01015
10/8/2019	<0.01015	<0.01015	<0.01015	
10/10/2019				<0.01015
10/16/2019	<0.01015	<0.01015	<0.01015	<0.01015
4/6/2020	<0.01015	<0.01015	<0.01015	<0.01015
7/13/2020	<0.01015	<0.01015	<0.01015	
7/14/2020				<0.01015
2/22/2021	<0.01015	<0.01015	<0.01015	0.000131 (J)
7/12/2021	<0.01015	<0.01015	<0.01015	0.00014 (J)
1/25/2022	<0.01015	<0.01015	8E-05 (J)	0.00011 (J)
7/5/2022	<0.01015	<0.01015	<0.01015	0.000108 (J)
2/20/2023	<0.01015	<0.01015	<0.01015	
2/21/2023				0.00015 (J)
8/22/2023	<0.01015	<0.01015	<0.01015	<0.01015

Tukey's Outlier Screening, Pooled Background

Constituent: pH (SU) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells

Plant Gorgas Data: Gorgas BALF CCR

	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 (Eo)	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
2/22/2021	5.06	6.1	5.59	6.19
7/12/2021	5.13	6.16	5.86	6.06
1/25/2022	5.11	6.22	5.9	6.3
7/5/2022	5.01	6.15	5.34	6.12
2/20/2023	5.07	6.24	6.01	
2/21/2023				6.35
8/22/2023	4.92	5.81	5.04	6.28

Tukey's Outlier Screening, Pooled Background

Constituent: Selenium (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.001015	<0.001015	<0.001015
4/26/2016	0.00261 (J)			
6/20/2016	0.00242 (J)	<0.001015		<0.001015
6/22/2016			<0.001015	
8/8/2016	0.00253 (J)	<0.001015		
8/9/2016			<0.001015	<0.001015
8/24/2016	<0.001015	<0.001015	<0.001015	<0.001015
10/3/2016	0.00211 (J)	<0.001015		<0.001015
10/4/2016			<0.001015	
10/26/2016	<0.001015	<0.001015	<0.001015	<0.001015
11/21/2016	<0.001015	<0.001015	<0.001015	<0.001015
1/17/2017	<0.001015	<0.001015		
1/18/2017			<0.001015	<0.001015
3/22/2017	0.0022 (J)	<0.001015	0.0141	<0.001015
4/18/2017	0.0027 (J)	<0.001015	0.0158	<0.001015
5/30/2017	0.00316 (J)			
5/31/2017		<0.001015	0.00632 (J)	<0.001015
2/13/2018	0.00211 (J)	<0.001015	0.0209	0.00403 (J)
5/22/2018	0.00372 (J)	<0.001015		
5/23/2018				<0.001015
5/24/2018			0.00918 (J)	
6/12/2018	0.00409 (J)	<0.001015	0.00836 (J)	<0.001015
10/17/2018	<0.001015	<0.001015	<0.001015	<0.001015
11/19/2018	<0.001015	<0.001015	0.00439 (J)	0.00436 (J)
4/10/2019	0.00471 (J)	0.00322 (J)	0.0113	<0.001015
5/14/2019	0.00316 (J)	<0.001015	0.0119	0.00201 (J)
10/8/2019	<0.001015	<0.001015	0.00256 (J)	
10/10/2019				<0.001015
10/16/2019	<0.001015	<0.001015	0.00286 (J)	<0.001015
4/6/2020	0.00275 (J)	<0.001015	0.01	0.00284 (J)
7/13/2020	0.00245 (J)	<0.001015	0.0134	
7/14/2020				<0.001015
2/22/2021	0.00241	<0.001015	0.0181	0.00222
7/12/2021	0.0028	<0.001015	0.0133	0.00155
1/25/2022	0.00216	<0.001015	0.0154	0.00224
7/5/2022	0.00269	<0.001015	0.0205	0.000961 (J)
2/20/2023	0.00258	<0.001015	0.0123	
2/21/2023				0.00266
8/22/2023	0.00151	<0.001015	0.0147	0.00148

Tukey's Outlier Screening, Pooled Background

Constituent: Thallium (mg/L) Analysis Run 10/2/2023 3:57 PM View: Tukey's Outlier Tests - Pooled Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016		<0.000203	0.000205 (J)	<0.000203
4/26/2016	<0.000203			
6/20/2016	<0.000203	<0.000203		<0.000203
6/22/2016			<0.000203	
8/8/2016	<0.000203	<0.000203		
8/9/2016			<0.000203	<0.000203
8/24/2016	<0.000203	<0.000203	<0.000203	<0.000203
10/3/2016	<0.000203	<0.000203		<0.000203
10/4/2016			<0.000203	
10/26/2016	<0.000203	<0.000203	0.000209 (J)	<0.000203
11/21/2016	<0.000203	<0.000203	<0.000203	<0.000203
1/17/2017	<0.000203	<0.000203		
1/18/2017			<0.000203	<0.000203
3/22/2017	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2017	<0.000203	<0.000203	<0.000203	<0.000203
5/30/2017	<0.000203			
5/31/2017		<0.000203	<0.000203	<0.000203
2/13/2018	<0.000203	<0.000203	<0.000203	<0.000203
5/22/2018	<0.000203	<0.000203		
5/23/2018				<0.000203
5/24/2018			<0.000203	
6/12/2018	<0.000203	<0.000203	<0.000203	<0.000203
10/17/2018	<0.000203	<0.000203	<0.000203	<0.000203
11/19/2018	<0.000203	<0.000203	0.000226 (J)	<0.000203
4/10/2019	<0.000203	<0.000203	<0.000203	<0.000203
5/14/2019	<0.000203	<0.000203	<0.000203	<0.000203
10/8/2019	<0.000203	<0.000203	<0.000203	
10/10/2019				<0.000203
10/16/2019	<0.000203	<0.000203	<0.000203	<0.000203
4/6/2020	<0.000203	<0.000203	<0.000203	<0.000203
7/13/2020	<0.000203	<0.000203	<0.000203	
7/14/2020				<0.000203
2/22/2021	<0.000203	<0.000203	<0.000203	<0.000203
7/12/2021	<0.000203	<0.000203	<0.000203	<0.000203
1/25/2022	<0.000203	<0.000203	<0.000203	<0.000203
7/5/2022	<0.000203	<0.000203	<0.000203	<0.000203
2/20/2023	<0.000203	<0.000203	<0.000203	
2/21/2023				<0.000203
8/22/2023	<0.000203	<0.000203	<0.000203	<0.000203

FIGURE D.

Welch's t-test/Mann-Whitney - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/4/2023, 2:06 PM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-11	-2.742	Yes	0.01	Mann-W
Calcium (mg/L)	MW-12	-2.795	Yes	0.01	Mann-W
Fluoride (mg/L)	MW-12	3.514	Yes	0.01	Mann-W
Sulfate (mg/L)	MW-2 (bg)	-2.766	Yes	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-10	-3.072	Yes	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-11	-3.073	Yes	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-4 (bg)	-2.628	Yes	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-8	-2.792	Yes	0.01	Mann-W

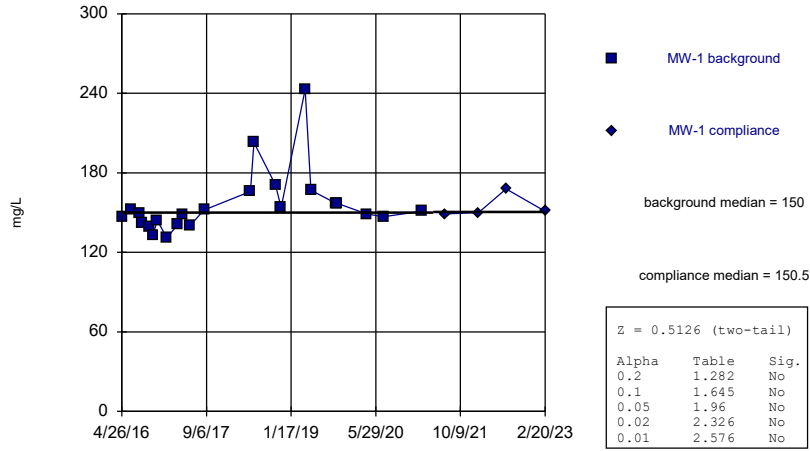
Welch's t-test/Mann-Whitney - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/4/2023, 2:06 PM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-1 (bg)	0.5126	No	0.01	Mann-W
Calcium (mg/L)	MW-10	-1.607	No	0.01	Mann-W
Calcium (mg/L)	MW-11	-2.742	Yes	0.01	Mann-W
Calcium (mg/L)	MW-12	-2.795	Yes	0.01	Mann-W
Calcium (mg/L)	MW-2 (bg)	-0.7518	No	0.01	Mann-W
Calcium (mg/L)	MW-3 (bg)	-0.9217	No	0.01	Mann-W
Calcium (mg/L)	MW-4 (bg)	-2.253	No	0.01	Mann-W
Calcium (mg/L)	MW-7	-2.084	No	0.01	Mann-W
Calcium (mg/L)	MW-8	-0.3785	No	0.01	Mann-W
Fluoride (mg/L)	MW-1 (bg)	0.3942	No	0.01	Mann-W
Fluoride (mg/L)	MW-10	-0.0448	No	0.01	Mann-W
Fluoride (mg/L)	MW-11	1.662	No	0.01	Mann-W
Fluoride (mg/L)	MW-12	3.514	Yes	0.01	Mann-W
Fluoride (mg/L)	MW-2 (bg)	2.335	No	0.01	Mann-W
Fluoride (mg/L)	MW-3 (bg)	1.018	No	0.01	Mann-W
Fluoride (mg/L)	MW-4 (bg)	1.347	No	0.01	Mann-W
Fluoride (mg/L)	MW-7	1.853	No	0.01	Mann-W
Fluoride (mg/L)	MW-8	-0.6336	No	0.01	Mann-W
Sulfate (mg/L)	MW-1 (bg)	1.496	No	0.01	Mann-W
Sulfate (mg/L)	MW-10	-2.035	No	0.01	Mann-W
Sulfate (mg/L)	MW-11	-2.128	No	0.01	Mann-W
Sulfate (mg/L)	MW-12	0.8983	No	0.01	Mann-W
Sulfate (mg/L)	MW-2 (bg)	-2.766	Yes	0.01	Mann-W
Sulfate (mg/L)	MW-3 (bg)	0.3073	No	0.01	Mann-W
Sulfate (mg/L)	MW-4 (bg)	-2.565	No	0.01	Mann-W
Sulfate (mg/L)	MW-7	0.4039	No	0.01	Mann-W
Sulfate (mg/L)	MW-8	1.283	No	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-1 (bg)	0.03557	No	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-10	-3.072	Yes	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-11	-3.073	Yes	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-12	0.6144	No	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-2 (bg)	-2.563	No	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-3 (bg)	-0.03413	No	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-4 (bg)	-2.628	Yes	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-7	-1.849	No	0.01	Mann-W
Total Dissolved Solids (mg/L)	MW-8	-2.792	Yes	0.01	Mann-W

Mann-Whitney (Wilcoxon Rank Sum)

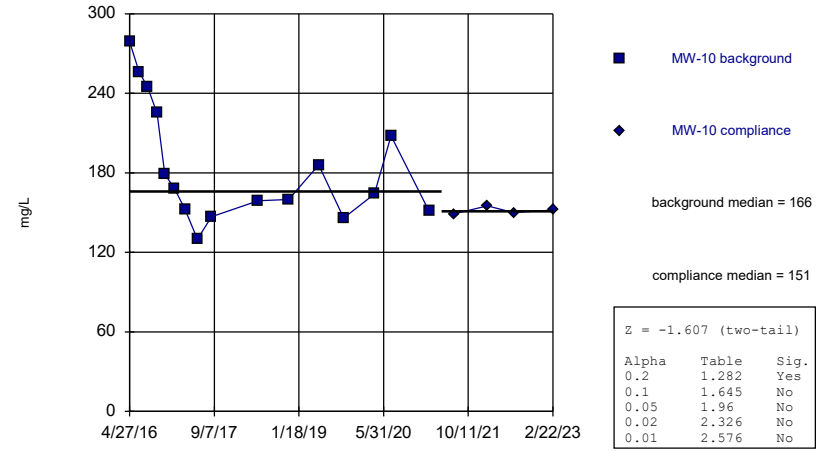
MW-1 (bg)



Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
 Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

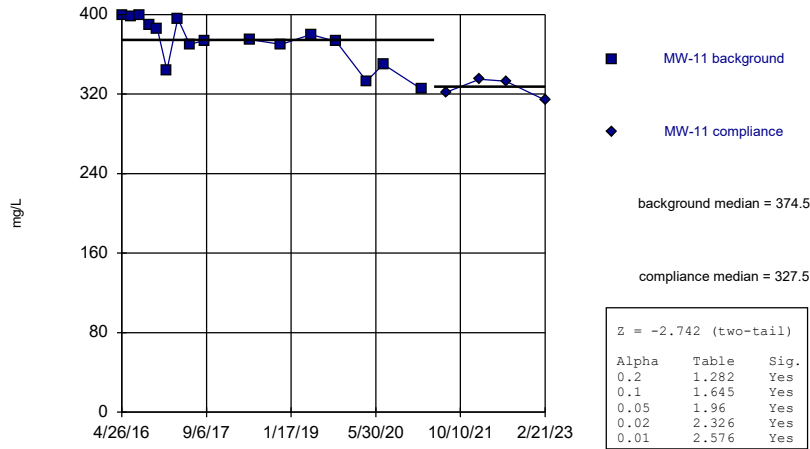
MW-10



Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
 Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

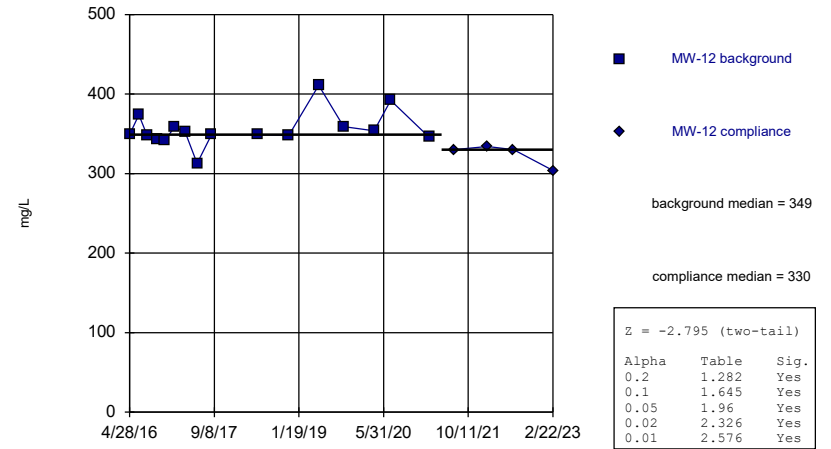
MW-11



Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
 Plant Gorgas Data: Gorgas BALF CCR

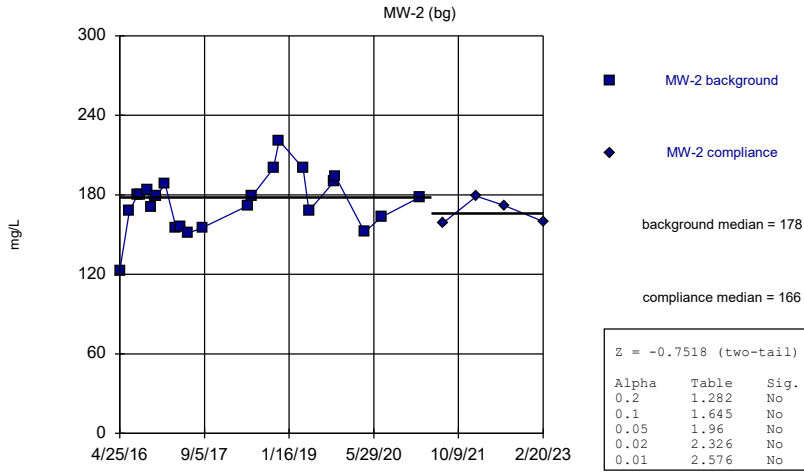
Mann-Whitney (Wilcoxon Rank Sum)

MW-12



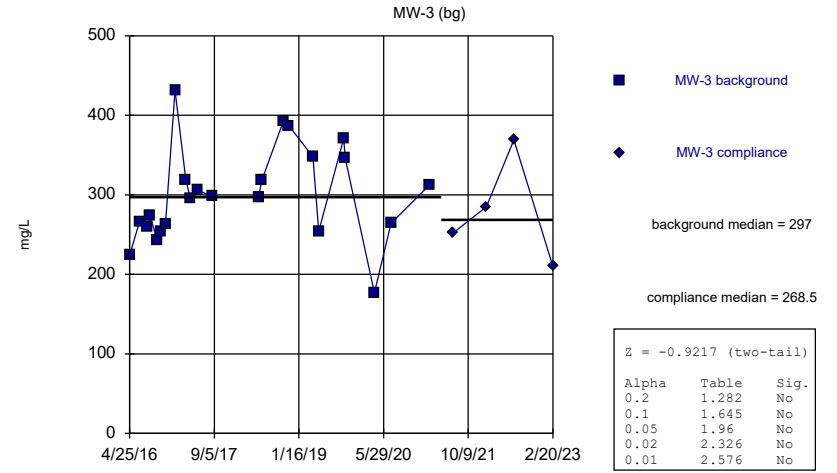
Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
 Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



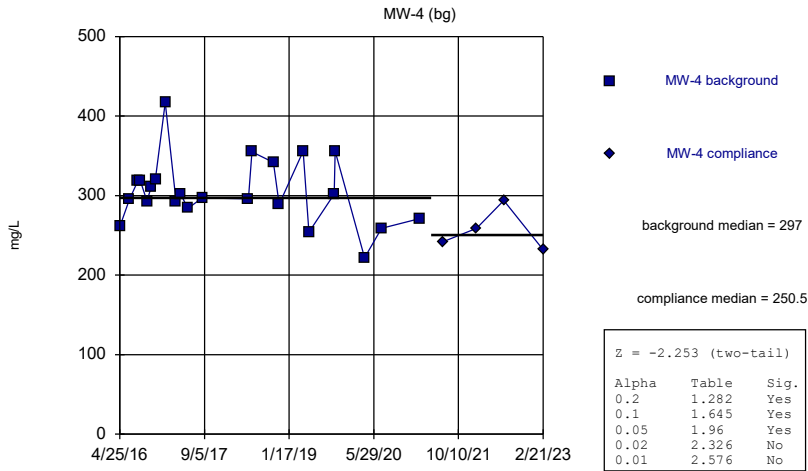
Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



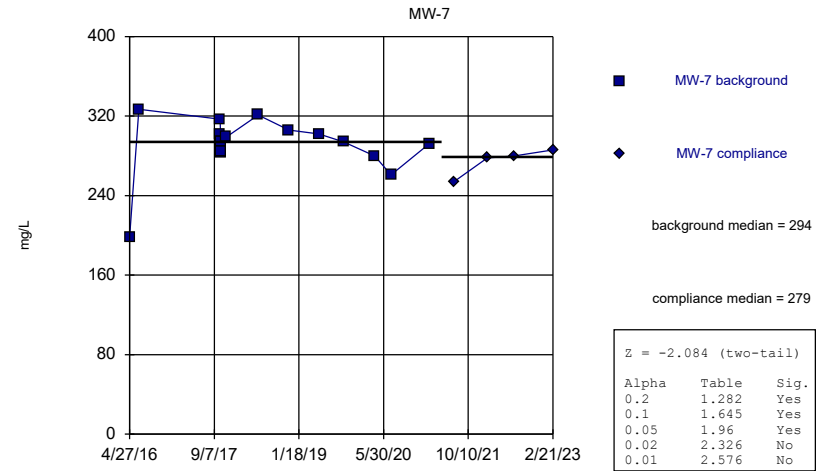
Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



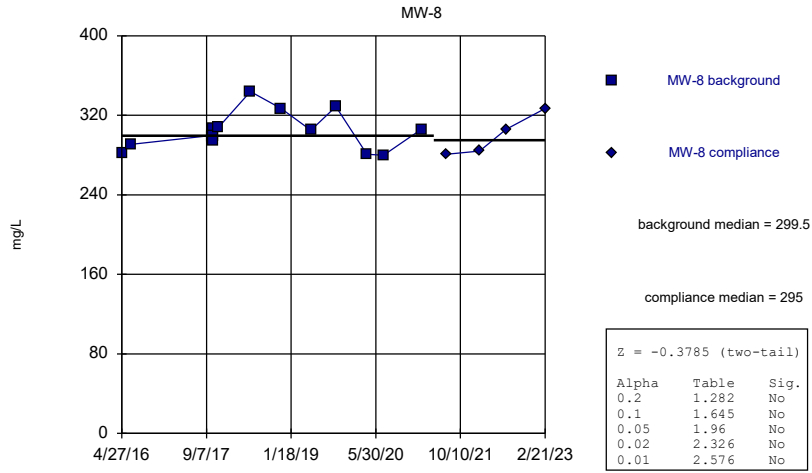
Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



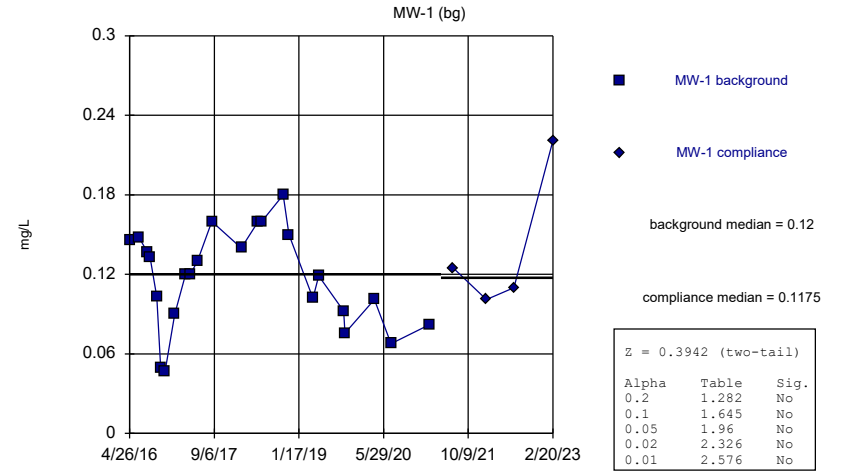
Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



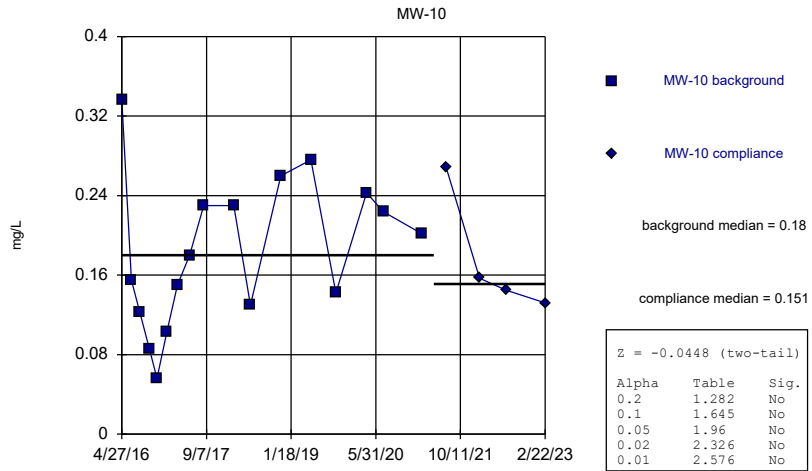
Constituent: Calcium Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



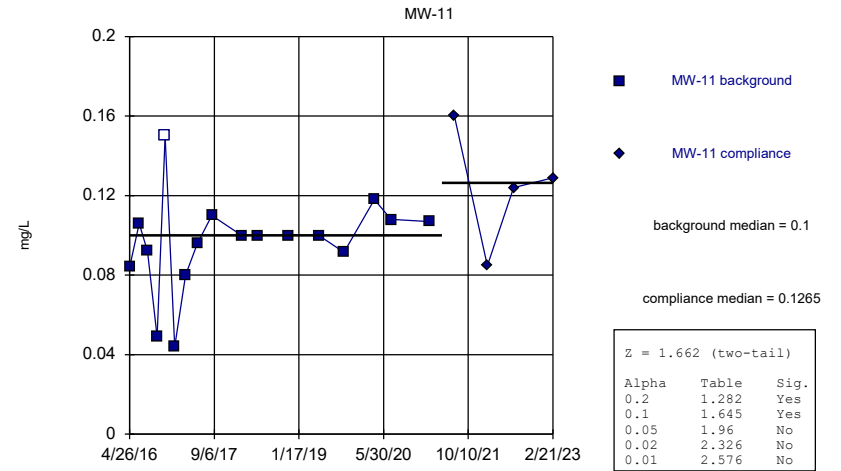
Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



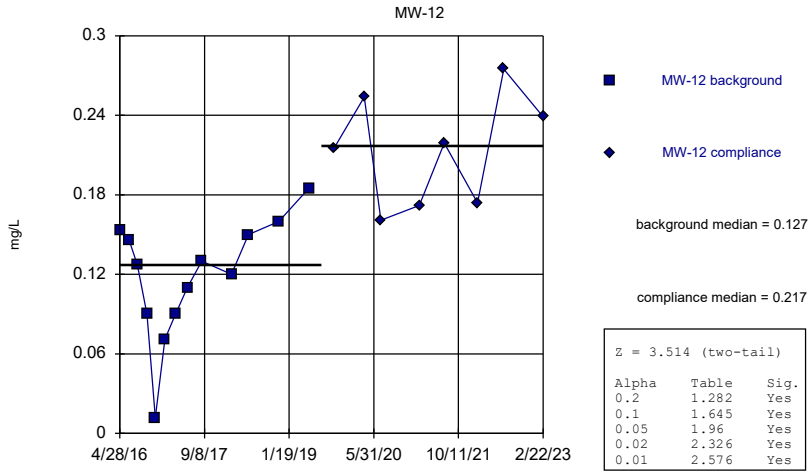
Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



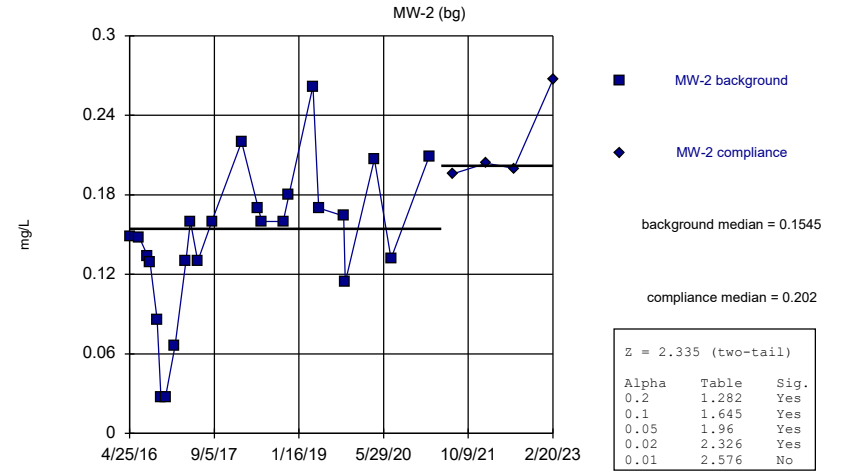
Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



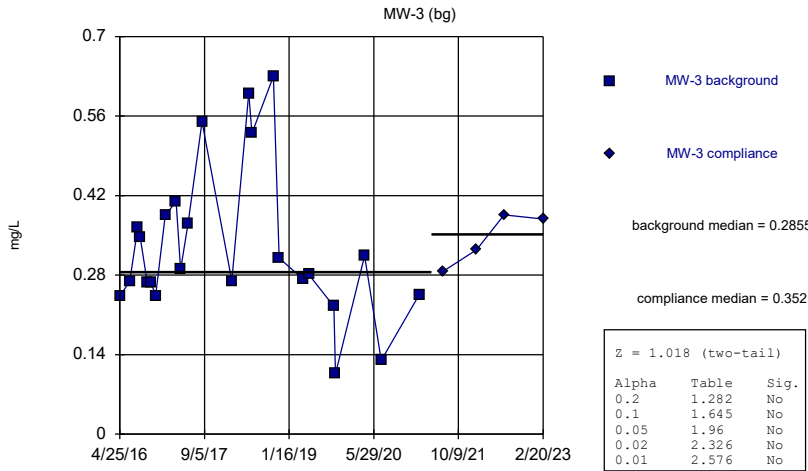
Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



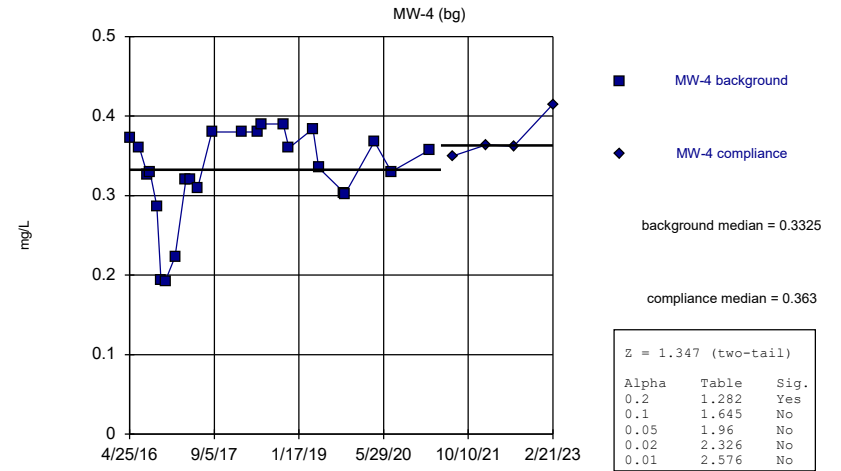
Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

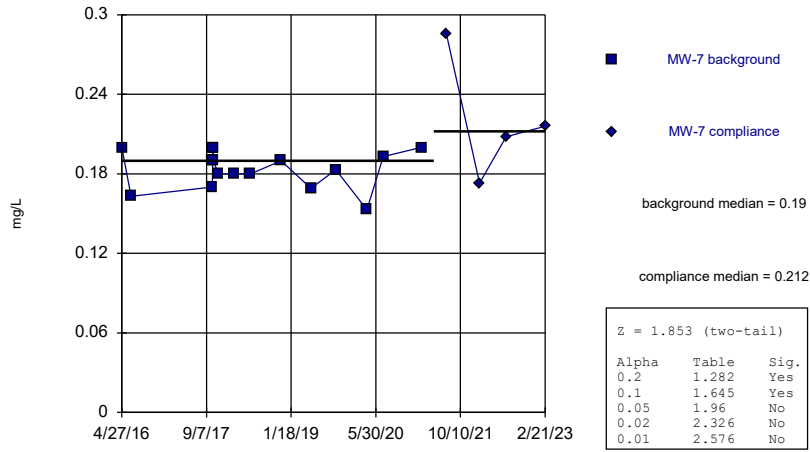
Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

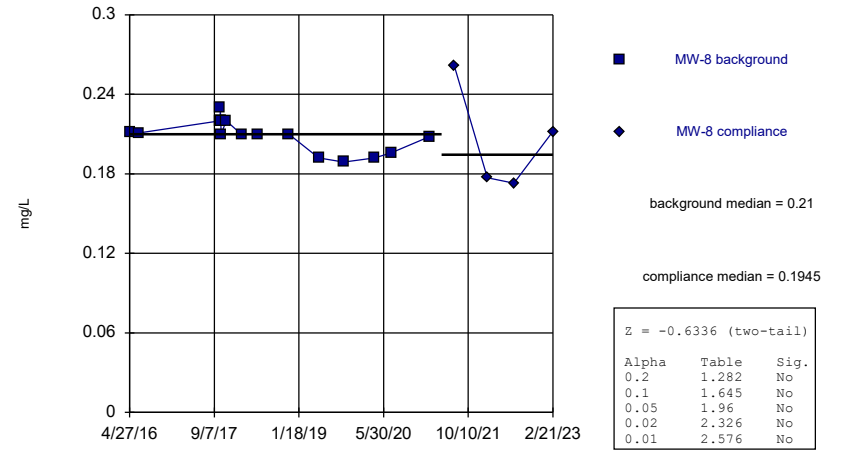
MW-7



Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

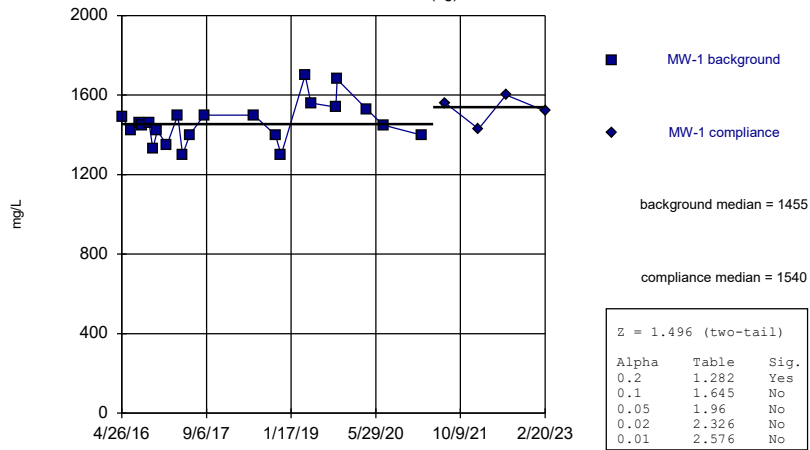
MW-8



Constituent: Fluoride Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

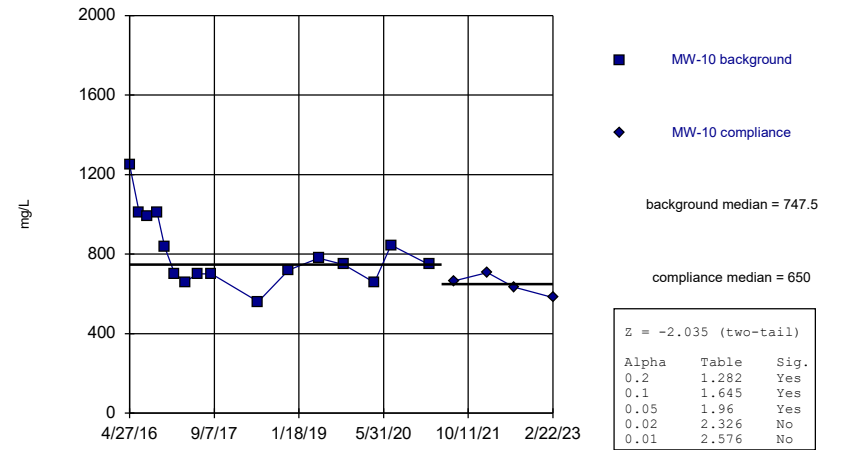
MW-1 (bg)



Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

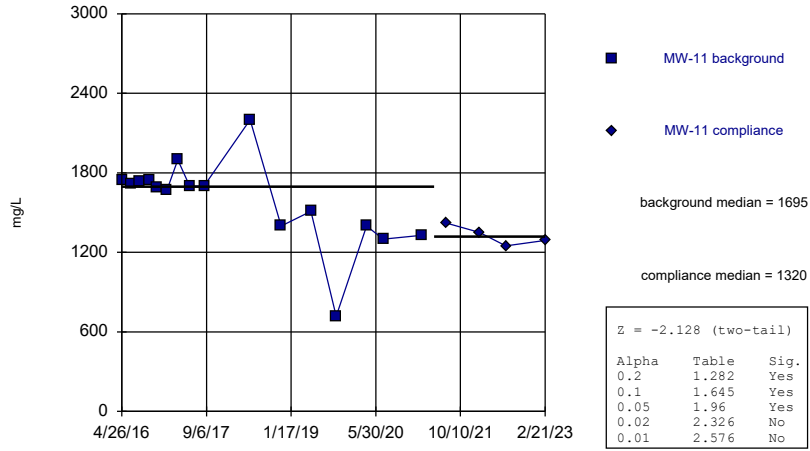
MW-10



Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

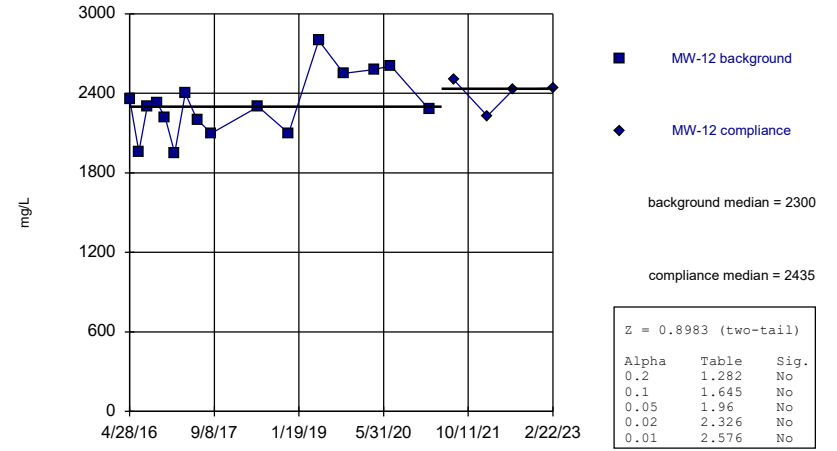
MW-11



Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

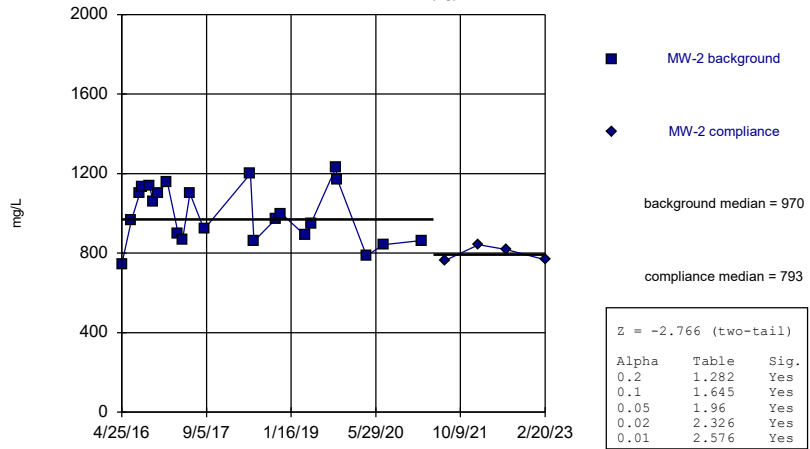
MW-12



Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

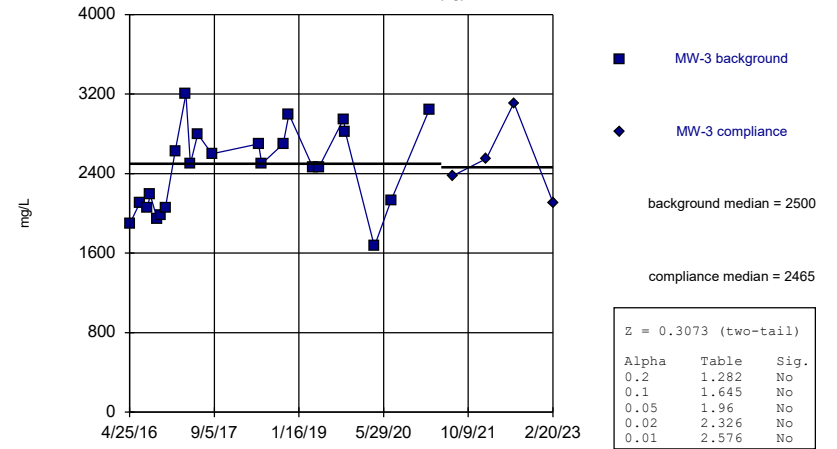
MW-2 (bg)



Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

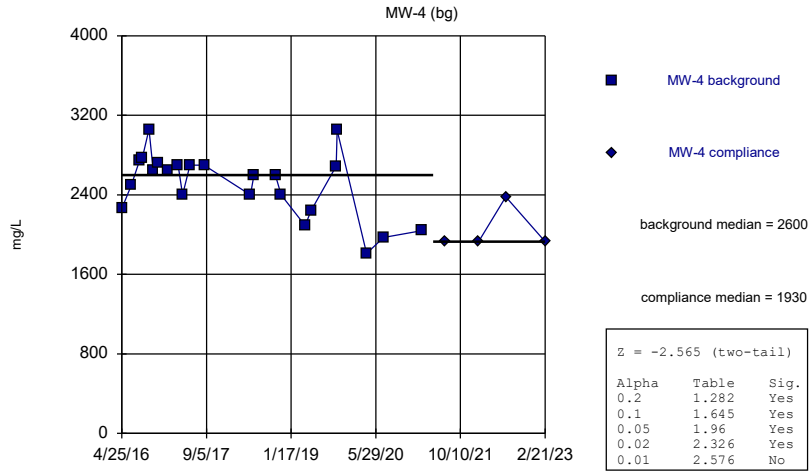
Mann-Whitney (Wilcoxon Rank Sum)

MW-3 (bg)



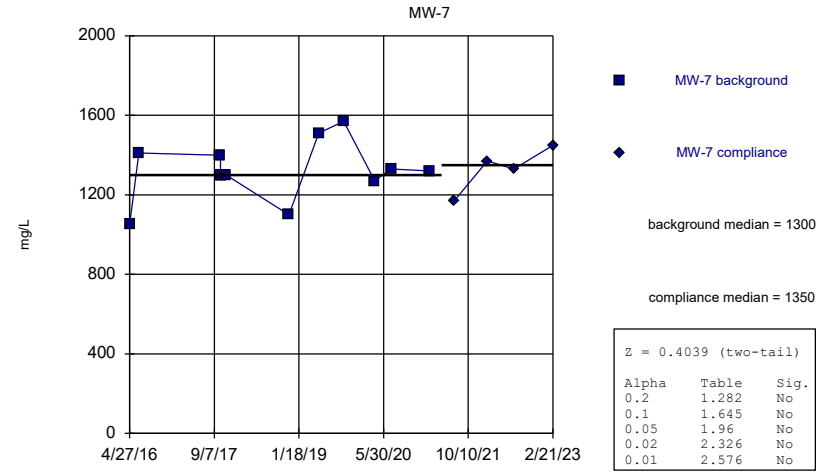
Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



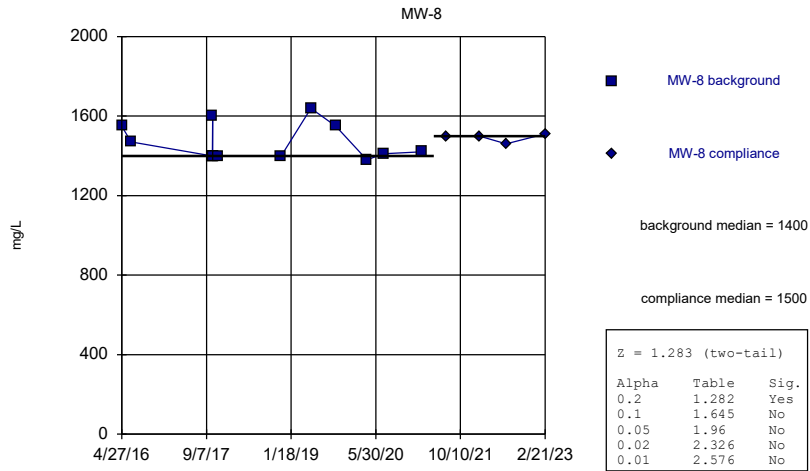
Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)



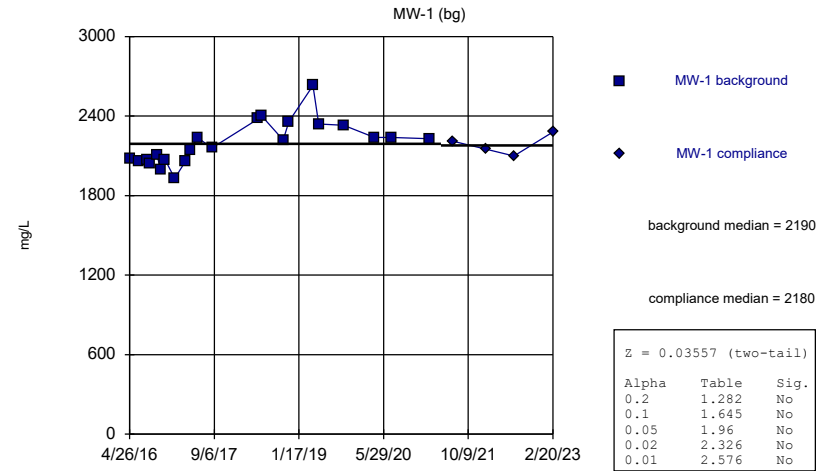
Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

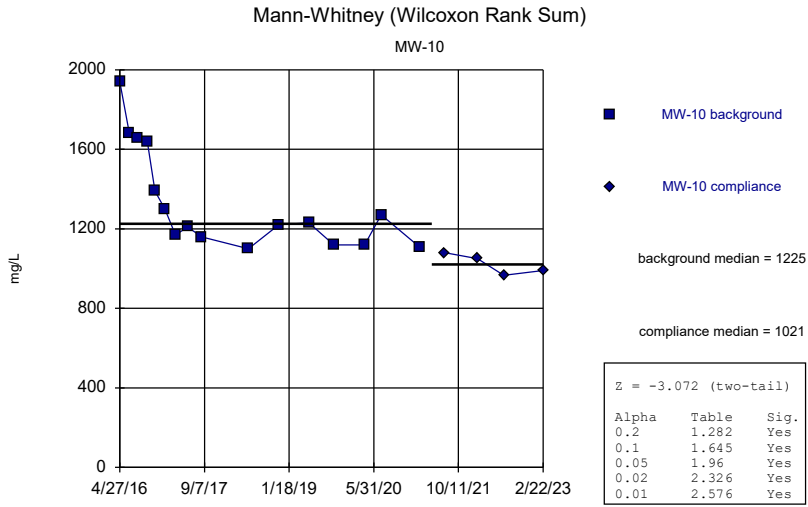


Constituent: Sulfate Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

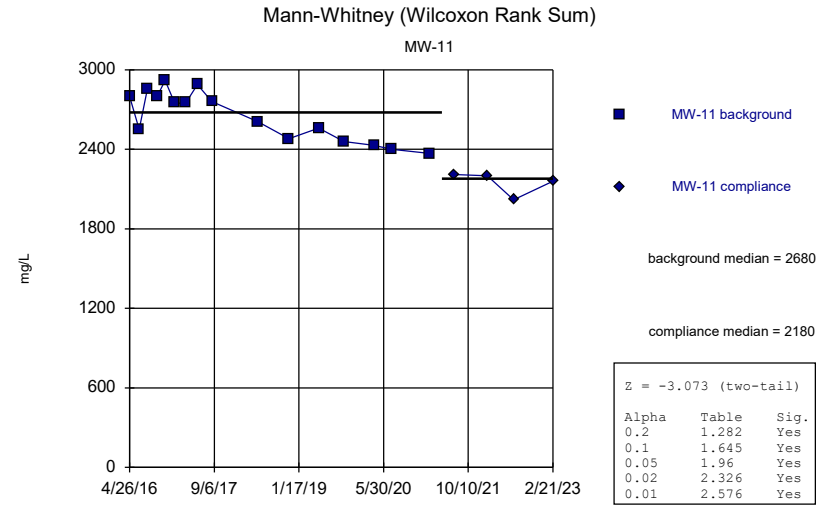
Mann-Whitney (Wilcoxon Rank Sum)



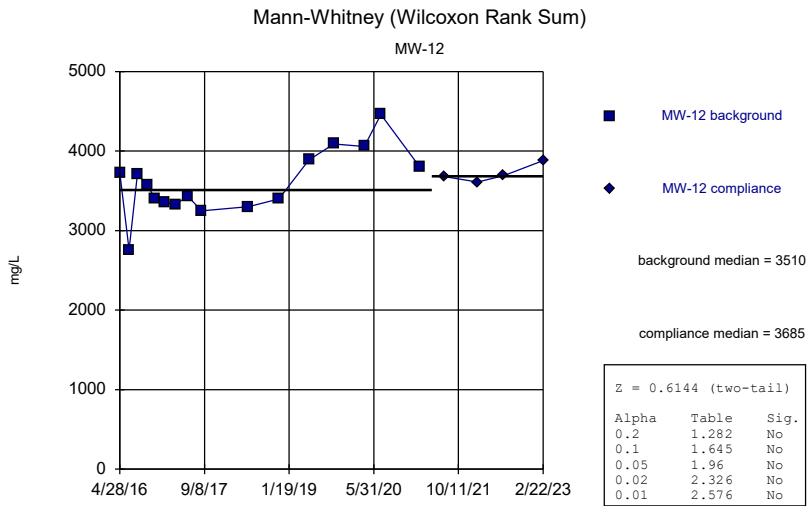
Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



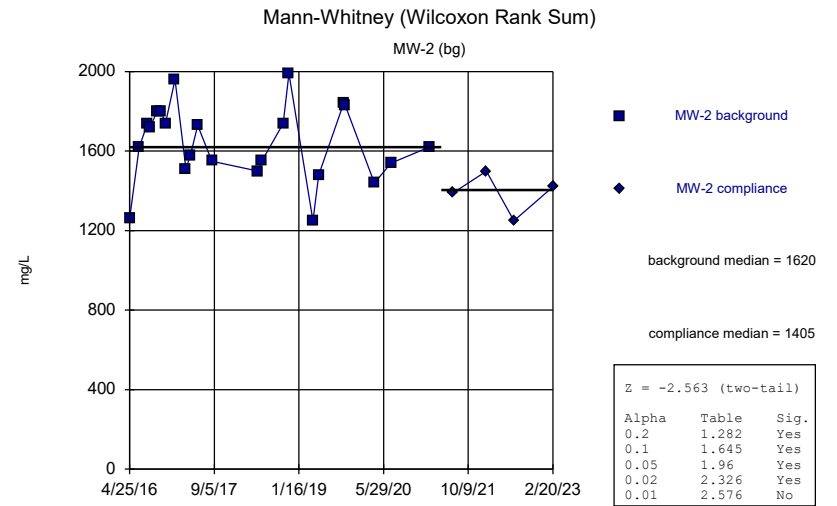
Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



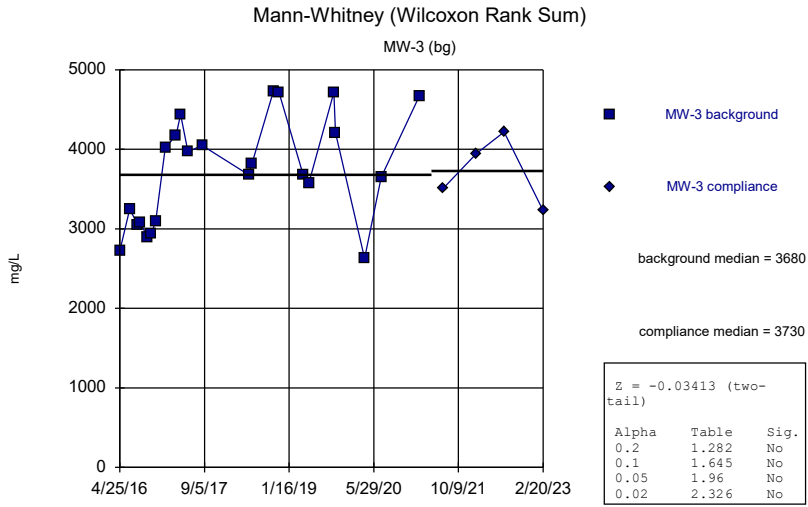
Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



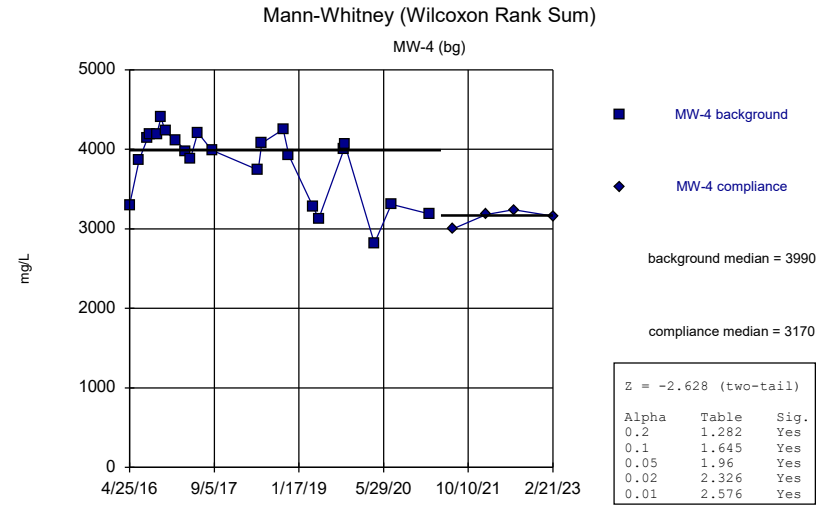
Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



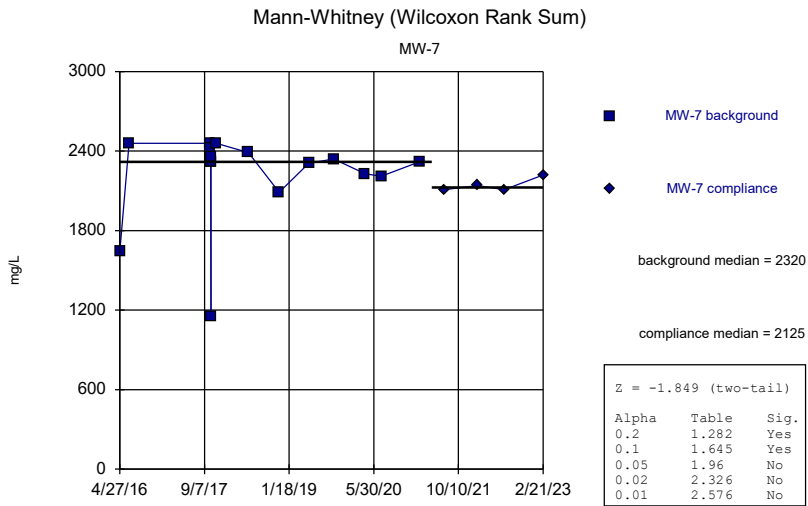
Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:03 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



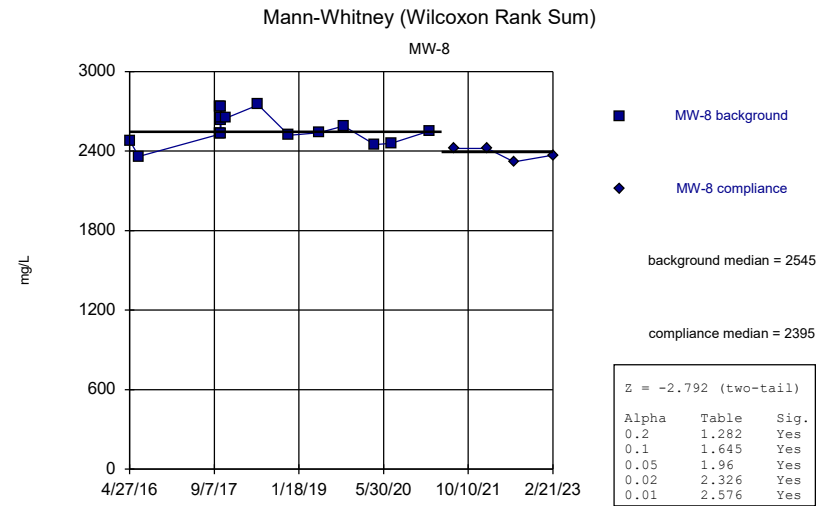
Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:04 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:04 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:04 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR



Constituent: Total Dissolved Solids Analysis Run 10/4/2023 2:04 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/22/2021	151	
7/12/2021		149
1/25/2022		150
7/5/2022		168
2/20/2023		151

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	279	
6/23/2016	256	
8/10/2016	245	
10/5/2016	225	
11/21/2016	179	
1/17/2017	168	
3/21/2017	152	
5/31/2017	130	
8/23/2017	147	
5/24/2018	159	
11/19/2018	160	
5/15/2019	186	
10/9/2019	146	
4/8/2020	164	
7/14/2020	208	
2/23/2021	151	
7/20/2021		149
2/1/2022		155
7/6/2022		150
2/22/2023		152

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	400	
6/22/2016	398	
8/9/2016	399	
10/4/2016	389	
11/21/2016	386	
1/17/2017	344	
3/21/2017	396	
5/30/2017	370	
8/23/2017	374	
5/22/2018	375	
11/20/2018	370	
5/15/2019	380	
10/10/2019	373	
4/6/2020	333	
7/13/2020	350	
2/24/2021	325	
7/21/2021		322
2/1/2022		335
7/5/2022		333
2/21/2023		314

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	349	
6/22/2016	374	
8/10/2016	348	
10/5/2016	344	
11/22/2016	342	
1/18/2017	359	
3/21/2017	352	
5/31/2017	313	
8/23/2017	349	
5/24/2018	349	
11/19/2018	348	
5/15/2019	411	
10/9/2019	359	
4/6/2020	354	
7/13/2020	392	
2/24/2021	346	
7/20/2021		330
2/1/2022		334
7/5/2022		330
2/22/2023		304

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/22/2021	178	
7/12/2021		159
1/25/2022		179
7/5/2022		172
2/20/2023		160

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/22/2021	312	
7/12/2021		252
1/25/2022		285
7/5/2022		369
2/20/2023		210

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/22/2021	271	
7/12/2021		242
1/25/2022		259
7/5/2022		294
2/21/2023		232

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/23/2021	292	
7/20/2021		254
1/31/2022		278
7/6/2022		280
2/21/2023		286

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/23/2021	306	
7/20/2021		281
2/1/2022		284
7/6/2022		306
2/21/2023		327

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
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)	
2/22/2021	0.082 (J)	
7/12/2021		0.125
1/25/2022		0.101
7/5/2022		0.11 (J)
2/20/2023		0.221

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	0.337	
6/23/2016	0.155 (J)	
8/10/2016	0.123 (J)	
10/5/2016	0.086 (J)	
11/21/2016	0.056 (J)	
1/17/2017	0.103 (J)	
3/21/2017	0.15	
5/31/2017	0.18	
8/23/2017	0.23	
2/15/2018	0.23	
5/24/2018	0.13	
11/19/2018	0.26	
5/15/2019	0.276	
10/9/2019	0.142	
4/8/2020	0.243	
7/14/2020	0.224	
2/23/2021	0.202	
7/20/2021		0.268
2/1/2022		0.157
7/6/2022		0.145
2/22/2023		0.132

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	0.084 (J)	
6/22/2016	0.106 (J)	
8/9/2016	0.092 (J)	
10/4/2016	0.049 (J)	
11/21/2016	<0.3	
1/17/2017	0.044 (J)	
3/21/2017	0.08 (J)	
5/30/2017	0.096 (J)	
8/23/2017	0.11	
2/14/2018	0.1	
5/22/2018	0.1	
11/20/2018	0.1	
5/15/2019	0.1	
10/10/2019	0.0915 (J)	
4/6/2020	0.118	
7/13/2020	0.108	
2/24/2021	0.107	
7/21/2021		0.16
2/1/2022		0.0848 (J)
7/5/2022		0.124 (J)
2/21/2023		0.129

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	0.153 (J)	
6/22/2016	0.146 (J)	
8/10/2016	0.127 (J)	
10/5/2016	0.09 (J)	
11/22/2016	0.012 (J)	
1/18/2017	0.071 (J)	
3/21/2017	0.09 (J)	
5/31/2017	0.11	
8/23/2017	0.13	
2/15/2018	0.12	
5/24/2018	0.15	
11/19/2018	0.16	
5/15/2019	0.185	
10/9/2019		0.215
4/6/2020		0.254
7/13/2020		0.161
2/24/2021		0.172
7/20/2021		0.219
2/1/2022		0.174
7/5/2022		0.275
2/22/2023		0.239

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.209	
7/12/2021		0.196
1/25/2022		0.204
7/5/2022		0.2
2/20/2023		0.267

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.246	
7/12/2021		0.287
1/25/2022		0.325
7/5/2022		0.386
2/20/2023		0.379

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.357	
7/12/2021		0.35
1/25/2022		0.364
7/5/2022		0.362
2/21/2023		0.415

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
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	
2/23/2021	0.2	
7/20/2021		0.286
1/31/2022		0.173
7/6/2022		0.208
2/21/2023		0.216

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
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	
2/23/2021	0.208	
7/20/2021		0.262
2/1/2022		0.177
7/6/2022		0.173
2/21/2023		0.212

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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 (o)	
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	
2/22/2021	1400	
7/12/2021		1560
1/25/2022		1430
7/5/2022		1600
2/20/2023		1520

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	1250	
6/23/2016	1010	
8/10/2016	992	
10/5/2016	1010	
11/21/2016	834	
1/17/2017	700	
3/21/2017	660	
5/31/2017	700	
8/23/2017	700	
5/24/2018	560	
11/19/2018	720	
5/15/2019	780	
10/9/2019	748	
4/8/2020	658	
7/14/2020	845	
2/23/2021	747	
7/20/2021		665
2/1/2022		707
7/6/2022		635
2/22/2023		581

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	1750	
6/22/2016	1720	
8/9/2016	1740	
10/4/2016	1750	
11/21/2016	1690	
1/17/2017	1670	
3/21/2017	1900	
5/30/2017	1700	
8/23/2017	1700	
5/22/2018	2200	
11/20/2018	1400	
5/15/2019	1510	
10/10/2019	719	
4/6/2020	1400	
7/13/2020	1300	
2/24/2021	1330	
7/21/2021		1420
2/1/2022		1350
7/5/2022		1250
2/21/2023		1290

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	2360	
6/22/2016	1960	
8/10/2016	2300	
10/5/2016	2330	
11/22/2016	2220	
1/18/2017	1950	
3/21/2017	2400	
5/31/2017	2200	
8/23/2017	2100	
5/24/2018	2300	
11/19/2018	2100	
5/15/2019	2800	
10/9/2019	2550	
4/6/2020	2580	
7/13/2020	2610	
2/24/2021	2280	
7/20/2021		2500
2/1/2022		2230
7/5/2022		2430
2/22/2023		2440

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/22/2021	864	
7/12/2021		763
1/25/2022		842
7/5/2022		819
2/20/2023		767

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/22/2021	3040	
7/12/2021		2380
1/25/2022		2550
7/5/2022		3110
2/20/2023		2110

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/22/2021	2040	
7/12/2021		1930
1/25/2022		1930
7/5/2022		2380
2/21/2023		1930

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/23/2021	1320	
7/20/2021		1170
1/31/2022		1370
7/6/2022		1330
2/21/2023		1450

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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 (o)	
11/20/2018	1400	
5/15/2019	1640	
10/9/2019	1550	
4/8/2020	1380	
7/15/2020	1410	
2/23/2021	1420	
7/20/2021		1500
2/1/2022		1500
7/6/2022		1460
2/21/2023		1510

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-1	MW-1
4/26/2016	2080	
6/20/2016	2060	
8/8/2016	2070	
8/24/2016	2040	
10/3/2016	2110	
10/26/2016	2000	
11/21/2016	2070	
1/17/2017	1930	
3/22/2017	2060	
4/18/2017	2140	
5/30/2017	2240	
8/23/2017	2160	
5/22/2018	2380	
6/12/2018	2400	
10/17/2018	2220	
11/19/2018	2360	
4/10/2019	2630	
5/14/2019	2340	
10/8/2019	2330	
10/16/2019	3650 (o)	
4/6/2020	2240	
7/13/2020	2240	
2/22/2021	2230	
7/12/2021		2210
1/25/2022		2150
7/5/2022		2100
2/20/2023		2280

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	1940	
6/23/2016	1680	
8/10/2016	1660	
10/5/2016	1640	
11/21/2016	1390	
1/17/2017	1300	
3/21/2017	1170	
5/31/2017	1210	
8/23/2017	1160	
5/24/2018	1100	
11/19/2018	1220	
5/15/2019	1230	
10/9/2019	1120	
4/8/2020	1120	
7/14/2020	1270	
2/23/2021	1110	
7/20/2021		1080
2/1/2022		1050
7/6/2022		967
2/22/2023		991

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	2800	
6/22/2016	2550	
8/9/2016	2860	
10/4/2016	2800	
11/21/2016	2920	
1/17/2017	2750	
3/21/2017	2750	
5/30/2017	2890	
8/23/2017	2760	
5/22/2018	2610	
11/20/2018	2480	
5/15/2019	2560	
10/10/2019	2460	
4/6/2020	2430	
7/13/2020	2400	
2/24/2021	2370	
7/21/2021		2210
2/1/2022		2200
7/5/2022		2020
2/21/2023		2160

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	3730	
6/22/2016	2760	
8/10/2016	3710	
10/5/2016	3580	
11/22/2016	3400	
1/18/2017	3360	
3/21/2017	3320	
5/31/2017	3440	
8/23/2017	3250	
5/24/2018	3300	
11/19/2018	3400	
5/15/2019	3890	
10/9/2019	4090	
4/6/2020	4060	
7/13/2020	4460	
2/24/2021	3810	
7/20/2021		3680
2/1/2022		3610
7/5/2022		3690
2/22/2023		3880

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-2	MW-2
4/25/2016	1260	
6/20/2016	1620	
8/8/2016	1740	
8/24/2016	1720	
10/3/2016	1800	
10/26/2016	1800	
11/21/2016	1740	
1/17/2017	1960	
3/22/2017	1510	
4/18/2017	1580	
5/31/2017	1730	
8/23/2017	1550	
5/22/2018	1500	
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	
2/22/2021	1620	
7/12/2021		1390
1/25/2022		1500
7/5/2022		1250
2/20/2023		1420

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-3	MW-3
4/25/2016	2720	
6/22/2016	3250	
8/9/2016	3050	
8/24/2016	3080	
10/4/2016	2900	
10/26/2016	2940	
11/21/2016	3090	
1/18/2017	4020	
3/22/2017	4180	
4/18/2017	4440	
5/31/2017	3970	
8/23/2017	4050	
5/24/2018	3680	
6/12/2018	3820	
10/17/2018	4730	
11/19/2018	4710	
4/10/2019	3680	
5/14/2019	3580	
10/8/2019	4720	
10/16/2019	4210	
4/6/2020	2630	
7/13/2020	3650	
2/22/2021	4670	
7/12/2021		3510
1/25/2022		3950
7/5/2022		4220
2/20/2023		3230

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	MW-4	MW-4
4/25/2016	3300	
6/20/2016	3870	
8/9/2016	4140	
8/24/2016	4190	
10/3/2016	4190	
10/26/2016	4400	
11/21/2016	4230	
1/18/2017	4120	
3/22/2017	3980	
4/18/2017	3880	
5/31/2017	4210	
8/23/2017	3990	
5/23/2018	3740	
6/12/2018	4080	
10/17/2018	4250	
11/19/2018	3920	
4/10/2019	3280	
5/14/2019	3130	
10/10/2019	4000	
10/16/2019	4060	
4/6/2020	2820	
7/14/2020	3310	
2/22/2021	3190	
7/12/2021		3000
1/25/2022		3180
7/5/2022		3240
2/21/2023		3160

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/23/2021	2320	
7/20/2021		2110
1/31/2022		2140
7/6/2022		2110
2/21/2023		2220

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/4/2023 2:06 PM View: Appendix III - Mann-Whitney
Plant Gorgas Data: Gorgas BALF CCR

	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	
2/23/2021	2550	
7/20/2021		2420
2/1/2022		2420
7/6/2022		2320
2/21/2023		2370

FIGURE E.

Upgradient Wells Trend Tests - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 4:57 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP

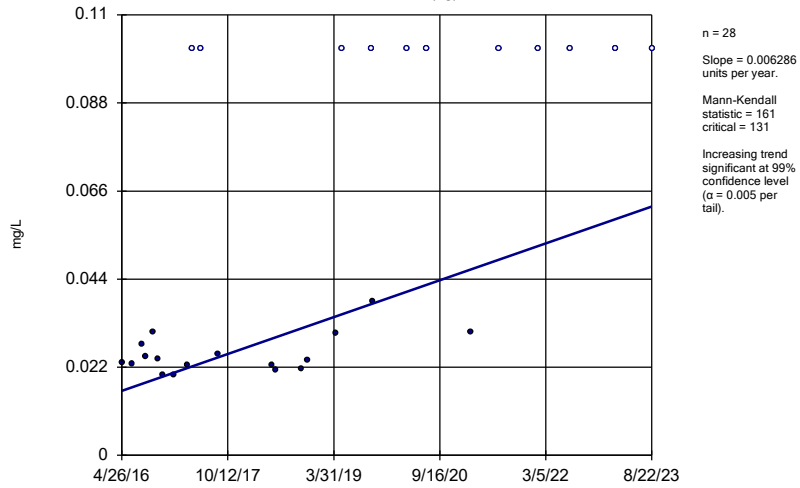
Upgradient Wells Trend Tests - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 4:57 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0.004142	102	131	No	28	28.57	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003115	-55	-124	No	27	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-0.02423	-54	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.1196	-77	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.04365	68	131	No	28	7.143	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.04985	-94	-131	No	28	3.571	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	0.02424	22	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-4 (bg)	0.01768	115	139	No	29	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

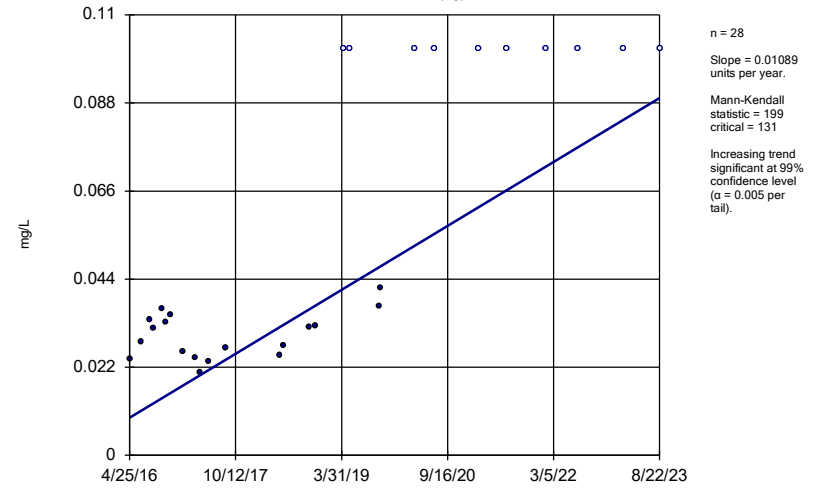
MW-1 (bg)



Constituent: Boron Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

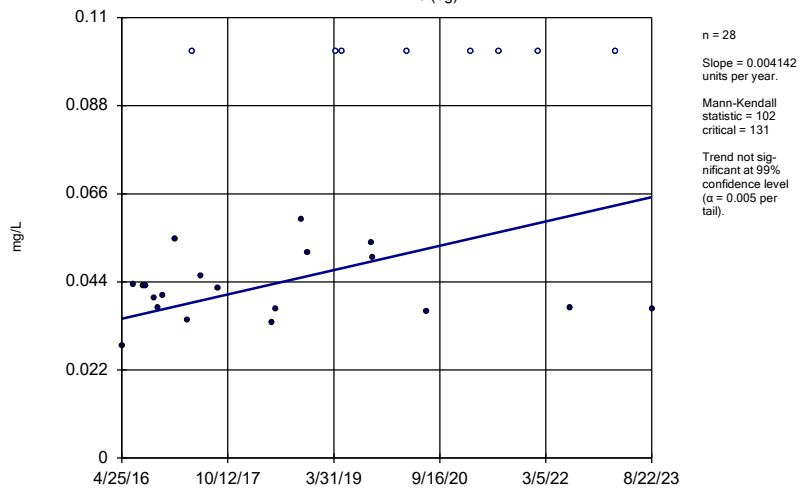
MW-2 (bg)



Constituent: Boron Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

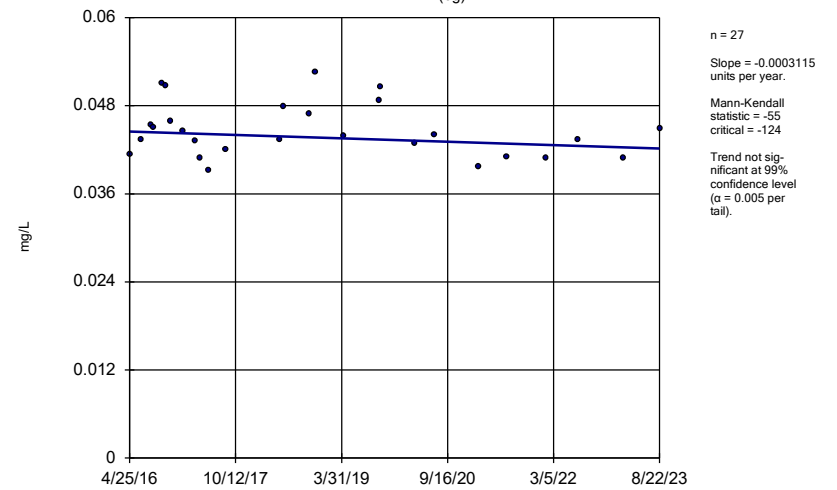
MW-3 (bg)



Constituent: Boron Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

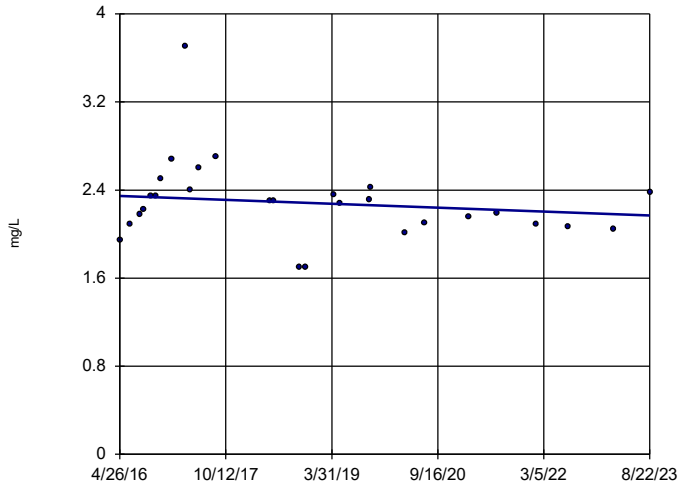
MW-4 (bg)



Constituent: Boron Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

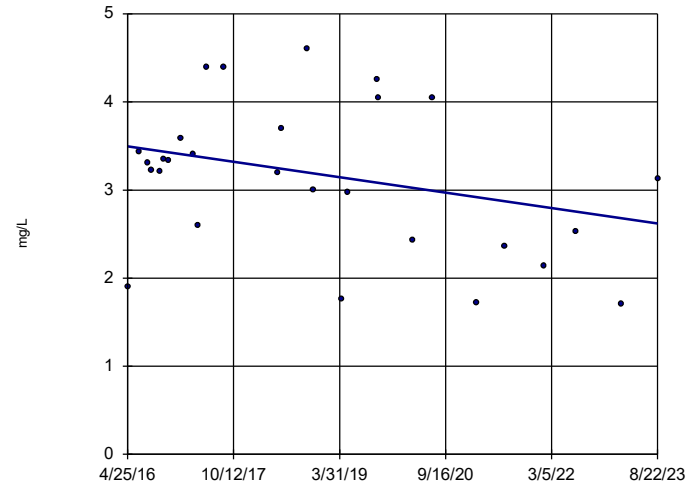


n = 28
 Slope = -0.02423
 units per year.
 Mann-Kendall
 statistic = -54
 critical = -131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)



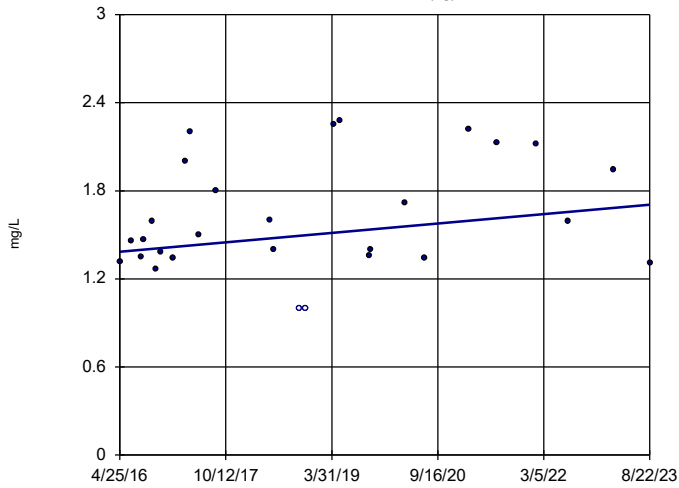
n = 28
 Slope = -0.1196
 units per year.
 Mann-Kendall
 statistic = -77
 critical = -131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



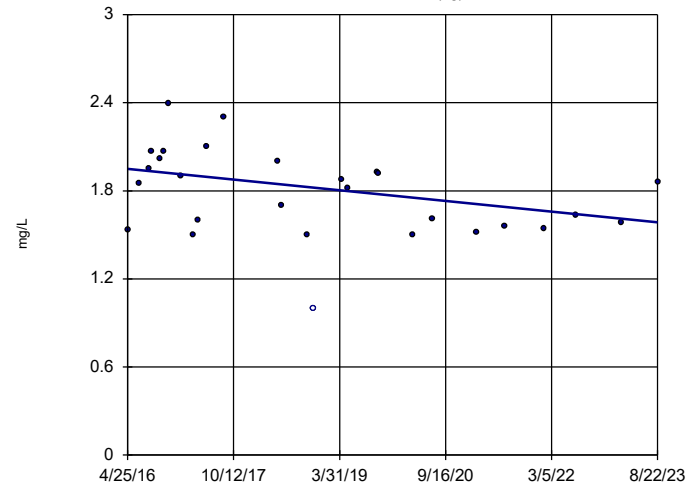
n = 28
 Slope = 0.04365
 units per year.
 Mann-Kendall
 statistic = 68
 critical = 131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)

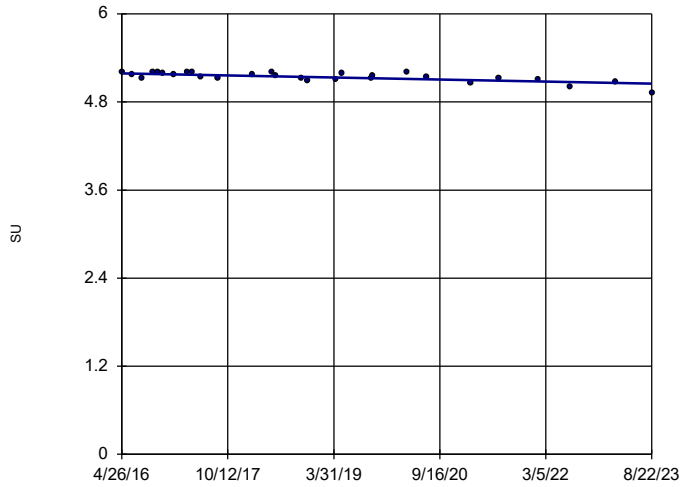


n = 28
 Slope = -0.04985
 units per year.
 Mann-Kendall
 statistic = -94
 critical = -131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

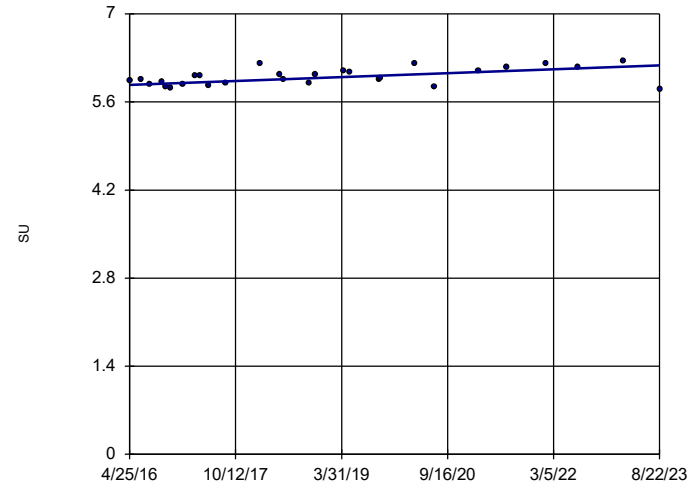


n = 28
 Slope = -0.01854
 units per year.
 Mann-Kendall
 statistic = -181
 critical = -131
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)

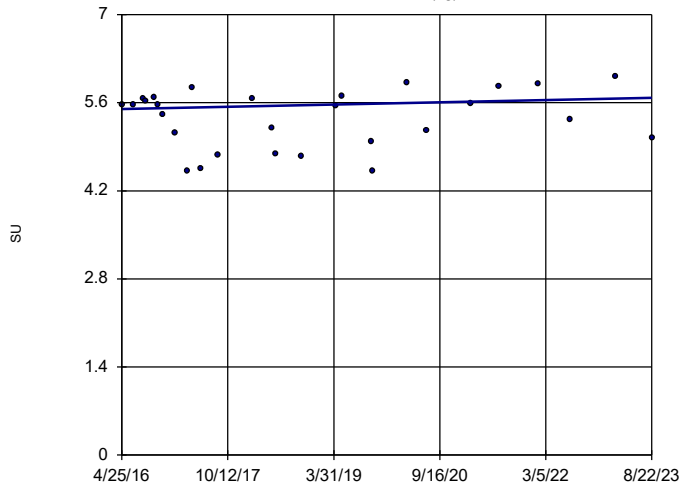


n = 28
 Slope = 0.04189
 units per year.
 Mann-Kendall
 statistic = 142
 critical = 131
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-3 (bg)

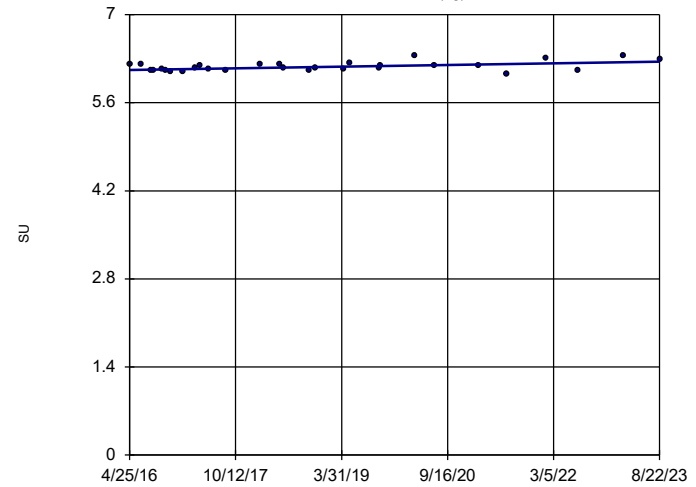


n = 28
 Slope = 0.02424
 units per year.
 Mann-Kendall
 statistic = 22
 critical = 131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-4 (bg)



n = 29
 Slope = 0.01768
 units per year.
 Mann-Kendall
 statistic = 115
 critical = 139
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 4:49 PM View: Appendix III - Upgradient Wells
 Plant Gorgas Data: Gorgas BALF CCR

FIGURE F.

Appendix III Intrawell Prediction Limits - Significant Result

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 10/5/2023, 12:34 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-7	337.6	n/a	8/15/2023	339	Yes	20	83447	14827	0	None	x^2	0.001504	Param Intra 1 of 2

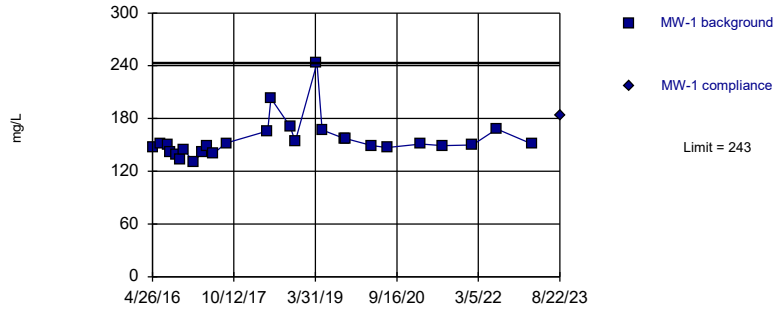
Appendix III Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 10/5/2023, 12:35 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	MW-1	243	n/a	8/22/2023	183	No	27	n/a	n/a	0	n/a	n/a	0.002502	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-10	279	n/a	8/15/2023	188	No	20	n/a	n/a	0	n/a	n/a	0.004291	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-11	422.2	n/a	8/15/2023	367	No	20	363.3	28.63	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-12	398.6	n/a	8/16/2023	313	No	20	349.4	23.95	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-2	211.8	n/a	8/22/2023	168	No	27	173.2	19.56	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-3	414.9	n/a	8/22/2023	359	No	27	296.9	59.85	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-4	382.7	n/a	8/22/2023	287	No	27	297.7	43.11	0	None	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-7	337.6	n/a	8/15/2023	339	Yes	20	83447	14827	0	None	x^2	0.001504	Param Intra 1 of 2
Calcium (mg/L)	MW-8	339.4	n/a	8/15/2023	328	No	20	302.4	18	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-1	0.1973	n/a	8/22/2023	0.159	No	28	0.1204	0.03916	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-10	0.3285	n/a	8/15/2023	0.0889J	No	21	0.1823	0.07148	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1572	n/a	8/15/2023	0.122J	No	21	0.1016	0.02722	4.762	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-12	0.3021	n/a	8/16/2023	0.134	No	11	0.2004	0.04237	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-2	0.2647	n/a	8/22/2023	0.184	No	20	0.1798	0.0413	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-3	0.5761	n/a	8/22/2023	0.283	No	28	0.3319	0.1244	0	None	No	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-4	0.4268	n/a	8/22/2023	0.358	No	28	0.1154	0.03399	0	None	x^2	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-7	0.2462	n/a	8/15/2023	0.154	No	21	-1.66	0.1266	0	None	ln(x)	0.001504	Param Intra 1 of 2
Fluoride (mg/L)	MW-8	0.2484	n/a	8/15/2023	0.174	No	21	0.2092	0.01917	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	1673	n/a	8/22/2023	1560	No	26	1471	101.6	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-10	1128	n/a	8/15/2023	631	No	20	775.1	171.7	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	2178	n/a	8/15/2023	1280	No	20	1539	310.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-12	2779	n/a	8/16/2023	2320	No	20	2332	217.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	1263	n/a	8/22/2023	912	No	27	968.1	149.7	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	3281	n/a	8/22/2023	3140	No	27	2464	414.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-4	3134	n/a	8/22/2023	2390	No	27	2441	351.3	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-7	1588	n/a	8/15/2023	1360	No	19	1325	126.2	0	None	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	MW-8	1640	n/a	8/15/2023	1480	No	19	n/a	n/a	0	n/a	n/a	0.004832	NP Intra (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-1	2498	n/a	8/22/2023	2160	No	26	2195	152.7	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-10	1327	n/a	8/15/2023	1050	No	14	1128	88.95	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-11	3099	n/a	8/15/2023	2130	No	20	2549	267	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-12	4381	n/a	8/16/2023	3780	No	20	3621	369.4	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-2	2007	n/a	8/22/2023	1520	No	27	1606	203.5	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-3	4994	n/a	8/22/2023	4820	No	27	3729	641.6	0	None	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-4	4518	n/a	8/22/2023	3780	No	27	5.5e10	1.9e10	0	None	x^3	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-7	2586	n/a	8/15/2023	2270	No	20	2.6e13	9.2e12	0	None	x^4	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-8	2800	n/a	8/15/2023	2410	No	20	2535	128.9	0	None	No	0.001504	Param Intra 1 of 2

Within Limit

Prediction Limit Intrawell Non-parametric

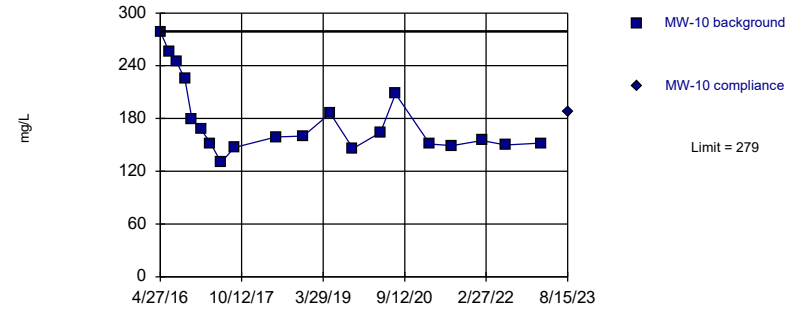


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. Well-constituent pair annual alpha = 0.004998. Individual comparison alpha = 0.002502 (1 of 2).

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Non-parametric

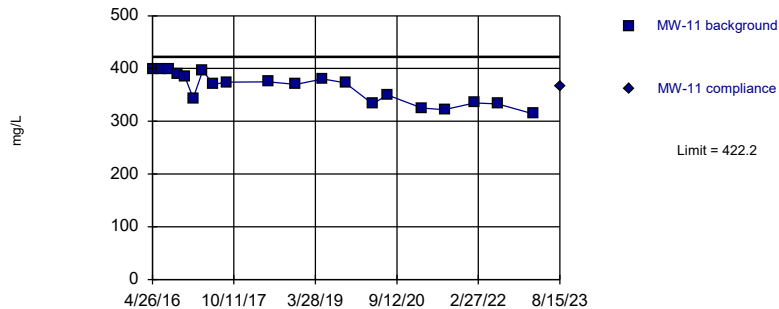


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 20 background values. Well-constituent pair annual alpha = 0.008564. Individual comparison alpha = 0.004291 (1 of 2).

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

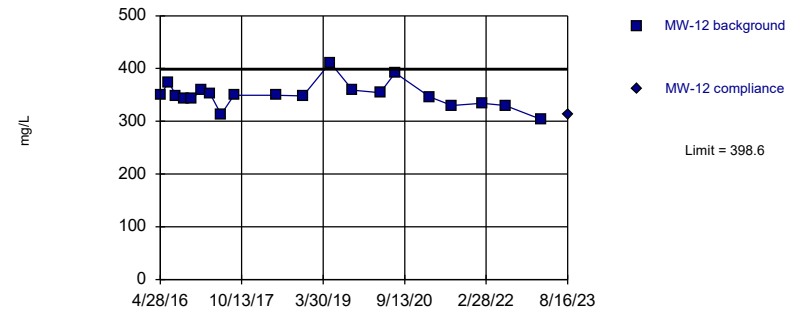


Background Data Summary: Mean=363.3, Std. Dev.=28.63, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.912, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

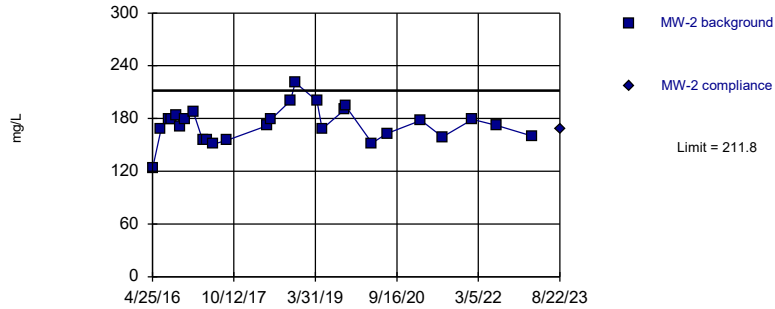


Background Data Summary: Mean=349.4, Std. Dev.=23.95, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9218, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

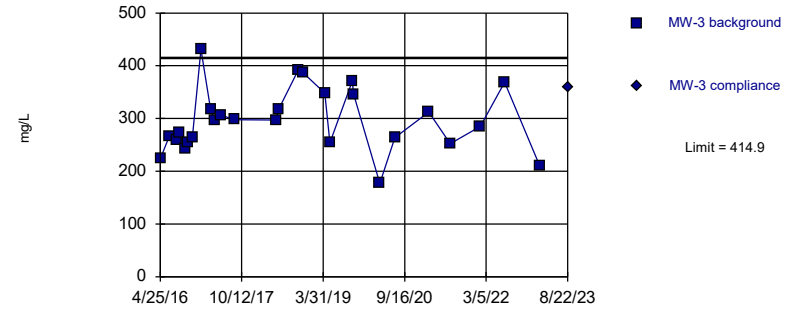


Background Data Summary: Mean=173.2, Std. Dev.=19.56, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9768, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

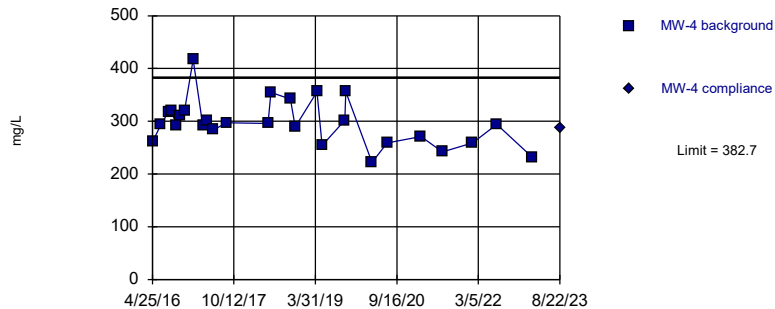


Background Data Summary: Mean=296.9, Std. Dev.=59.85, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9776, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

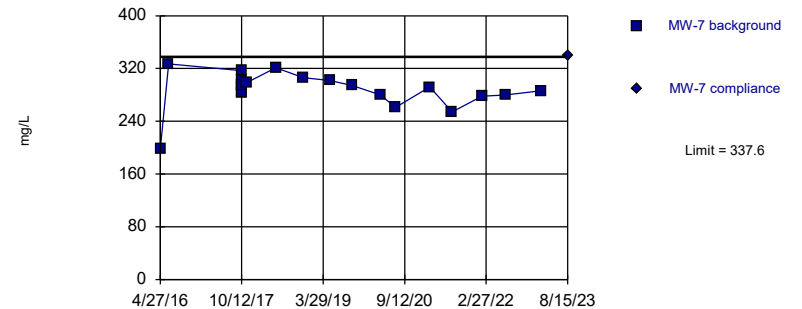


Background Data Summary: Mean=297.7, Std. Dev.=43.11, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9596, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Exceeds Limit

Prediction Limit Intrawell Parametric

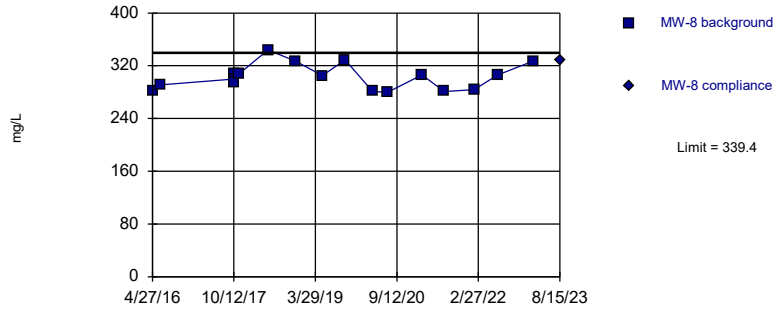


Background Data Summary (based on square transformation): Mean=83447, Std. Dev.=14827, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9078, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

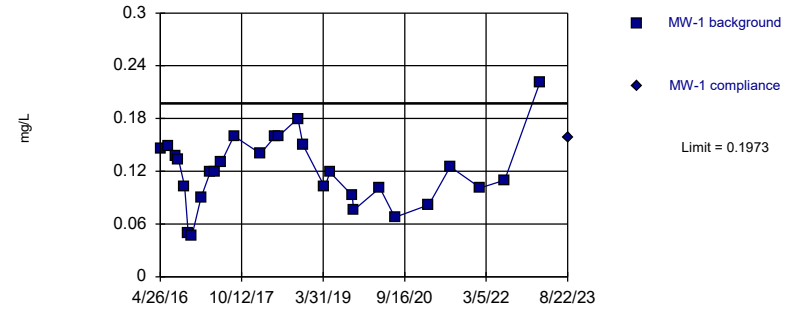


Background Data Summary: Mean=302.4, Std. Dev.=18, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.917, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Calcium Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

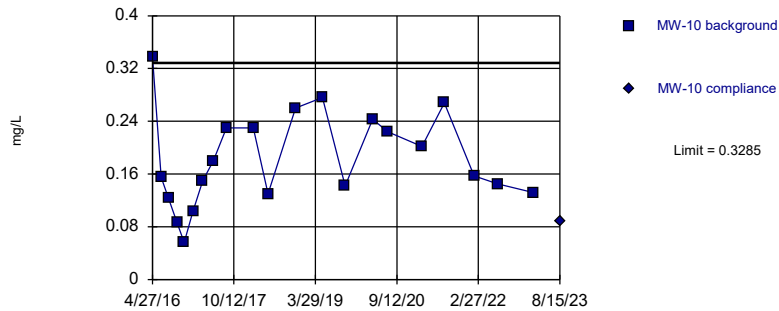


Background Data Summary: Mean=0.1204, Std. Dev.=0.03916, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9828, critical = 0.896. Kappa = 1.964 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric



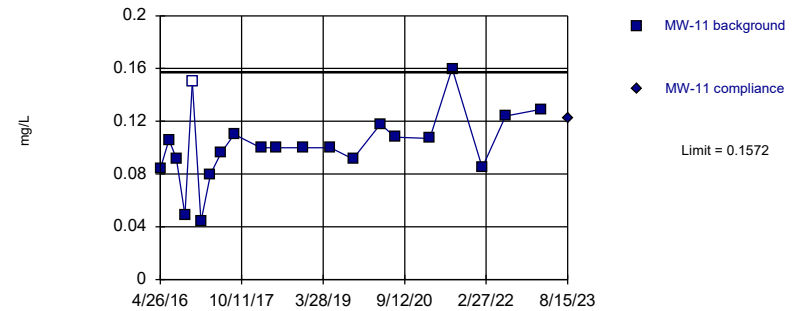
Background Data Summary: Mean=0.1823, Std. Dev.=0.07148, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9724, critical = 0.873. Kappa = 2.044 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric

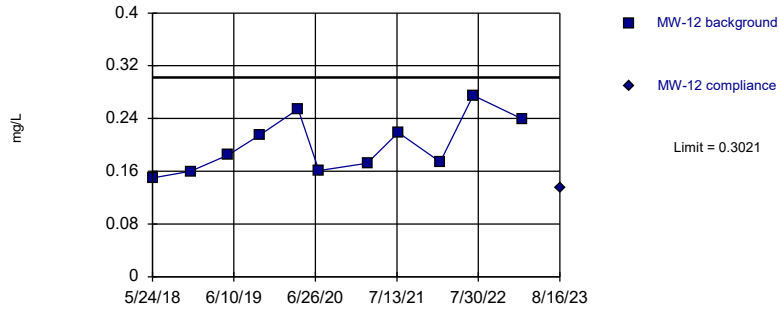


Background Data Summary: Mean=0.1016, Std. Dev.=0.02722, n=21, 4.762% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9469, critical = 0.873. Kappa = 2.044 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

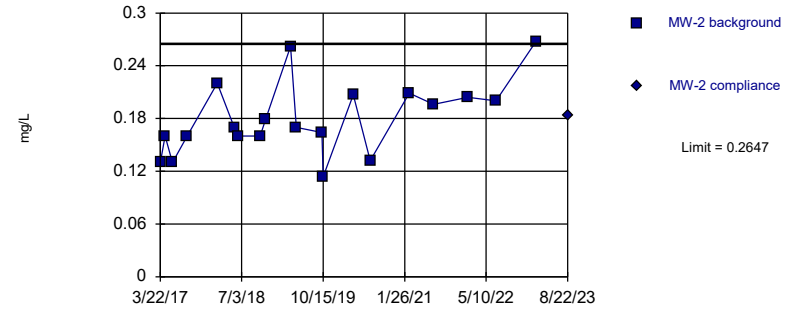


Background Data Summary: Mean=0.2004, Std. Dev.=0.04237, n=11. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9179, critical = 0.85. Kappa = 2.4 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

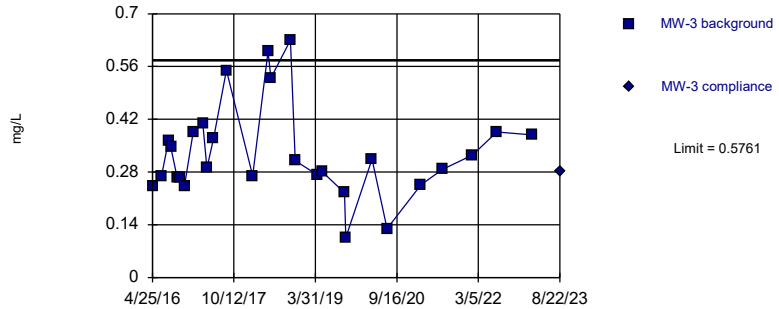


Background Data Summary: Mean=0.1798, Std. Dev.=0.0413, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

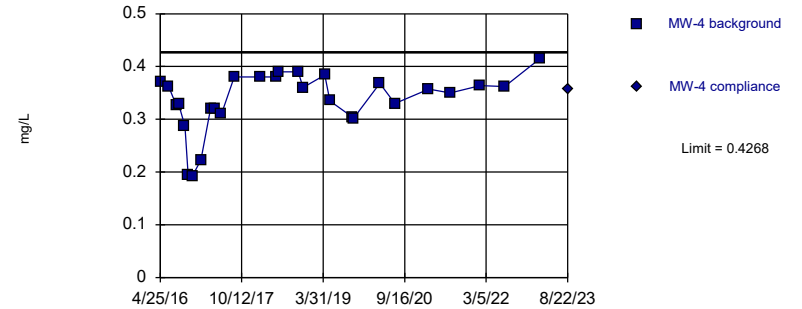


Background Data Summary: Mean=0.3319, Std. Dev.=0.1244, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.896. Kappa = 1.964 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

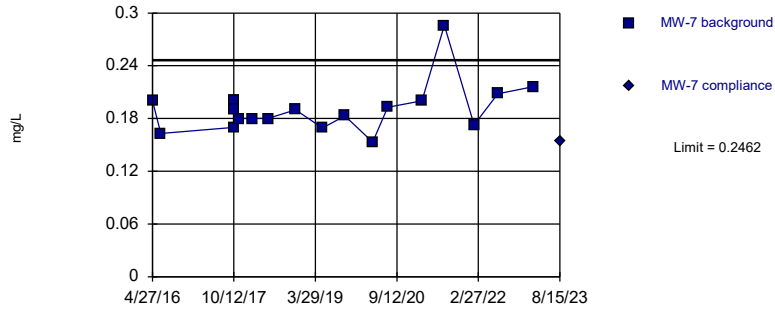


Background Data Summary (based on square transformation): Mean=0.1154, Std. Dev.=0.03399, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9213, critical = 0.896. Kappa = 1.964 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

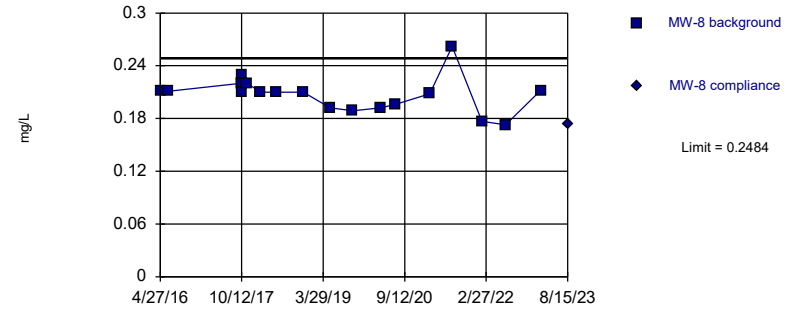


Background Data Summary (based on natural log transformation): Mean=-1.66, Std. Dev.=0.1266, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8784, critical = 0.873. Kappa = 2.044 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

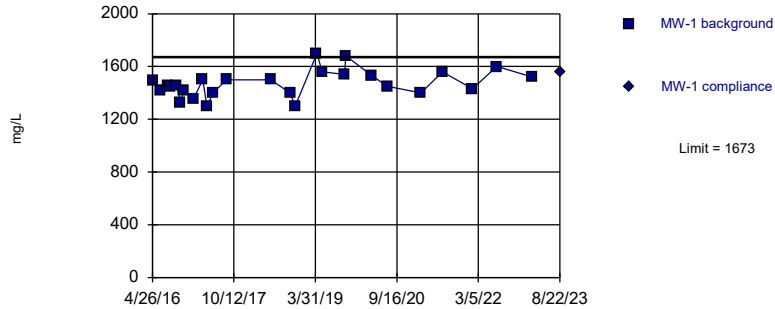


Background Data Summary: Mean=0.2092, Std. Dev.=0.01917, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.914, critical = 0.873. Kappa = 2.044 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Fluoride Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

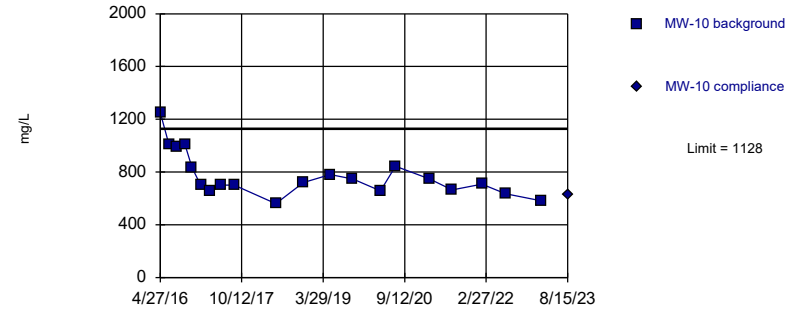


Background Data Summary: Mean=1471, Std. Dev.=101.6, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9678, critical = 0.891. Kappa = 1.981 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:21 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

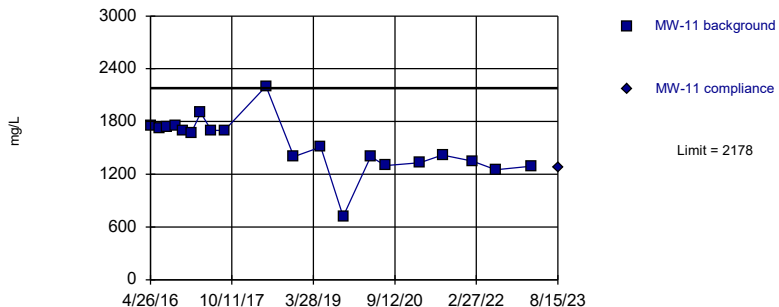


Background Data Summary: Mean=775.1, Std. Dev.=171.7, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.869, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

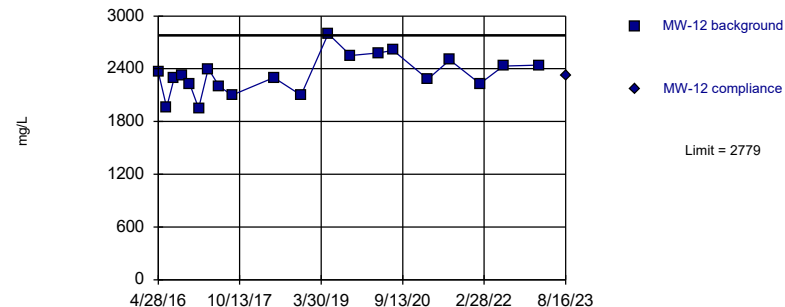


Background Data Summary: Mean=1539, Std. Dev.=310.3, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9316, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

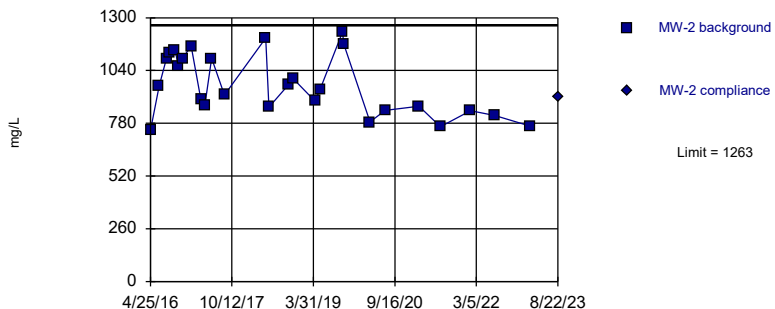


Background Data Summary: Mean=2332, Std. Dev.=217.3, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9841, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

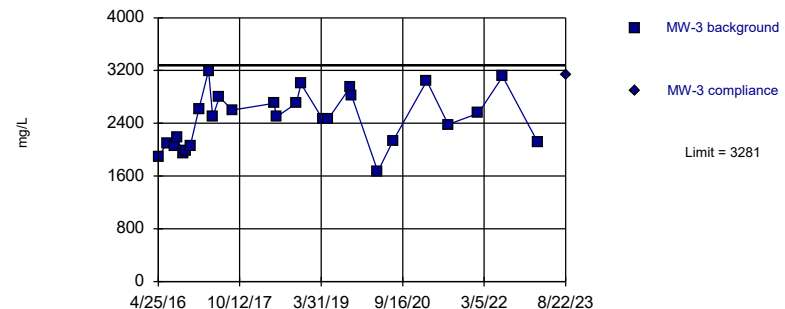


Background Data Summary: Mean=968.1, Std. Dev.=149.7, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9333, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

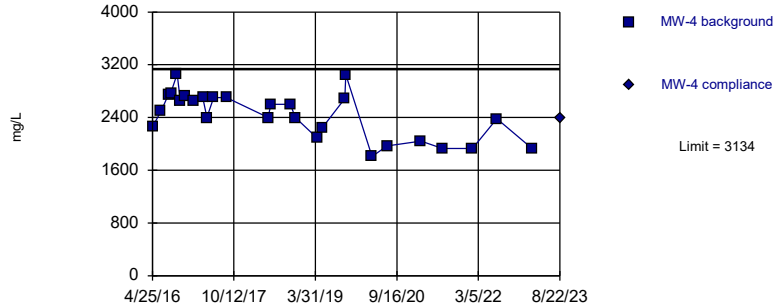


Background Data Summary: Mean=2464, Std. Dev.=414.3, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9674, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

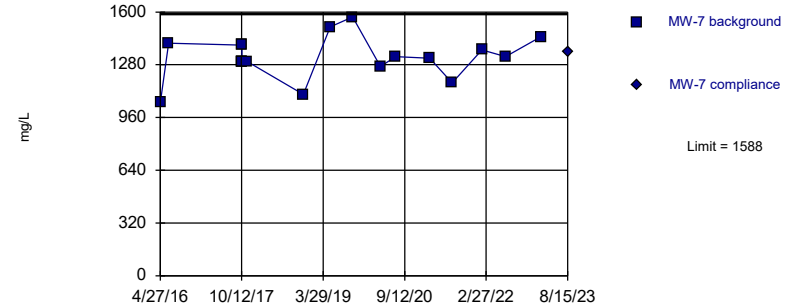


Background Data Summary: Mean=2441, Std. Dev.=351.3, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9355, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

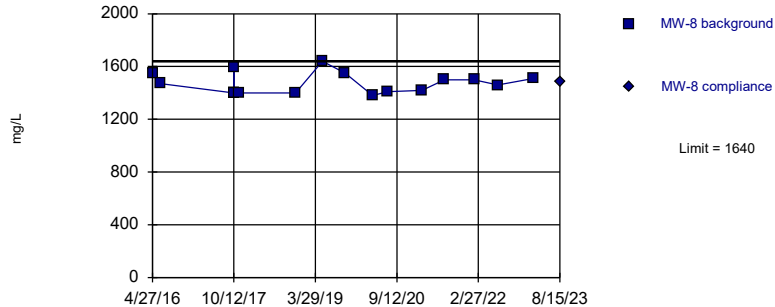


Background Data Summary: Mean=1325, Std. Dev.=126.2, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9478, critical = 0.901. Kappa = 2.081 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

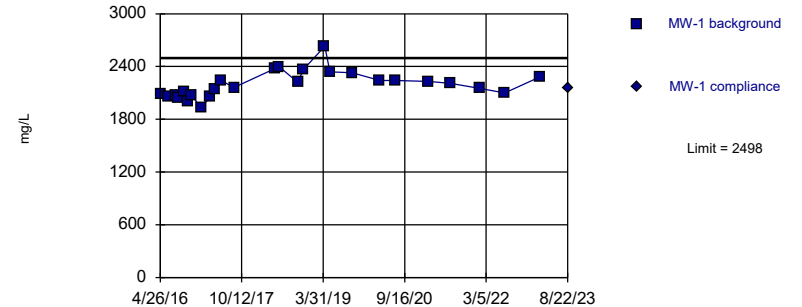


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Sulfate Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

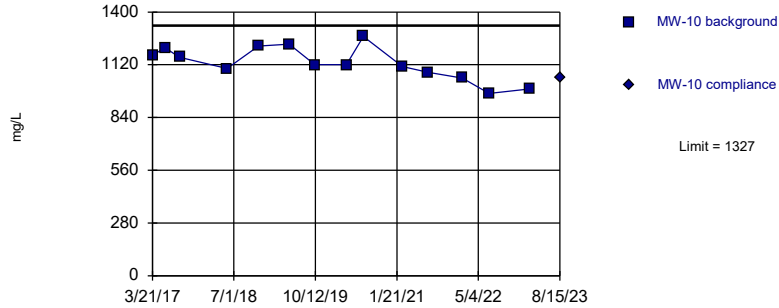


Background Data Summary: Mean=2195, Std. Dev.=152.7, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.891. Kappa = 1.981 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

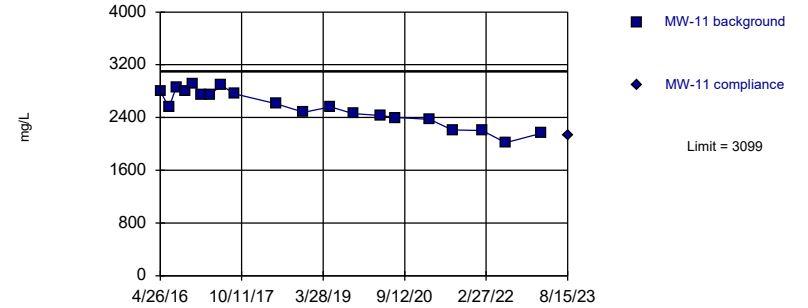


Background Data Summary: Mean=1128, Std. Dev.=88.95, n=14. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9706, critical = 0.874. Kappa = 2.236 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

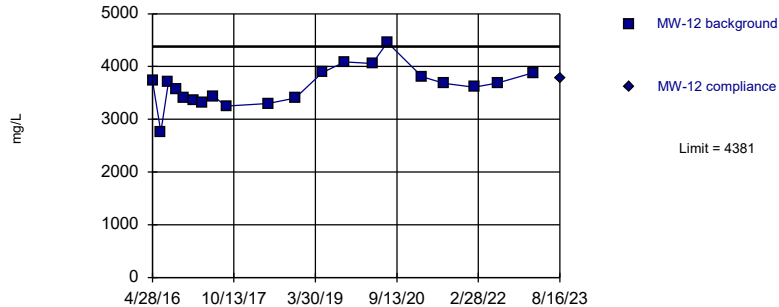


Background Data Summary: Mean=2549, Std. Dev.=267, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

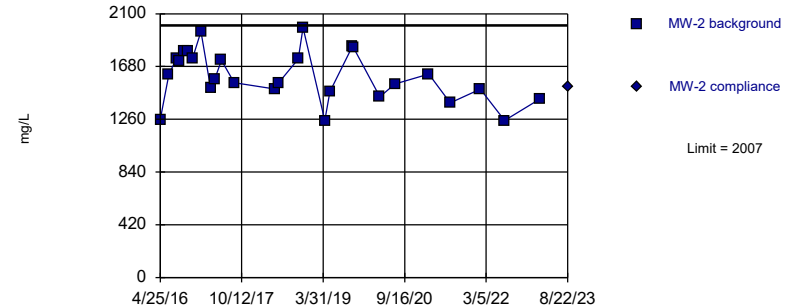


Background Data Summary: Mean=3621, Std. Dev.=369.4, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9737, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit Intrawell Parametric

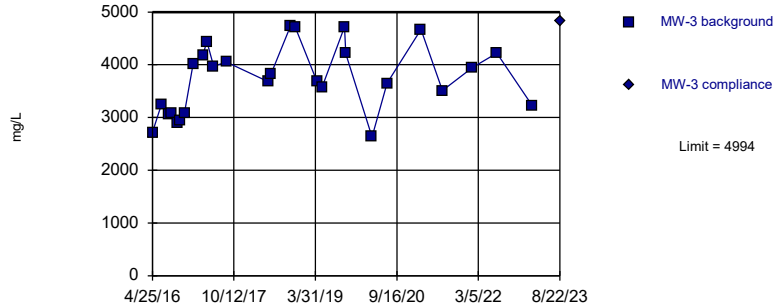


Background Data Summary: Mean=1606, Std. Dev.=203.5, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9651, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

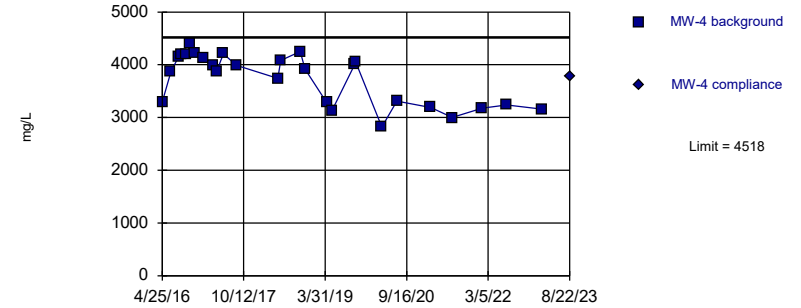


Background Data Summary: Mean=3729, Std. Dev.=641.6, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9508, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

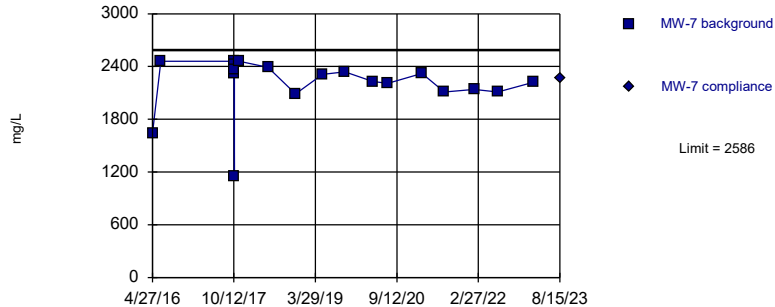


Background Data Summary (based on cube transformation): Mean=5.5e10, Std. Dev.=1.9e10, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8943, critical = 0.894. Kappa = 1.972 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric

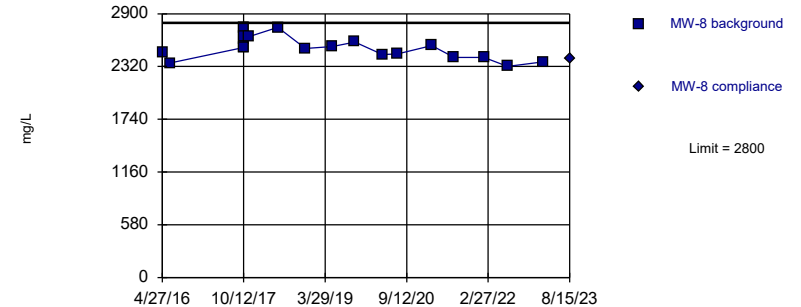


Background Data Summary (based on x^4 transformation): Mean=2.6e13, Std. Dev.=9.2e12, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8948, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2535, Std. Dev.=128.9, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.959, critical = 0.868. Kappa = 2.058 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Total Dissolved Solids Analysis Run 10/5/2023 12:22 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	151	
7/12/2021	149	
1/25/2022	150	
7/5/2022	168	
2/20/2023	151	
8/22/2023		183

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	279	
6/23/2016	256	
8/10/2016	245	
10/5/2016	225	
11/21/2016	179	
1/17/2017	168	
3/21/2017	152	
5/31/2017	130	
8/23/2017	147	
5/24/2018	159	
11/19/2018	160	
5/15/2019	186	
10/9/2019	146	
4/8/2020	164	
7/14/2020	208	
2/23/2021	151	
7/20/2021	149	
2/1/2022	155	
7/6/2022	150	
2/22/2023	152	
8/15/2023		188

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	400	
6/22/2016	398	
8/9/2016	399	
10/4/2016	389	
11/21/2016	386	
1/17/2017	344	
3/21/2017	396	
5/30/2017	370	
8/23/2017	374	
5/22/2018	375	
11/20/2018	370	
5/15/2019	380	
10/10/2019	373	
4/6/2020	333	
7/13/2020	350	
2/24/2021	325	
7/21/2021	322	
2/1/2022	335	
7/5/2022	333	
2/21/2023	314	
8/15/2023		367

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	349	
6/22/2016	374	
8/10/2016	348	
10/5/2016	344	
11/22/2016	342	
1/18/2017	359	
3/21/2017	352	
5/31/2017	313	
8/23/2017	349	
5/24/2018	349	
11/19/2018	348	
5/15/2019	411	
10/9/2019	359	
4/6/2020	354	
7/13/2020	392	
2/24/2021	346	
7/20/2021	330	
2/1/2022	334	
7/5/2022	330	
2/22/2023	304	
8/16/2023		313

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	178	
7/12/2021	159	
1/25/2022	179	
7/5/2022	172	
2/20/2023	160	
8/22/2023		168

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	312	
7/12/2021	252	
1/25/2022	285	
7/5/2022	369	
2/20/2023	210	
8/22/2023		359

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	271	
7/12/2021	242	
1/25/2022	259	
7/5/2022	294	
2/21/2023	232	
8/22/2023		287

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	292	
7/20/2021	254	
1/31/2022	278	
7/6/2022	280	
2/21/2023	286	
8/15/2023		339

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	306	
7/20/2021	281	
2/1/2022	284	
7/6/2022	306	
2/21/2023	327	
8/15/2023		328

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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)	
2/22/2021	0.082 (J)	
7/12/2021	0.125	
1/25/2022	0.101	
7/5/2022	0.11 (J)	
2/20/2023	0.221	
8/22/2023		0.159

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	0.337	
6/23/2016	0.155 (J)	
8/10/2016	0.123 (J)	
10/5/2016	0.086 (J)	
11/21/2016	0.056 (J)	
1/17/2017	0.103 (J)	
3/21/2017	0.15	
5/31/2017	0.18	
8/23/2017	0.23	
2/15/2018	0.23	
5/24/2018	0.13	
11/19/2018	0.26	
5/15/2019	0.276	
10/9/2019	0.142	
4/8/2020	0.243	
7/14/2020	0.224	
2/23/2021	0.202	
7/20/2021	0.268	
2/1/2022	0.157	
7/6/2022	0.145	
2/22/2023	0.132	
8/15/2023		0.0889 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	0.084 (J)	
6/22/2016	0.106 (J)	
8/9/2016	0.092 (J)	
10/4/2016	0.049 (J)	
11/21/2016	<0.3	
1/17/2017	0.044 (J)	
3/21/2017	0.08 (J)	
5/30/2017	0.096 (J)	
8/23/2017	0.11	
2/14/2018	0.1	
5/22/2018	0.1	
11/20/2018	0.1	
5/15/2019	0.1	
10/10/2019	0.0915 (J)	
4/6/2020	0.118	
7/13/2020	0.108	
2/24/2021	0.107	
7/21/2021	0.16	
2/1/2022	0.0848 (J)	
7/5/2022	0.124 (J)	
2/21/2023	0.129	
8/15/2023		0.122 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	0.153 (J)	
6/22/2016	0.146 (J)	
8/10/2016	0.127 (J)	
10/5/2016	0.09 (J)	
11/22/2016	0.012 (J)	
1/18/2017	0.071 (J)	
3/21/2017	0.09 (J)	
5/31/2017	0.11	
8/23/2017	0.13	
2/15/2018	0.12	
5/24/2018	0.15	
11/19/2018	0.16	
5/15/2019	0.185	
10/9/2019	0.215	
4/6/2020	0.254	
7/13/2020	0.161	
2/24/2021	0.172	
7/20/2021	0.219	
2/1/2022	0.174	
7/5/2022	0.275	
2/22/2023	0.239	
8/16/2023		0.134

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.209	
7/12/2021	0.196	
1/25/2022	0.204	
7/5/2022	0.2	
2/20/2023	0.267	
8/22/2023		0.184

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.246	
7/12/2021	0.287	
1/25/2022	0.325	
7/5/2022	0.386	
2/20/2023	0.379	
8/22/2023		0.283

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/22/2021	0.357	
7/12/2021	0.35	
1/25/2022	0.364	
7/5/2022	0.362	
2/21/2023	0.415	
8/22/2023		0.358

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - IntraWell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/23/2021	0.2	
7/20/2021	0.286	
1/31/2022	0.173	
7/6/2022	0.208	
2/21/2023	0.216	
8/15/2023		0.154

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
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	
2/23/2021	0.208	
7/20/2021	0.262	
2/1/2022	0.177	
7/6/2022	0.173	
2/21/2023	0.212	
8/15/2023		0.174

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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 (o)	
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	
2/22/2021	1400	
7/12/2021	1560	
1/25/2022	1430	
7/5/2022	1600	
2/20/2023	1520	
8/22/2023		1560

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - IntraWell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	1250	
6/23/2016	1010	
8/10/2016	992	
10/5/2016	1010	
11/21/2016	834	
1/17/2017	700	
3/21/2017	660	
5/31/2017	700	
8/23/2017	700	
5/24/2018	560	
11/19/2018	720	
5/15/2019	780	
10/9/2019	748	
4/8/2020	658	
7/14/2020	845	
2/23/2021	747	
7/20/2021	665	
2/1/2022	707	
7/6/2022	635	
2/22/2023	581	
8/15/2023		631

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - IntraWell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	1750	
6/22/2016	1720	
8/9/2016	1740	
10/4/2016	1750	
11/21/2016	1690	
1/17/2017	1670	
3/21/2017	1900	
5/30/2017	1700	
8/23/2017	1700	
5/22/2018	2200	
11/20/2018	1400	
5/15/2019	1510	
10/10/2019	719	
4/6/2020	1400	
7/13/2020	1300	
2/24/2021	1330	
7/21/2021	1420	
2/1/2022	1350	
7/5/2022	1250	
2/21/2023	1290	
8/15/2023		1280

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - IntraWell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	2360	
6/22/2016	1960	
8/10/2016	2300	
10/5/2016	2330	
11/22/2016	2220	
1/18/2017	1950	
3/21/2017	2400	
5/31/2017	2200	
8/23/2017	2100	
5/24/2018	2300	
11/19/2018	2100	
5/15/2019	2800	
10/9/2019	2550	
4/6/2020	2580	
7/13/2020	2610	
2/24/2021	2280	
7/20/2021	2500	
2/1/2022	2230	
7/5/2022	2430	
2/22/2023	2440	
8/16/2023		2320

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	864	
7/12/2021	763	
1/25/2022	842	
7/5/2022	819	
2/20/2023	767	
8/22/2023		912

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - IntraWell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	3040	
7/12/2021	2380	
1/25/2022	2550	
7/5/2022	3110	
2/20/2023	2110	
8/22/2023		3140

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - IntraWell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/22/2021	2040	
7/12/2021	1930	
1/25/2022	1930	
7/5/2022	2380	
2/21/2023	1930	
8/22/2023		2390

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - IntraWell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	1320	
7/20/2021	1170	
1/31/2022	1370	
7/6/2022	1330	
2/21/2023	1450	
8/15/2023		1360

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intravel
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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 (o)	
11/20/2018	1400	
5/15/2019	1640	
10/9/2019	1550	
4/8/2020	1380	
7/15/2020	1410	
2/23/2021	1420	
7/20/2021	1500	
2/1/2022	1500	
7/6/2022	1460	
2/21/2023	1510	
8/15/2023		1480

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-1	MW-1
4/26/2016	2080	
6/20/2016	2060	
8/8/2016	2070	
8/24/2016	2040	
10/3/2016	2110	
10/26/2016	2000	
11/21/2016	2070	
1/17/2017	1930	
3/22/2017	2060	
4/18/2017	2140	
5/30/2017	2240	
8/23/2017	2160	
5/22/2018	2380	
6/12/2018	2400	
10/17/2018	2220	
11/19/2018	2360	
4/10/2019	2630	
5/14/2019	2340	
10/8/2019	2330	
10/16/2019	3650 (o)	
4/6/2020	2240	
7/13/2020	2240	
2/22/2021	2230	
7/12/2021	2210	
1/25/2022	2150	
7/5/2022	2100	
2/20/2023	2280	
8/22/2023		2160

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-10	MW-10
4/27/2016	1940	
6/23/2016	1680	
8/10/2016	1660	
10/5/2016	1640	
11/21/2016	1390	
1/17/2017	1300	
3/21/2017	1170	
5/31/2017	1210	
8/23/2017	1160	
5/24/2018	1100	
11/19/2018	1220	
5/15/2019	1230	
10/9/2019	1120	
4/8/2020	1120	
7/14/2020	1270	
2/23/2021	1110	
7/20/2021	1080	
2/1/2022	1050	
7/6/2022	967	
2/22/2023	991	
8/15/2023		1050

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-11	MW-11
4/26/2016	2800	
6/22/2016	2550	
8/9/2016	2860	
10/4/2016	2800	
11/21/2016	2920	
1/17/2017	2750	
3/21/2017	2750	
5/30/2017	2890	
8/23/2017	2760	
5/22/2018	2610	
11/20/2018	2480	
5/15/2019	2560	
10/10/2019	2460	
4/6/2020	2430	
7/13/2020	2400	
2/24/2021	2370	
7/21/2021	2210	
2/1/2022	2200	
7/5/2022	2020	
2/21/2023	2160	
8/15/2023		2130

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-12	MW-12
4/28/2016	3730	
6/22/2016	2760	
8/10/2016	3710	
10/5/2016	3580	
11/22/2016	3400	
1/18/2017	3360	
3/21/2017	3320	
5/31/2017	3440	
8/23/2017	3250	
5/24/2018	3300	
11/19/2018	3400	
5/15/2019	3890	
10/9/2019	4090	
4/6/2020	4060	
7/13/2020	4460	
2/24/2021	3810	
7/20/2021	3680	
2/1/2022	3610	
7/5/2022	3690	
2/22/2023	3880	
8/16/2023		3780

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-2	MW-2
4/25/2016	1260	
6/20/2016	1620	
8/8/2016	1740	
8/24/2016	1720	
10/3/2016	1800	
10/26/2016	1800	
11/21/2016	1740	
1/17/2017	1960	
3/22/2017	1510	
4/18/2017	1580	
5/31/2017	1730	
8/23/2017	1550	
5/22/2018	1500	
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	
2/22/2021	1620	
7/12/2021	1390	
1/25/2022	1500	
7/5/2022	1250	
2/20/2023	1420	
8/22/2023		1520

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-3	MW-3
4/25/2016	2720	
6/22/2016	3250	
8/9/2016	3050	
8/24/2016	3080	
10/4/2016	2900	
10/26/2016	2940	
11/21/2016	3090	
1/18/2017	4020	
3/22/2017	4180	
4/18/2017	4440	
5/31/2017	3970	
8/23/2017	4050	
5/24/2018	3680	
6/12/2018	3820	
10/17/2018	4730	
11/19/2018	4710	
4/10/2019	3680	
5/14/2019	3580	
10/8/2019	4720	
10/16/2019	4210	
4/6/2020	2630	
7/13/2020	3650	
2/22/2021	4670	
7/12/2021	3510	
1/25/2022	3950	
7/5/2022	4220	
2/20/2023	3230	
8/22/2023		4820

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	MW-4	MW-4
4/25/2016	3300	
6/20/2016	3870	
8/9/2016	4140	
8/24/2016	4190	
10/3/2016	4190	
10/26/2016	4400	
11/21/2016	4230	
1/18/2017	4120	
3/22/2017	3980	
4/18/2017	3880	
5/31/2017	4210	
8/23/2017	3990	
5/23/2018	3740	
6/12/2018	4080	
10/17/2018	4250	
11/19/2018	3920	
4/10/2019	3280	
5/14/2019	3130	
10/10/2019	4000	
10/16/2019	4060	
4/6/2020	2820	
7/14/2020	3310	
2/22/2021	3190	
7/12/2021	3000	
1/25/2022	3180	
7/5/2022	3240	
2/21/2023	3160	
8/22/2023		3780

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	2320	
7/20/2021	2110	
1/31/2022	2140	
7/6/2022	2110	
2/21/2023	2220	
8/15/2023		2270

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/5/2023 12:35 PM View: Appendix III - Intrawell
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

	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	
2/23/2021	2550	
7/20/2021	2420	
2/1/2022	2420	
7/6/2022	2320	
2/21/2023	2370	
8/15/2023		2410

FIGURE G.

Appendix III Interwell Prediction Limits - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-10	0.1015	n/a	8/15/2023	0.146	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	8/15/2023	0.105	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	8/16/2023	0.165	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	8/15/2023	50.4	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	8/16/2023	11	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	8/15/2023	6.51	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	8/15/2023	4.92	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	8/15/2023	7.53	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	8/15/2023	7.62	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	8/15/2023	7.47	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	8/15/2023	7.58	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2

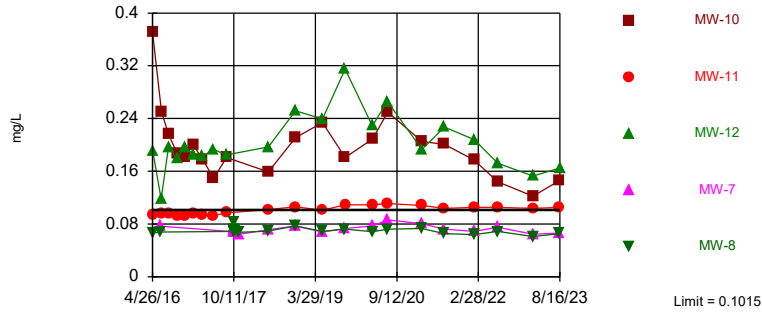
Appendix III Interwell Prediction Limits - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-10	0.1015	n/a	8/15/2023	0.146	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-11	0.1015	n/a	8/15/2023	0.105	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-12	0.1015	n/a	8/16/2023	0.165	Yes	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-7	0.1015	n/a	8/15/2023	0.0663J	No	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Boron (mg/L)	MW-8	0.1015	n/a	8/15/2023	0.0654J	No	111	n/a	n/a	26.13	n/a	n/a	0.0001613	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-10	4.6	n/a	8/15/2023	3.54	No	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	4.6	n/a	8/15/2023	50.4	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-12	4.6	n/a	8/16/2023	11	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	4.6	n/a	8/15/2023	6.51	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	4.6	n/a	8/15/2023	4.92	Yes	112	n/a	n/a	2.679	n/a	n/a	0.0001584	NP Inter (normality) 1 of 2
pH (SU)	MW-10	6.35	4.51	8/15/2023	7.53	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-11	6.35	4.51	8/15/2023	7.62	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-12	6.35	4.51	8/16/2023	5.81	No	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-7	6.35	4.51	8/15/2023	7.47	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (SU)	MW-8	6.35	4.51	8/15/2023	7.58	Yes	113	n/a	n/a	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2

Exceeds Limit: MW-10, MW-11, MW-12

Prediction Limit
Interwell Non-parametric

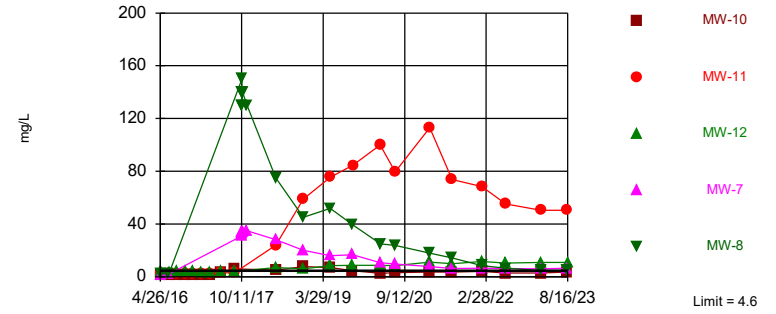


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 111 background values. 26.13% NDs. Annual per-constituent alpha = 0.001612. Individual comparison alpha = 0.0001613 (1 of 2). Comparing 5 points to limit.

Constituent: Boron Analysis Run 10/2/2023 5:00 PM View: Appendix III - Interwell
Plant Gorgas Data: Gorgas BALF CCR

Exceeds Limit: MW-11, MW-12, MW-7, MW-8

Prediction Limit
Interwell Non-parametric

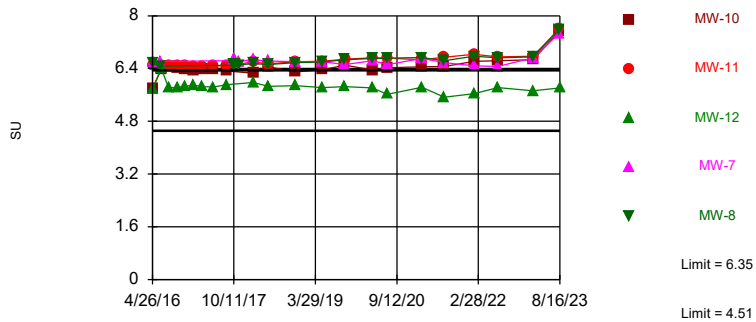


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 112 background values. 2.679% NDs. Annual per-constituent alpha = 0.001583. Individual comparison alpha = 0.0001584 (1 of 2). Comparing 5 points to limit.

Constituent: Chloride Analysis Run 10/2/2023 5:00 PM View: Appendix III - Interwell
Plant Gorgas Data: Gorgas BALF CCR

Exceeds Limits: MW-10, MW-11, MW-7, MW-8

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 113 background values. Annual per-constituent alpha = 0.003107. Individual comparison alpha = 0.000311 (1 of 2). Comparing 5 points to limit.

Constituent: pH Analysis Run 10/2/2023 5:00 PM View: Appendix III - Interwell
Plant Gorgas Data: Gorgas BALF CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/2/2023 5:05 PM View: Appendix III - Interwell
 Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)	MW-2 (bg)	MW-4 (bg)	MW-11	MW-1 (bg)	MW-10	MW-8	MW-12	MW-7
4/25/2016	0.028 (J)	0.0241 (J)	0.0414 (J)						
4/26/2016				0.094 (J)	0.0231 (J)				
4/27/2016						0.371	0.0662 (J)		0.253 (o)
4/28/2016								0.19	
6/20/2016		0.0284 (J)	0.0434 (J)		0.0227 (J)				
6/21/2016							0.0681 (J)		0.0768 (J)
6/22/2016	0.0433 (J)			0.0959 (J)				0.118	
6/23/2016						0.251			
8/8/2016		0.034 (J)			0.0278 (J)				
8/9/2016	0.0429 (J)		0.0453 (J)	0.0964 (J)					
8/10/2016						0.216		0.197	
8/24/2016	0.0431 (J)	0.0316 (J)	0.0451 (J)		0.0247 (J)				
10/3/2016		0.0367 (J)	0.0511 (J)		0.0307 (J)				
10/4/2016	0.04 (J)			0.0916 (J)					
10/5/2016						0.187		0.179	
10/26/2016	0.0375 (J)	0.0331 (J)	0.0507 (J)		0.0241 (J)				
11/21/2016	0.0406 (J)	0.035 (J)	0.0458 (J)	0.0929 (J)	0.0202 (J)	0.182			
11/22/2016								0.197	
1/17/2017		0.0259 (J)		0.0963 (J)	0.0201 (J)	0.2			
1/18/2017	0.0548 (J)		0.0445 (J)					0.186	
3/21/2017				0.0947 (J)		0.178		0.183	
3/22/2017	0.0344 (J)	0.0243 (J)	0.0432 (J)		0.0224 (J)				
4/18/2017	<0.1015	0.0206 (J)	0.0409 (J)		<0.1015				
5/30/2017				0.0926 (J)	<0.1015				
5/31/2017	0.0454 (J)	0.0234 (J)	0.0392 (J)			0.149		0.193	
8/23/2017	0.0425 (J)	0.0267 (J)	0.042 (J)	0.0968 (J)	0.0253 (J)	0.181		0.185	
10/12/2017							0.0687 (J)		0.0685 (J)
10/13/2017							0.0831 (J)		0.0674 (J)
10/14/2017							0.0702 (J)		0.0756 (J)
10/15/2017							0.0702 (J)		0.0719 (J)
10/16/2017							0.0707 (J)		0.0726 (J)
10/17/2017							0.0695 (J)		0.0716 (J)
11/16/2017							0.0675 (J)		0.0644 (J)
5/22/2018		0.0251 (J)		0.102	0.0224 (J)				
5/23/2018			0.0433 (J)				0.0693 (J)		0.0715 (J)
5/24/2018	0.0339 (J)					0.159		0.197	
6/12/2018	0.0371 (J)	0.0275 (J)	0.0478 (J)		0.0214 (J)				
10/17/2018	0.0596 (J)	0.0321 (J)	0.0468 (J)		0.0216 (J)				
11/19/2018	0.0514 (J)	0.0324 (J)	0.0526 (J)		0.0237 (J)	0.211		0.252	
11/20/2018				0.106			0.0771 (J)		0.0772 (J)
4/10/2019	<0.1015	<0.1015	0.0438 (J)		0.0304 (J)				
5/14/2019	<0.1015	<0.1015	<0.203 (o)		<0.1015				
5/15/2019				0.101 (J)		0.234	0.0689 (J)	0.239	0.0678 (J)
10/8/2019	0.0537 (J)	0.0371 (J)			<0.1015				0.073 (J)
10/9/2019						0.181	0.0723 (J)	0.315	
10/10/2019			0.0487 (J)	0.109					
10/16/2019	0.05 (J)	0.0419 (J)	0.0505 (J)		0.0385 (J)				
4/6/2020	<0.1015	<0.1015	0.0428 (J)	0.109	<0.1015			0.229	
4/8/2020						0.209	0.0683 (J)		0.077 (J)
7/13/2020	0.0366 (J)	<0.1015		0.111	<0.1015			0.266	
7/14/2020			0.0441 (J)			0.25			0.0865 (J)
7/15/2020							0.0723 (J)		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/2/2023 5:05 PM View: Appendix III - Interwell
 Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)	MW-2 (bg)	MW-4 (bg)	MW-11	MW-1 (bg)	MW-10	MW-8	MW-12	MW-7
2/22/2021	<0.1015	<0.1015	0.0397 (J)		0.0307 (J)				
2/23/2021						0.205	0.0731 (J)		0.0803 (J)
2/24/2021				0.108				0.193	
7/12/2021	<0.1015	<0.1015	0.0411 (J)		<0.1015				
7/20/2021						0.201	0.0656 (J)	0.227	0.0721 (J)
7/21/2021				0.104					
1/25/2022	<0.1015	<0.1015	0.0408 (J)		<0.1015				
1/31/2022									0.0689 (J)
2/1/2022				0.105		0.177	0.0639 (J)	0.208	
7/5/2022	0.0374 (J)	<0.1015	0.0433 (J)	0.105	<0.1015			0.172	
7/6/2022						0.144	0.0686 (J)		0.0752 (J)
2/20/2023	<0.1015	<0.1015			<0.1015				
2/21/2023			0.0408 (J)	0.104			0.0609 (J)		0.0645 (J)
2/22/2023						0.122		0.153	
8/15/2023				0.105		0.146	0.0654 (J)		0.0663 (J)
8/16/2023								0.165	
8/22/2023	0.0373 (J)	<0.1015	0.0448 (J)		<0.1015				

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/2/2023 5:05 PM View: Appendix III - Interwell

Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)	MW-4 (bg)	MW-2 (bg)	MW-1 (bg)	MW-11	MW-7	MW-10	MW-8	MW-12
4/25/2016	1.32	1.53	1.9						
4/26/2016				1.94	2.16				
4/27/2016						1.71	1.46	2.34	
4/28/2016									4.12
6/20/2016		1.85	3.43	2.09					
6/21/2016						2.04		2.29	
6/22/2016	1.46				2.16				3.44
6/23/2016							1.49		
8/8/2016			3.31	2.18					
8/9/2016	1.35	1.95			2.19				
8/10/2016							1.55		4.15
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				2.21				
10/5/2016							1.58		4.12
10/26/2016	1.27	2.07	3.35	2.34					
11/21/2016	1.38	2.39	3.34	2.5	2.24		1.62		
11/22/2016									3.98
1/17/2017			3.58	2.68	2.23		1.61		
1/18/2017	1.34	1.9							3.6
3/21/2017					2.5		1.6 (J)		3.6
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	3.2				
5/31/2017	1.5 (J)	2.1	4.4				3.2		3.9
8/23/2017	1.8 (J)	2.3	4.4	2.7	2.8		6.1		4.2
10/12/2017						31		150	
10/13/2017						32		130	
10/14/2017						33		140	
10/15/2017						34		130	
10/16/2017						34		140	
10/17/2017						34		140	
11/16/2017						35		130	
5/22/2018			3.2	2.3	24				
5/23/2018		2				28		75	
5/24/2018	1.6 (J)						5		7.1
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)			7.8		6.1
11/20/2018					59	20		45	
4/10/2019	2.25	1.88	1.76	2.36					
5/14/2019	2.28	1.82	2.98	2.28					
5/15/2019					75.4	15.9	6.93	52	8.51
10/8/2019	1.36		4.26	2.31		16.8			
10/9/2019							4.51	39.2	8.73
10/10/2019		1.93			84.6				
10/16/2019	1.4	1.92	4.04	2.42					
4/6/2020	1.72	1.5	2.43	2.01	100				8.58
4/8/2020						10.6	2.64	24.9	
7/13/2020	1.34		4.05	2.1	79.6				8.35
7/14/2020		1.61				9.68	3.09		
7/15/2020								23.8	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/2/2023 5:05 PM View: Appendix III - Interwell
Plant Gorgas Data: Gorgas BALF CCR

	MW-3 (bg)	MW-4 (bg)	MW-2 (bg)	MW-1 (bg)	MW-11	MW-7	MW-10	MW-8	MW-12
2/22/2021	2.22	1.52	1.72	2.16					
2/23/2021						7.85	3.63	17.9	
2/24/2021					113				11.2
7/12/2021	2.13	1.56	2.36	2.19					
7/20/2021						6.35	3.64	14.3	9.85
7/21/2021					73.8				
1/25/2022	2.12	1.54	2.14	2.09					
1/31/2022						6.4			
2/1/2022					68.3		3.97	8.56	11.5
7/5/2022	1.59	1.63	2.53	2.07	55.200001				10.5
7/6/2022						6.25	2.79	6.5	
2/20/2023	1.94		1.7	2.05					
2/21/2023		1.58			50.400002	6.12		4.86	
2/22/2023							2.77		10.9
8/15/2023					50.400002	6.51	3.54	4.92	
8/16/2023									11
8/22/2023	1.31	1.86	3.13	2.38					

Prediction Limit

Constituent: pH (SU) Analysis Run 10/2/2023 5:05 PM View: Appendix III - Interwell
 Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-4 (bg)	MW-3 (bg)	MW-1 (bg)	MW-11	MW-7	MW-8	MW-10	MW-12
4/25/2016	5.94	6.22	5.56						
4/26/2016				5.2	6.49				
4/27/2016						6.6	6.55	5.8	
4/28/2016									5.78
6/20/2016	5.96	6.21		5.18					
6/21/2016						6.62	6.47		
6/22/2016			5.57		6.51				6.41
6/23/2016								6.38	
8/8/2016	5.88			5.12					
8/9/2016		6.11	5.67		6.49				
8/10/2016								6.47	5.82
8/24/2016		6.11	5.63						
10/3/2016	5.91 (D)	6.13 (D)		5.21 (D)					
10/4/2016			5.69 (D)		6.51 (D)				
10/5/2016								6.42 (D)	5.82 (D)
10/26/2016	5.84	6.12	5.56	5.2					
11/21/2016	5.82 (D)	6.09 (D)	5.42 (D)	5.19 (D)	6.48			6.38	
11/22/2016									5.86
1/17/2017	5.87 (D)			5.17 (D)	6.46			6.35	
1/18/2017		6.09 (D)	5.11 (D)						5.9
3/21/2017					6.47			6.38	5.85
3/22/2017	6.01 (D)	6.15 (D)	4.52 (D)	5.2 (D)					
4/18/2017	6.02	6.19	5.84	5.2					
5/30/2017				5.14 (D)	6.48				
5/31/2017	5.85 (D)	6.13 (D)	4.56 (D)					6.4	5.84
8/23/2017	5.89 (D)	6.12 (D)	4.77 (D)	5.12 (D)	6.48			6.33	5.91
10/12/2017						6.64	6.5		
10/13/2017						6.64	6.51		
10/14/2017						6.66	6.53		
10/15/2017						6.67	6.53		
10/16/2017						6.67	6.54		
10/17/2017						6.66	6.54		
11/16/2017						6.62	6.51		
2/13/2018	6.21	6.22	5.67	5.18					
2/14/2018					6.6	6.67	6.55		
2/15/2018								6.26	5.98
5/22/2018	6.04			5.2	6.54				
5/23/2018		6.21				6.63	6.52		
5/24/2018			5.19					6.45	5.86
6/12/2018	5.95	6.16	4.79	5.15					
10/17/2018	5.9	6.12	4.75	5.12					
11/19/2018	6.03	6.16	3.77 (Eo)	5.09				6.3	5.88
11/20/2018					6.61	6.61	6.58		
4/10/2019	6.1	6.14	5.54	5.11					
5/14/2019	6.07	6.23	5.71	5.19					
5/15/2019					6.62	6.61	6.6	6.37	5.82
10/8/2019	5.96		4.98	5.12		6.52			
10/9/2019							6.67	6.5	5.85
10/10/2019		6.15			6.69				
10/16/2019	5.98	6.19	4.51	5.16					
4/6/2020	6.21	6.35	5.91	5.21	6.72				5.81
4/8/2020						6.64	6.7	6.36	

Prediction Limit

Constituent: pH (SU) Analysis Run 10/2/2023 5:05 PM View: Appendix III - Interwell
Plant Gorgas Data: Gorgas BALF CCR

	MW-2 (bg)	MW-4 (bg)	MW-3 (bg)	MW-1 (bg)	MW-11	MW-7	MW-8	MW-10	MW-12
7/13/2020	5.84		5.16	5.14	6.71				5.62
7/14/2020		6.2				6.52		6.42	
7/15/2020							6.71		
2/22/2021	6.1	6.19	5.59	5.06					
2/23/2021						6.7	6.73	6.45	
2/24/2021					6.67				5.83
7/12/2021	6.16	6.06	5.86	5.13					
7/20/2021						6.58	6.64	6.46	5.53
7/21/2021					6.74				
1/25/2022	6.22	6.3	5.9	5.11					
1/31/2022						6.48			
2/1/2022					6.83		6.77	6.62	5.64
7/5/2022	6.15	6.12	5.34	5.01	6.75				5.82
7/6/2022						6.46	6.72	6.64	
2/20/2023	6.24		6.01	5.07					
2/21/2023		6.35			6.77	6.72	6.75		
2/22/2023								6.67	5.72
8/15/2023					7.62	7.47	7.58	7.53	
8/16/2023									5.81
8/22/2023	5.81	6.28	5.04	4.92					

FIGURE H.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:17 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.001944	109	87	Yes	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	9.556	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.176	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-19.64	-114	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-10	0.04611	108	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05306	166	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.0485	177	92	Yes	22	0	n/a	n/a	0.01	NP

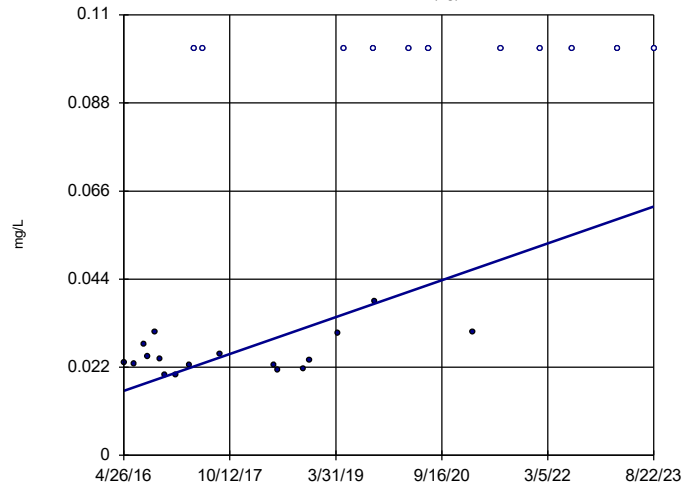
Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-1 (bg)	0.006286	161	131	Yes	28	39.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-10	-0.009517	-81	-87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	0.001944	109	87	Yes	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-12	0.002864	18	87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0.01089	199	131	Yes	28	35.71	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0.004142	102	131	No	28	28.57	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003115	-55	-124	No	27	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-1 (bg)	2.226	116	131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	0	4	131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	9.024	58	131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-4 (bg)	-6.626	-101	-131	No	28	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-7	-2.964	-39	-87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-0.02423	-54	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	9.556	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12	1.176	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.1196	-77	-131	No	28	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.04365	68	131	No	28	7.143	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.04985	-94	-131	No	28	3.571	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-7	-4.43	-81	-87	No	21	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-19.64	-114	-87	Yes	21	0	n/a	n/a	0.01	NP
pH (SU)	MW-1 (bg)	-0.01854	-181	-131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-10	0.04611	108	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-11	0.05306	166	92	Yes	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.04189	142	131	Yes	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	0.02424	22	131	No	28	0	n/a	n/a	0.01	NP
pH (SU)	MW-4 (bg)	0.01768	115	139	No	29	0	n/a	n/a	0.01	NP
pH (SU)	MW-7	-0.006697	-17	-92	No	22	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	0.0485	177	92	Yes	22	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

MW-1 (bg)

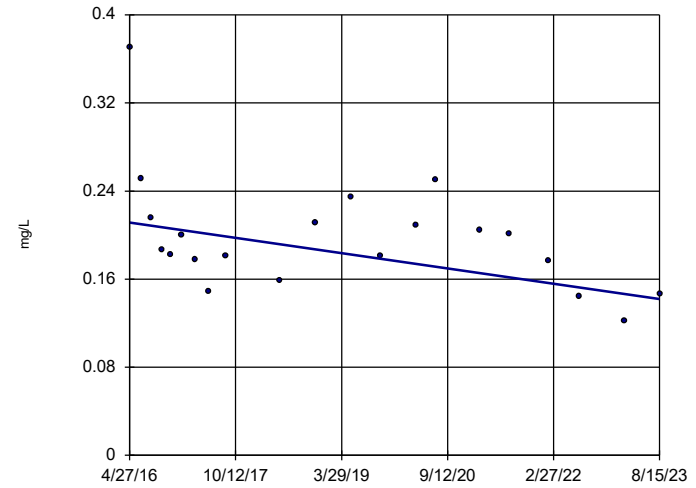


n = 28
Slope = 0.006286
units per year.
Mann-Kendall
statistic = 161
critical = 131
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-10

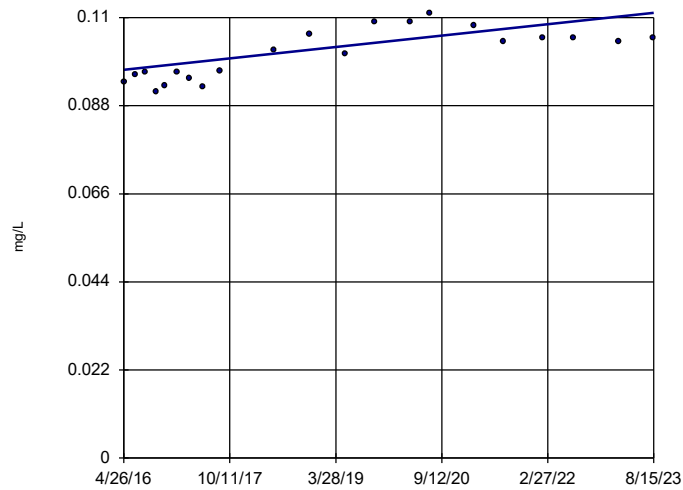


n = 21
Slope = -0.009517
units per year.
Mann-Kendall
statistic = -81
critical = -87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-11

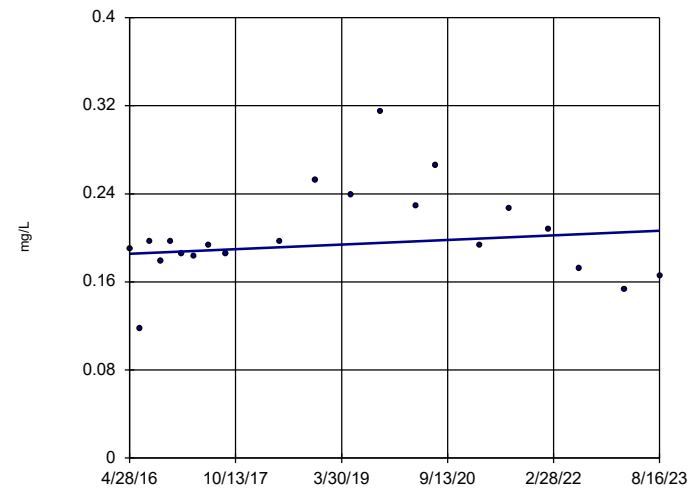


n = 21
Slope = 0.001944
units per year.
Mann-Kendall
statistic = 109
critical = 87
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-12

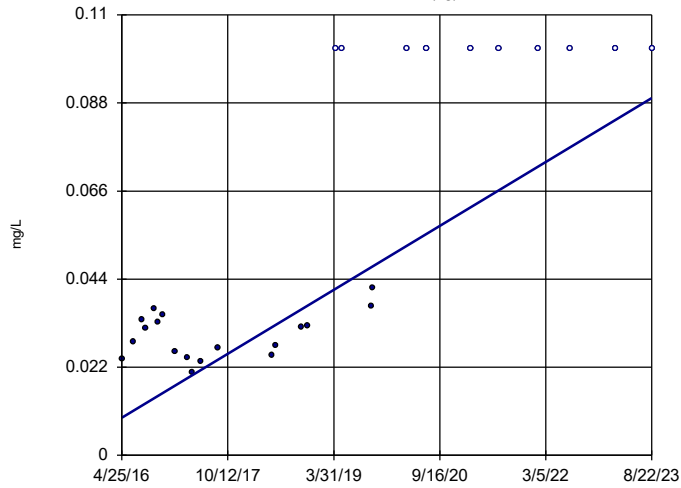


n = 21
Slope = 0.002864
units per year.
Mann-Kendall
statistic = 18
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)

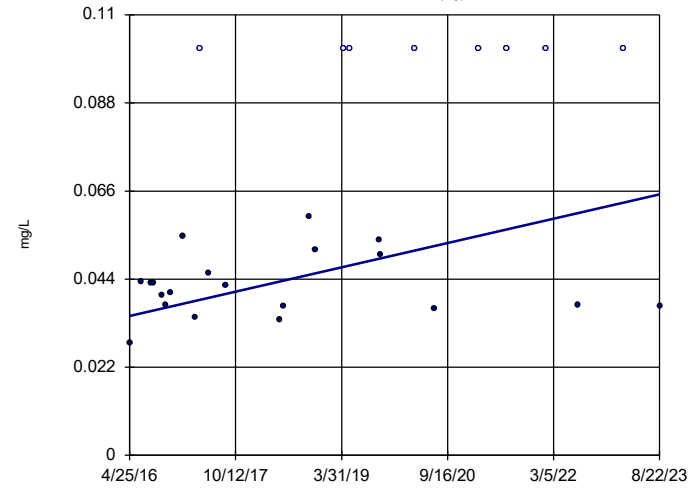


n = 28
Slope = 0.01089
units per year.
Mann-Kendall
statistic = 199
critical = 131
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-3 (bg)

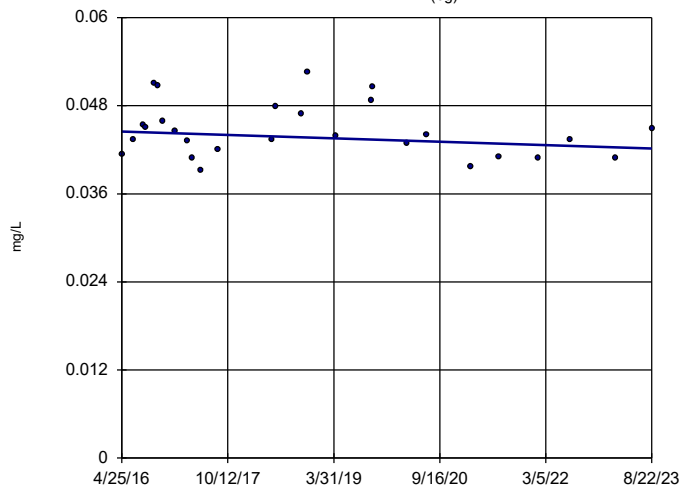


n = 28
Slope = 0.004142
units per year.
Mann-Kendall
statistic = 102
critical = 131
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-4 (bg)

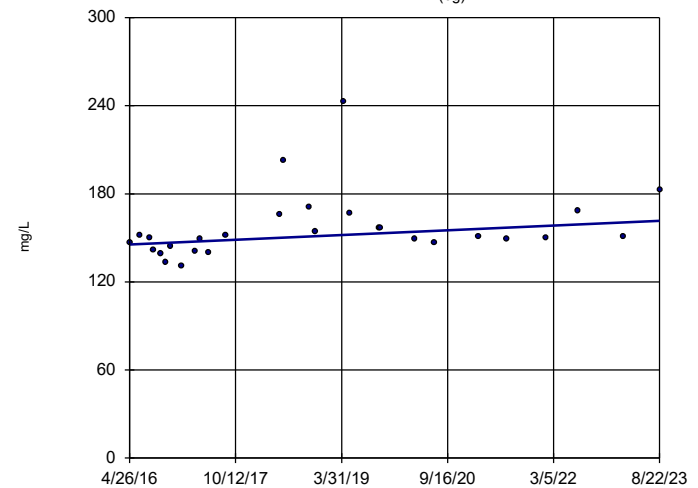


n = 27
Slope = -0.0003115
units per year.
Mann-Kendall
statistic = -55
critical = -124
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

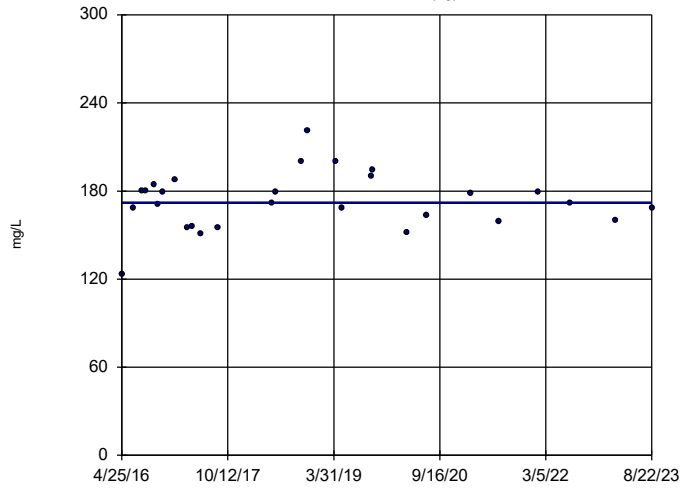


n = 28
Slope = 2.226
units per year.
Mann-Kendall
statistic = 116
critical = 131
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Calcium Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)

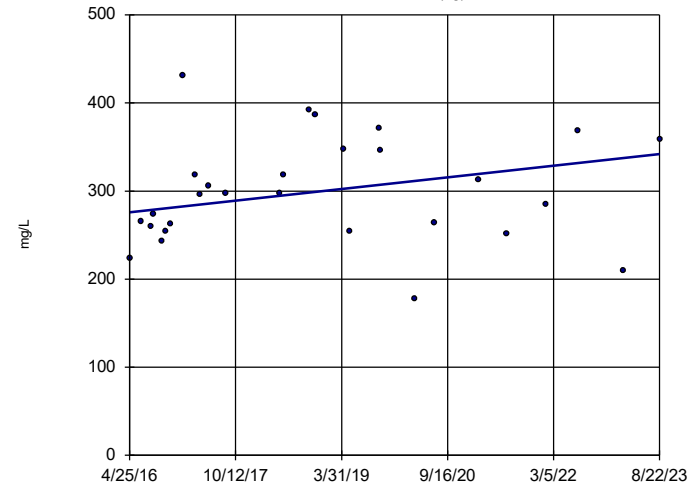


n = 28
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 4
 critical = 131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-3 (bg)

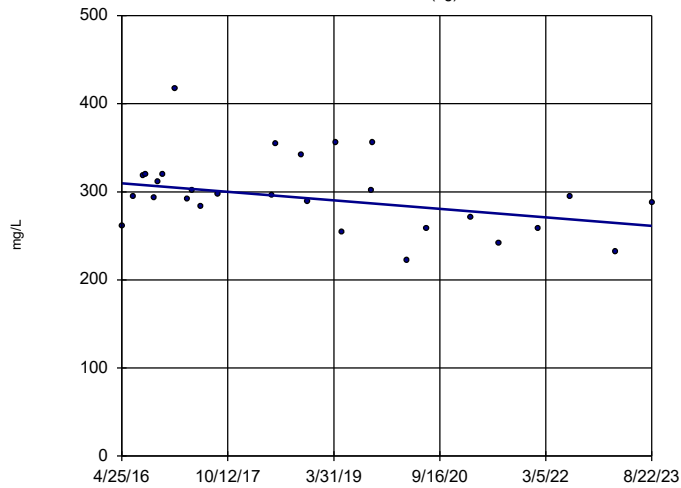


n = 28
 Slope = 9.024
 units per year.
 Mann-Kendall
 statistic = 58
 critical = 131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-4 (bg)

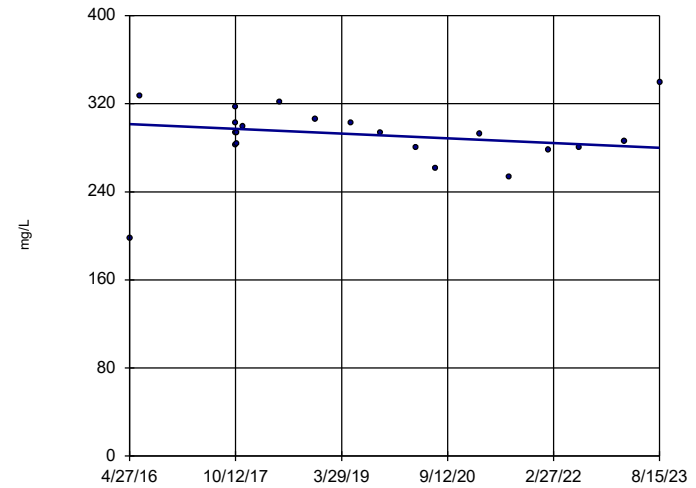


n = 28
 Slope = -6.626
 units per year.
 Mann-Kendall
 statistic = -101
 critical = -131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-7

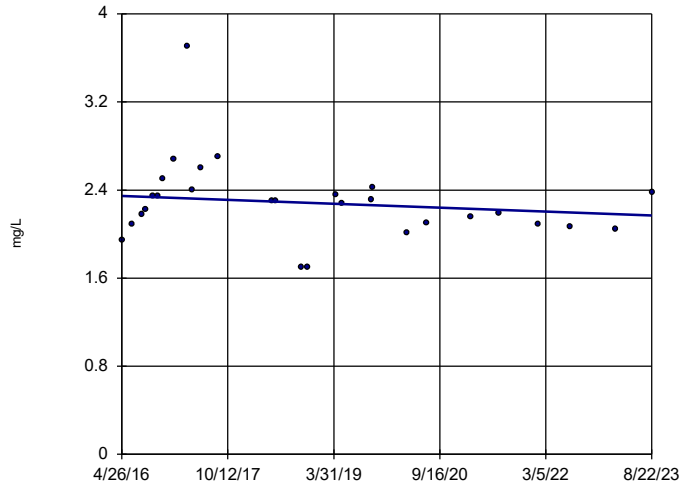


n = 21
 Slope = -2.964
 units per year.
 Mann-Kendall
 statistic = -39
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

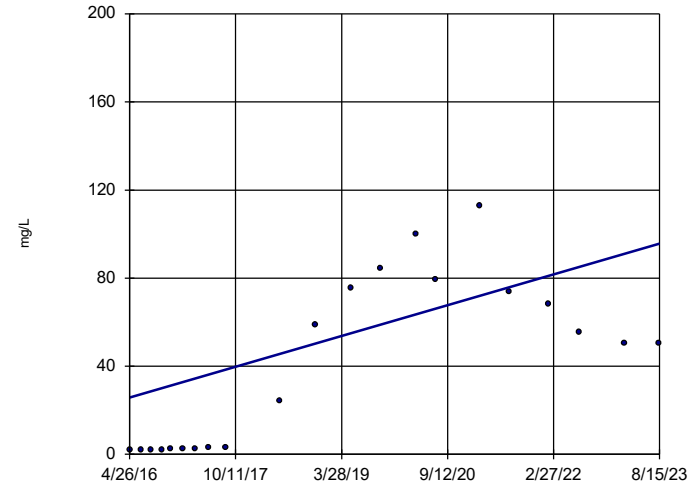


n = 28
 Slope = -0.02423
 units per year.
 Mann-Kendall
 statistic = -54
 critical = -131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-11

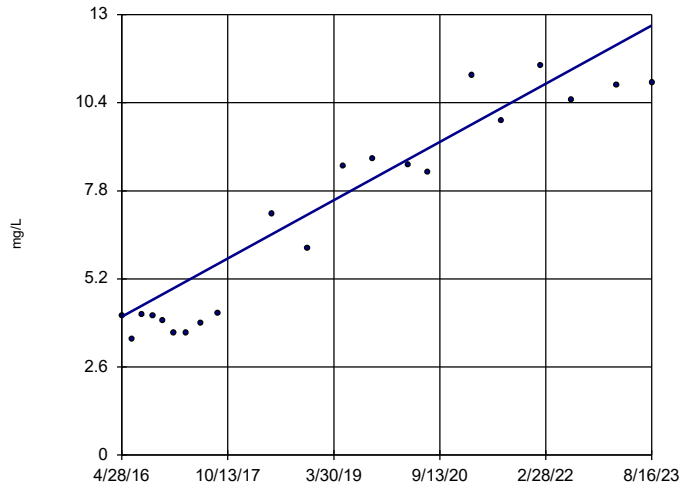


n = 21
 Slope = 9.556
 units per year.
 Mann-Kendall
 statistic = 126
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-12

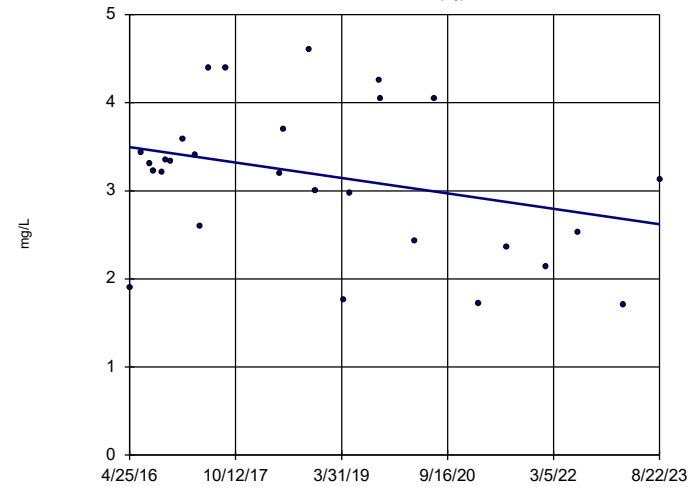


n = 21
 Slope = 1.176
 units per year.
 Mann-Kendall
 statistic = 150
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)

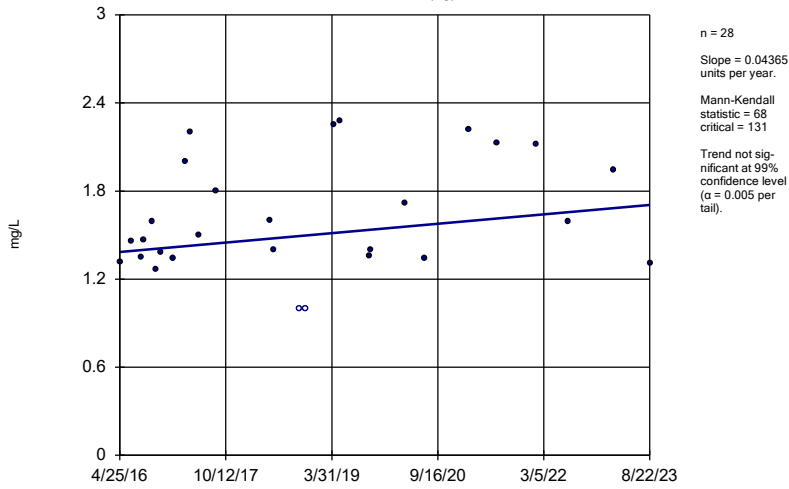


n = 28
 Slope = -0.1196
 units per year.
 Mann-Kendall
 statistic = -77
 critical = -131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

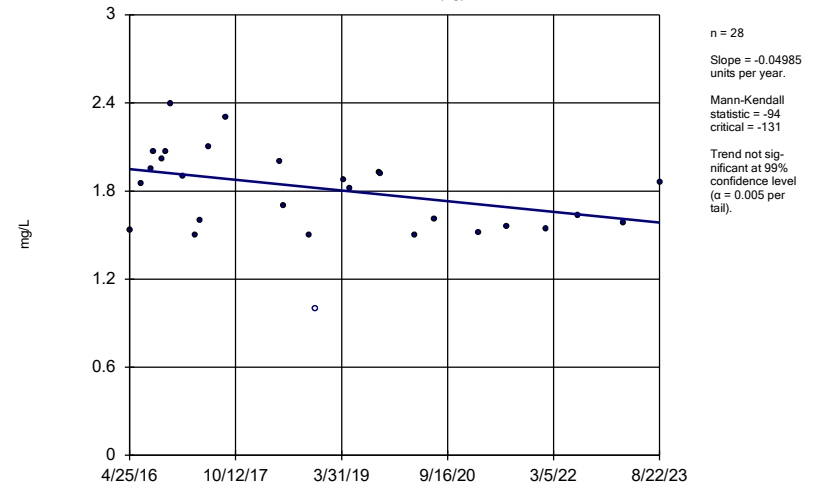
MW-3 (bg)



Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

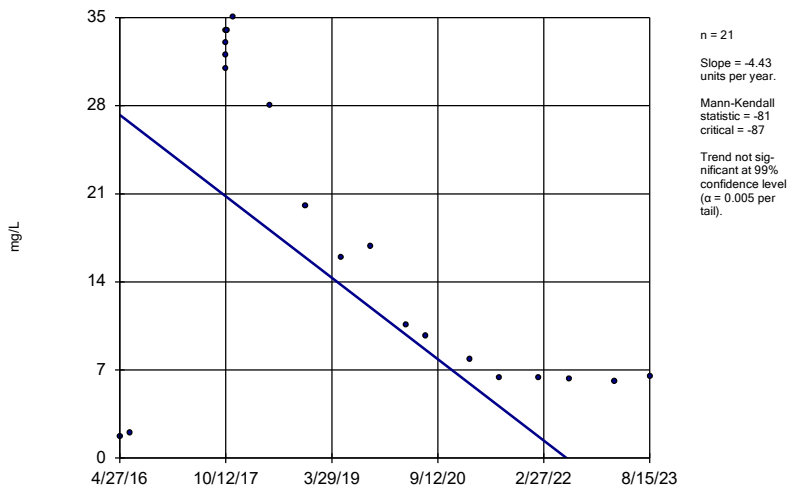
MW-4 (bg)



Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

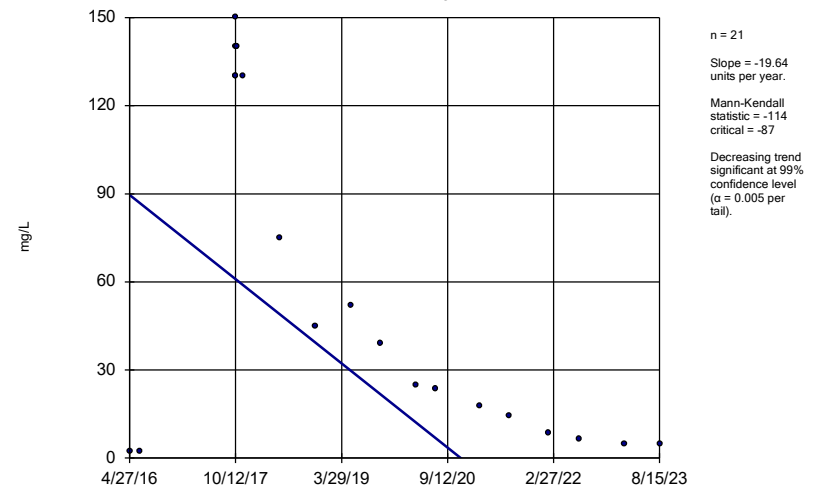
MW-7



Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

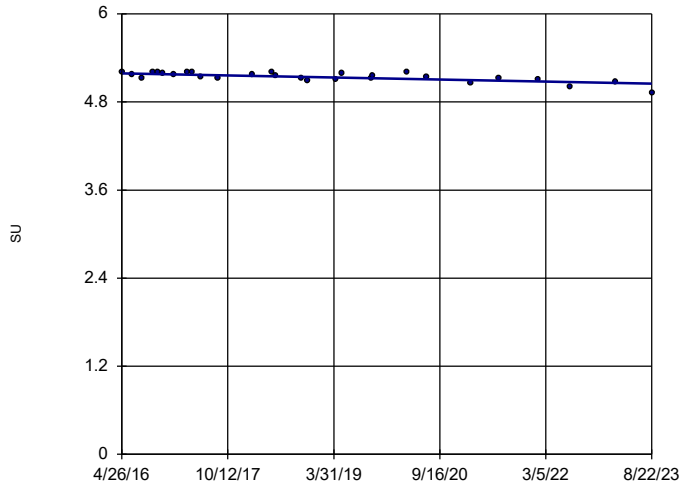
MW-8



Constituent: Chloride Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-1 (bg)

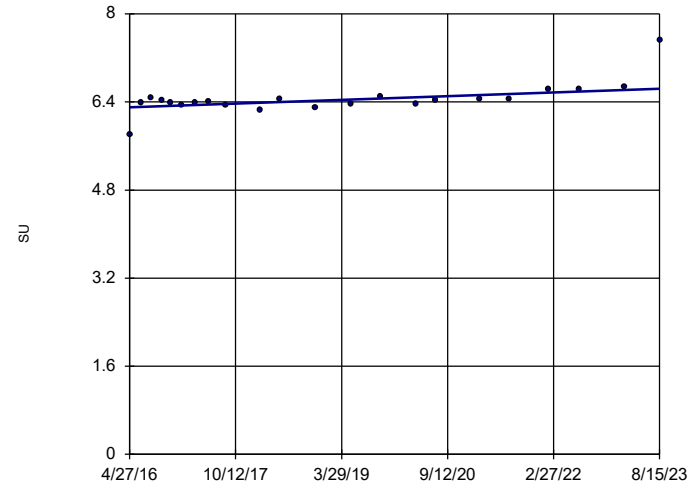


n = 28
 Slope = -0.01854
 units per year.
 Mann-Kendall
 statistic = -181
 critical = -131
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-10

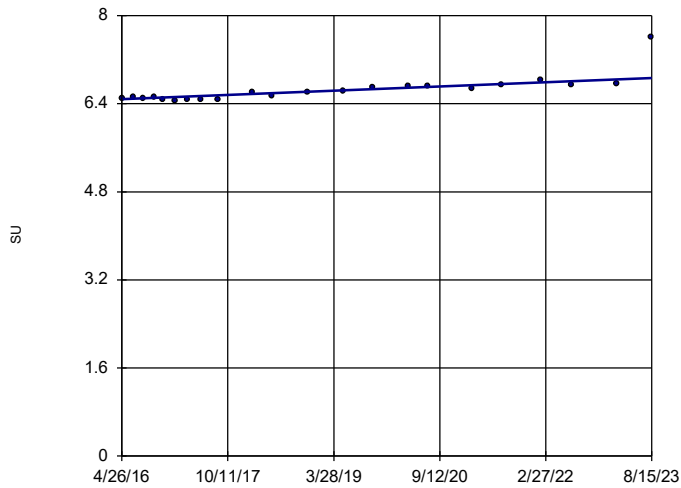


n = 22
 Slope = 0.04611
 units per year.
 Mann-Kendall
 statistic = 108
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-11

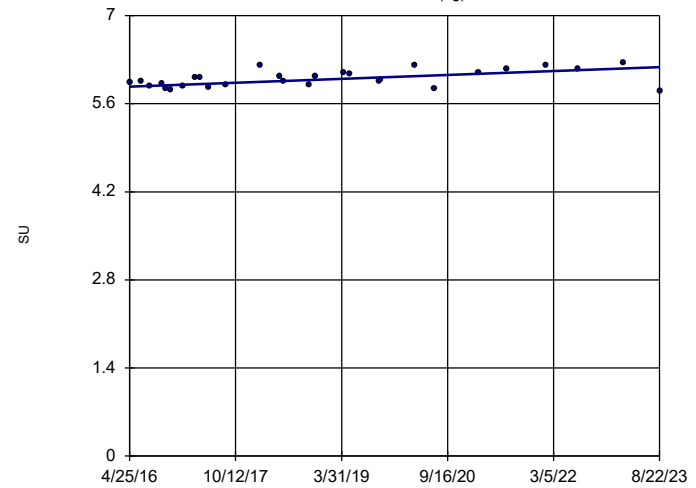


n = 22
 Slope = 0.05306
 units per year.
 Mann-Kendall
 statistic = 166
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-2 (bg)

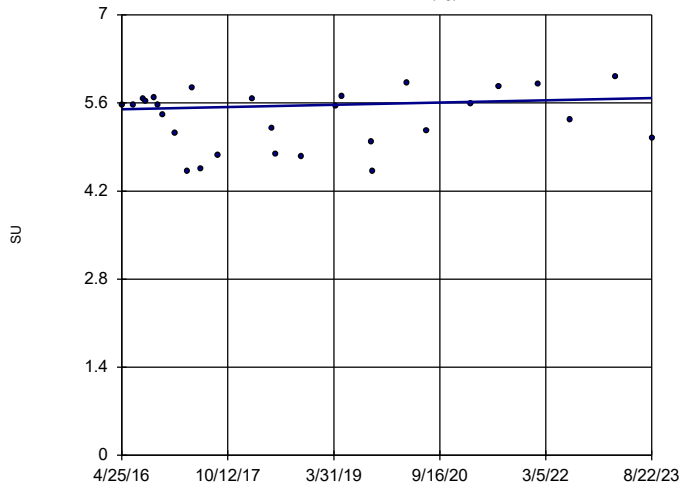


n = 28
 Slope = 0.04189
 units per year.
 Mann-Kendall
 statistic = 142
 critical = 131
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-3 (bg)

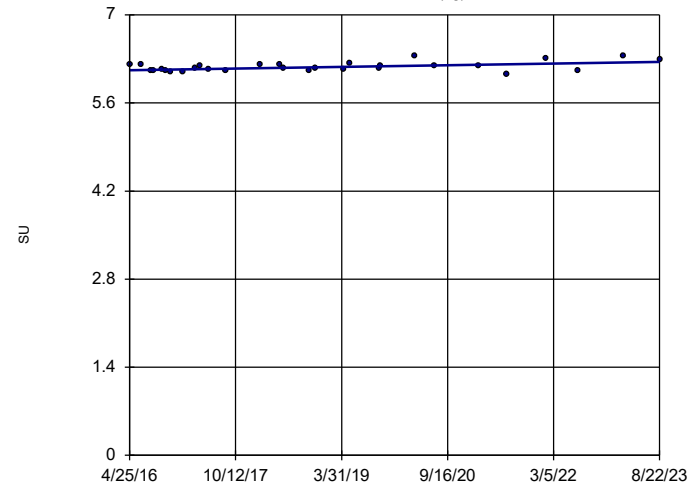


n = 28
 Slope = 0.02424
 units per year.
 Mann-Kendall
 statistic = 22
 critical = 131
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-4 (bg)

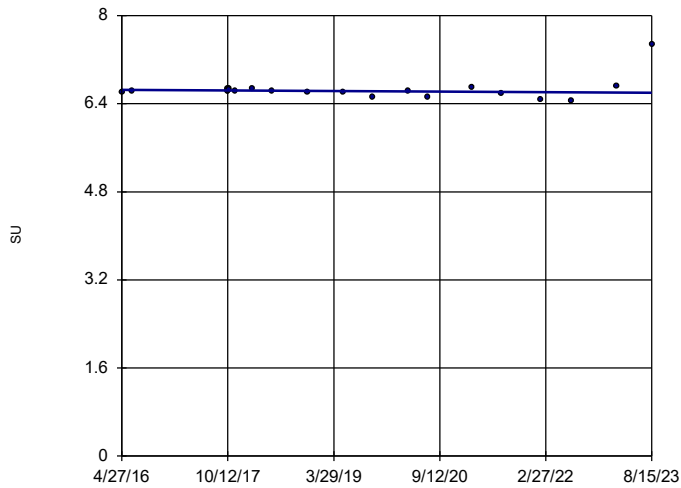


n = 29
 Slope = 0.01768
 units per year.
 Mann-Kendall
 statistic = 115
 critical = 139
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-7

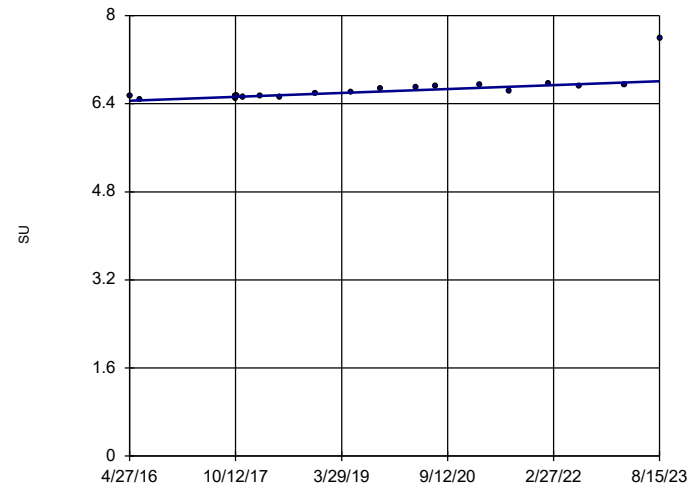


n = 22
 Slope = -0.006697
 units per year.
 Mann-Kendall
 statistic = -17
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

MW-8



n = 22
 Slope = 0.0485
 units per year.
 Mann-Kendall
 statistic = 177
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 10/2/2023 5:14 PM View: Appendix III - PL Exceedances
 Plant Gorgas Data: Gorgas BALF CCR

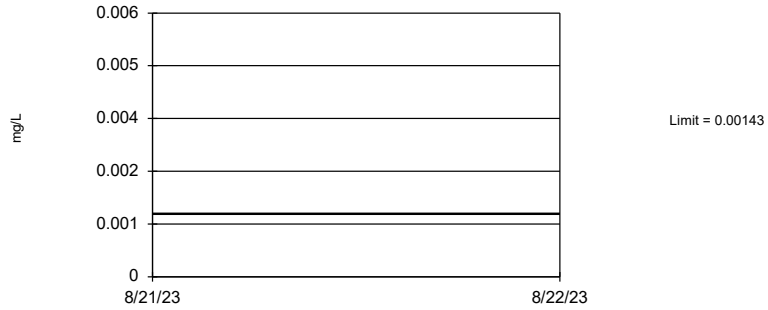
FIGURE I.

Upper Tolerance Limits Summary Table

Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR Printed 10/12/2023, 5:56 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg.N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.00143	n/a	n/a	n/a	112	94.64	n/a	n/a	0.003199	NP Inter
Arsenic (mg/L)	0.0048	n/a	n/a	n/a	112	72.32	n/a	n/a	0.003199	NP Inter
Barium (mg/L)	0.0165	n/a	n/a	n/a	112	0	n/a	n/a	0.003199	NP Inter
Beryllium (mg/L)	0.0121	n/a	n/a	n/a	110	84.55	n/a	n/a	0.003545	NP Inter
Cadmium (mg/L)	0.00885	n/a	n/a	n/a	111	41.44	n/a	n/a	0.003368	NP Inter
Chromium (mg/L)	0.0105	n/a	n/a	n/a	112	81.25	n/a	n/a	0.003199	NP Inter
Cobalt (mg/L)	0.529	n/a	n/a	n/a	110	25.45	n/a	n/a	0.003545	NP Inter
Combined Radium 226 + 228 (pCi/L)	1.49	n/a	n/a	n/a	108	0	n/a	n/a	0.003928	NP Inter
Fluoride (mg/L)	0.63	n/a	n/a	n/a	116	0	n/a	n/a	0.002606	NP Inter
Lead (mg/L)	0.00108	n/a	n/a	n/a	111	93.69	n/a	n/a	0.003368	NP Inter
Lithium (mg/L)	0.419	n/a	n/a	n/a	112	0	n/a	n/a	0.003199	NP Inter
Mercury (mg/L)	0.0005	n/a	n/a	n/a	112	100	n/a	n/a	0.003199	NP Inter
Molybdenum (mg/L)	0.01015	n/a	n/a	n/a	112	94.64	n/a	n/a	0.003199	NP Inter
Selenium (mg/L)	0.0209	n/a	n/a	n/a	112	55.36	n/a	n/a	0.003199	NP Inter
Thallium (mg/L)	0.000226	n/a	n/a	n/a	112	97.32	n/a	n/a	0.003199	NP Inter

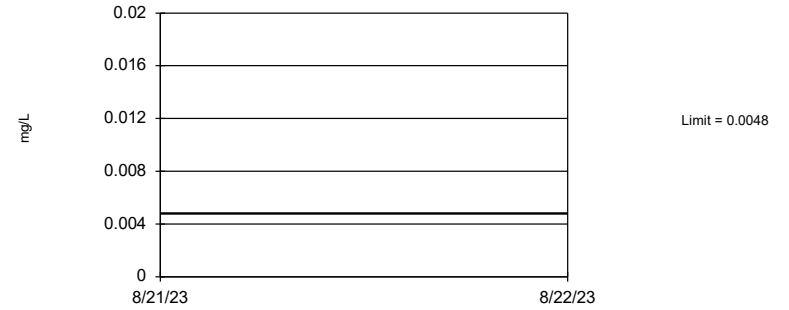
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 94.64% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Antimony Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

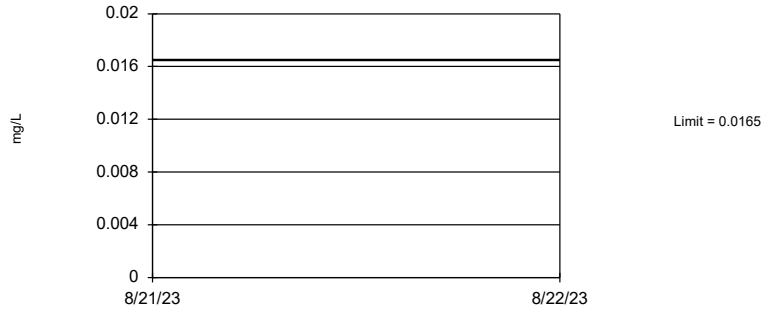
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 72.32% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Arsenic Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

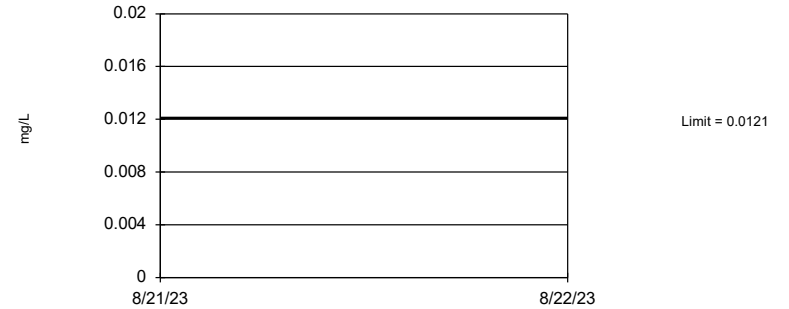
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Barium Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

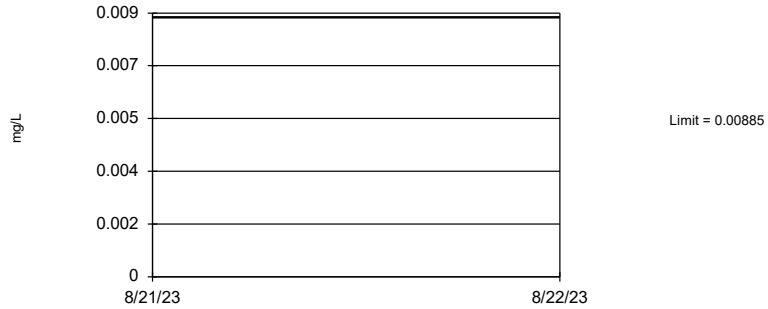
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 110 background values. 84.55% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003545.

Constituent: Beryllium Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

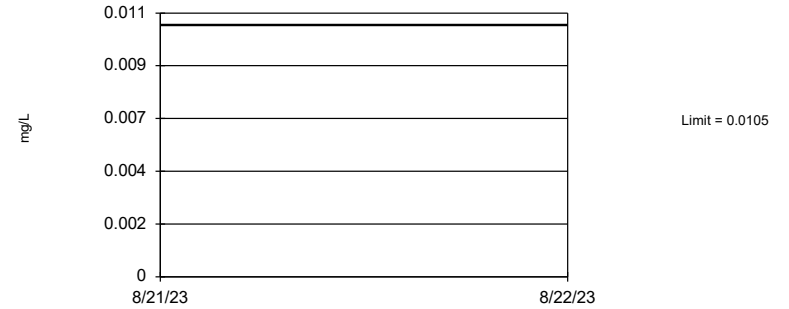
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 111 background values. 41.44% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003368.

Constituent: Cadmium Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 81.25% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Chromium Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

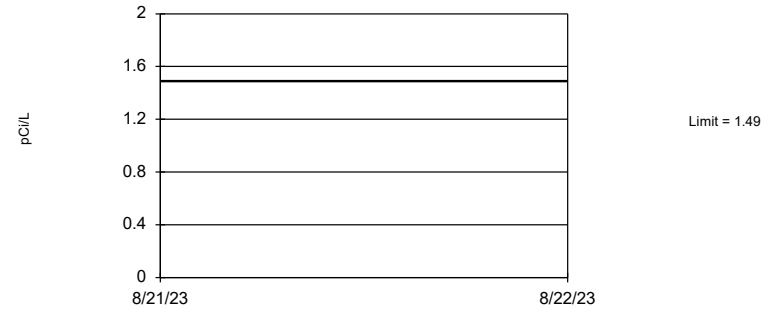
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 110 background values. 25.45% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003545.

Constituent: Cobalt Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

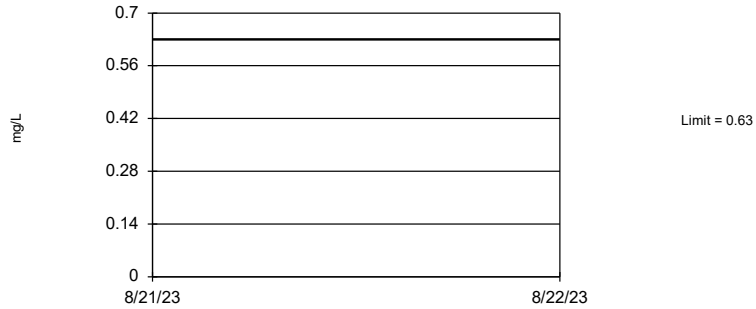
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 108 background values. 95.9% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003928.

Constituent: Combined Radium 226 + 228 Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

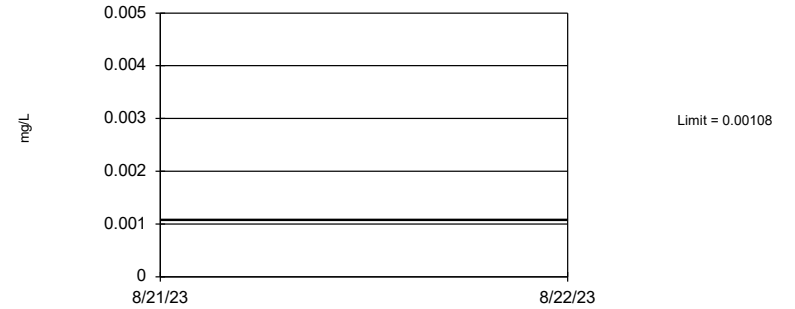
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 116 background values. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.002606.

Constituent: Fluoride Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

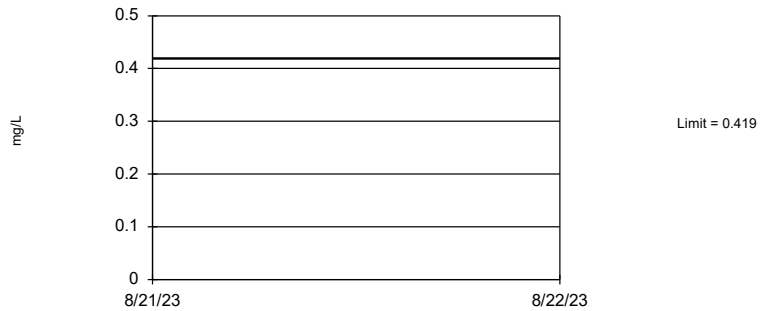
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 111 background values. 93.69% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003368.

Constituent: Lead Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

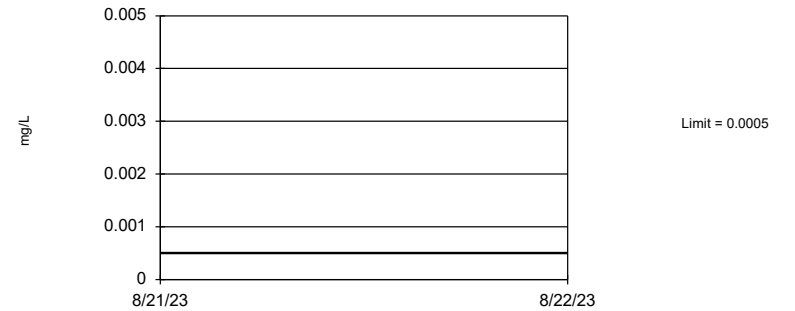
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Lithium Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

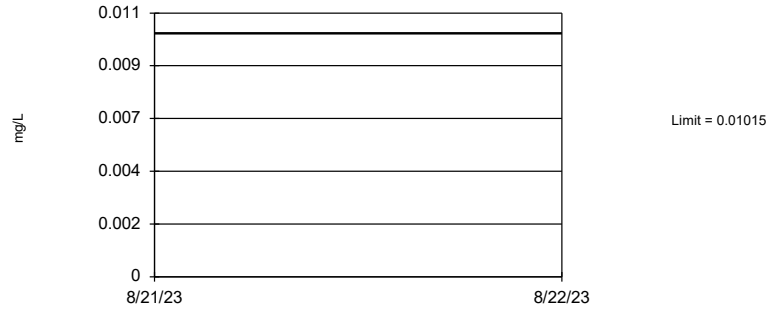
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Mercury Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

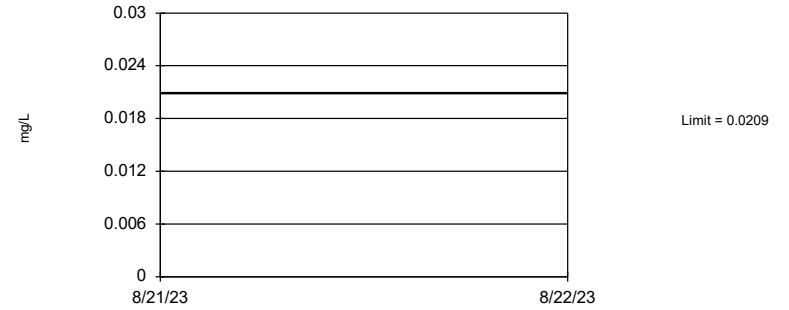
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 94.64% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Molybdenum Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

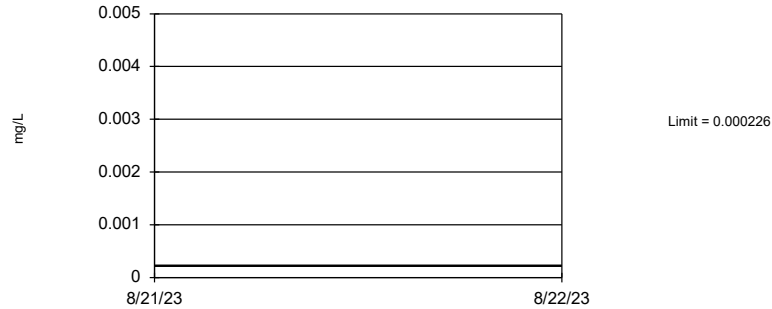
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 55.36% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Selenium Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 112 background values. 97.32% NDs. 95.9% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.003199.

Constituent: Thallium Analysis Run 10/12/2023 5:56 PM View: Appendix IV - UTLs
Plant Gorgas Client: Southern Company Data: Gorgas BALF CCR

FIGURE J.

GORGAS BALF GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.0048	0.01
Barium	mg/L	0.0165	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00885	0.00885
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	0.529	0.529
Combined Radium-226/228	pCi/L	1.49	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00108	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.0209	0.05
Thallium	mg/L	0.000226	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 2023.

FIGURE K.

Appendix IV Confidence Intervals Summary Table - Significant Result

Plant Gorgas Data: Gorgas BALF CCR Printed 10/12/2023, 4:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u> <u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-12	0.07059	0.05733	0.01	Yes 8	0.006254	0	None	No	0.01	Param.

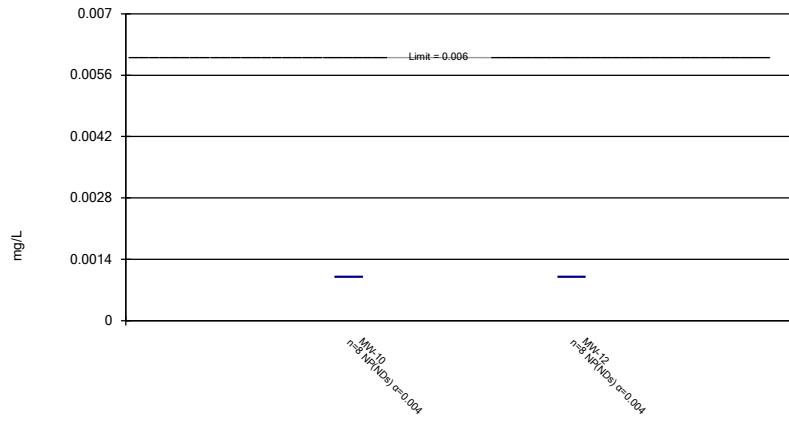
Appendix IV Confidence Intervals Summary Table - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/12/2023, 4:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MW-10	0.001015	0.001015	0.006	No	8	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	MW-12	0.001015	0.001015	0.006	No	8	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-10	0.001503	0.0005188	0.01	No	8	0.0004644	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-11	0.005	0.000825	0.01	No	8	0.001917	25	None	No	0.004	NP (normality)
Arsenic (mg/L)	MW-12	0.07059	0.05733	0.01	Yes	8	0.006254	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-7	0.001647	0.001415	0.01	No	8	0.0001096	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001724	0.001013	0.01	No	8	0.0003578	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-10	0.0245	0.0195	2	No	8	0.00165	0	None	No	0.004	NP (normality)
Barium (mg/L)	MW-11	0.01605	0.01363	2	No	8	0.001141	0	None	No	0.01	Param.
Barium (mg/L)	MW-12	0.01294	0.01064	2	No	8	0.001084	0	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.01457	0.01288	2	No	8	0.0007942	0	None	No	0.01	Param.
Barium (mg/L)	MW-8	0.01464	0.01334	2	No	8	0.0006151	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-10	0.001261	0.0005864	0.004	No	8	0.0002583	37.5	Kapla...	No	0.01	Param.
Cadmium (mg/L)	MW-10	0.000203	0.00008	0.00885	No	8	0.00005195	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-12	0.000203	0.000087	0.00885	No	8	0.00004101	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-10	0.001015	0.00021	0.1	No	8	0.000404	50	None	No	0.004	NP (normality)
Chromium (mg/L)	MW-11	0.001015	0.000258	0.1	No	8	0.000378	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-12	0.001015	0.00028	0.1	No	8	0.0003571	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-7	0.001015	0.00026	0.1	No	8	0.000336	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	MW-8	0.001015	0.000211	0.1	No	8	0.0003633	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-10	0.01951	0.002226	0.529	No	8	0.008154	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-11	0.005	0.00025	0.529	No	8	0.002083	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	MW-12	0.05389	0.04616	0.529	No	8	0.003651	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.006124	0.003524	0.529	No	8	0.001227	0	None	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.008031	0.006524	0.529	No	8	0.0007109	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-10	0.7764	0.09861	5	No	8	0.3197	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-11	1.025	0.6428	5	No	8	0.1884	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-12	1.445	0.8703	5	No	8	0.271	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-7	0.7246	0.3137	5	No	8	0.1938	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-8	1.379	0.2685	5	No	8	0.6593	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	MW-10	0.2476	0.1173	4	No	8	0.06146	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-11	0.1419	0.09626	4	No	8	0.02155	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-12	0.2567	0.1503	4	No	8	0.05023	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-7	0.2432	0.1526	4	No	8	0.04273	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-8	0.2296	0.1694	4	No	8	0.02943	0	None	sqrt(x)	0.01	Param.
Lead (mg/L)	MW-10	0.000203	0.00008	0.015	No	8	0.00004423	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	MW-11	0.000203	0.000203	0.015	No	8	0	100	None	No	0.004	NP (NDs)
Lead (mg/L)	MW-12	0.005	0.000178	0.015	No	8	0.002191	25	None	No	0.004	NP (normality)
Lead (mg/L)	MW-8	0.000203	0.000088	0.015	No	8	0.00005577	37.5	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-10	0.2346	0.1491	0.419	No	8	0.04033	0	None	No	0.01	Param.
Lithium (mg/L)	MW-11	0.2897	0.2071	0.419	No	8	0.03894	0	None	No	0.01	Param.
Lithium (mg/L)	MW-12	0.0851	0.06065	0.419	No	8	0.01154	0	None	No	0.01	Param.
Lithium (mg/L)	MW-7	0.131	0.0907	0.419	No	8	0.0142	0	None	No	0.004	NP (normality)
Lithium (mg/L)	MW-8	0.1579	0.1198	0.419	No	8	0.01797	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-10	0.01015	0.00008	0.1	No	8	0.004654	75	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	MW-11	0.01015	0.0013	0.1	No	8	0.004481	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-12	0.01015	0.000088	0.1	No	8	0.005152	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-7	0.01015	0.000846	0.1	No	8	0.004764	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	MW-8	0.0129	0.00031	0.1	No	8	0.005687	37.5	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-10	0.00273	0.000611	0.05	No	8	0.0007271	50	None	No	0.004	NP (normality)
Selenium (mg/L)	MW-12	0.001015	0.00051	0.05	No	8	0.0001785	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	MW-7	0.001015	0.000677	0.05	No	8	0.0001195	87.5	None	No	0.004	NP (NDs)
Thallium (mg/L)	MW-12	0.000203	0.000097	0.002	No	8	0.00005193	62.5	None	No	0.004	NP (NDs)

Non-Parametric Confidence Interval

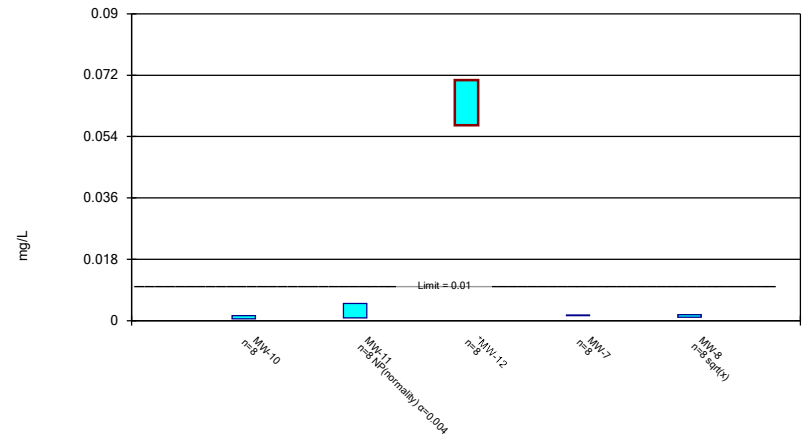
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

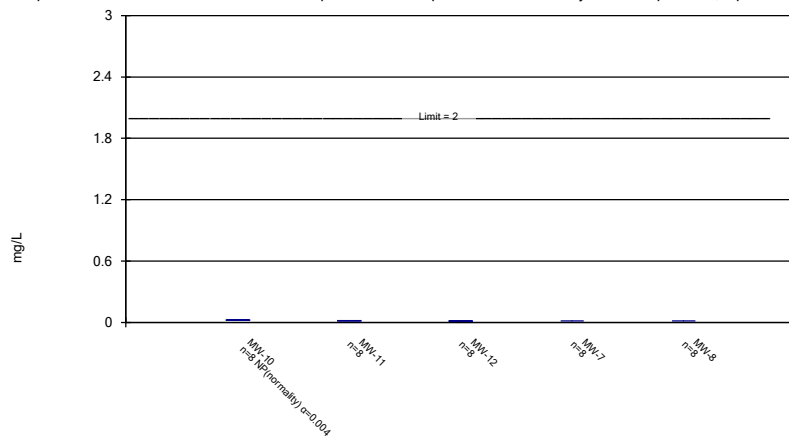
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

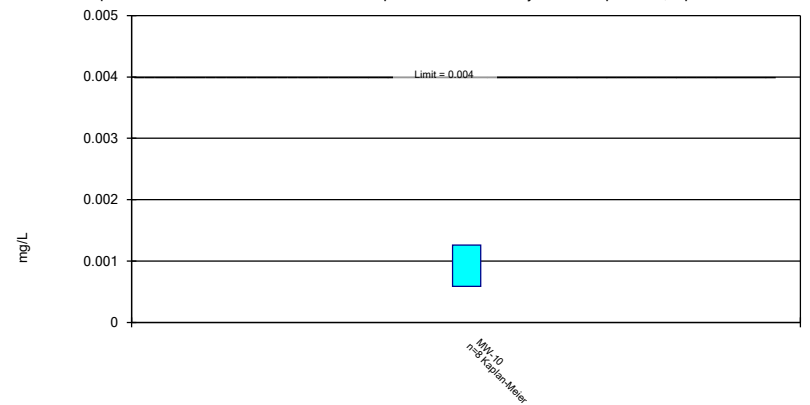
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Parametric Confidence Interval

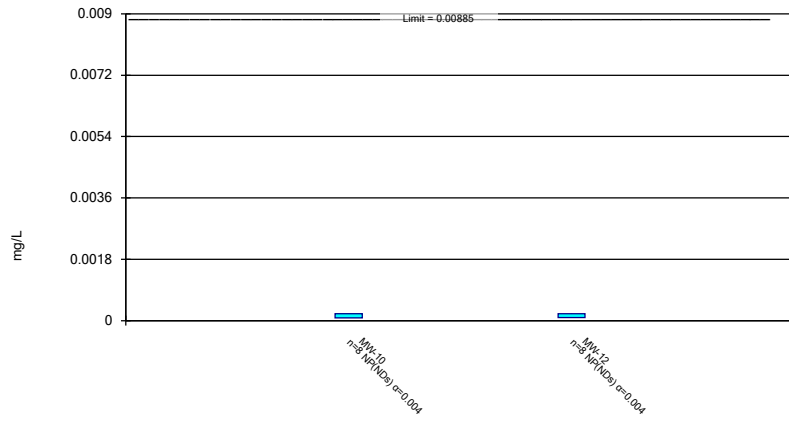
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

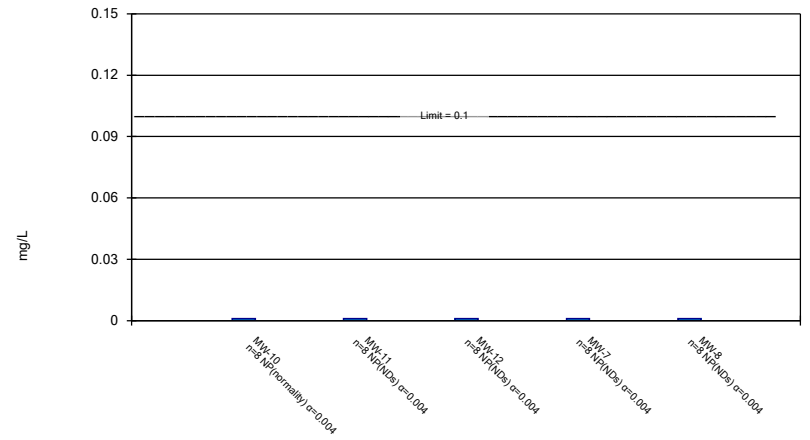
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

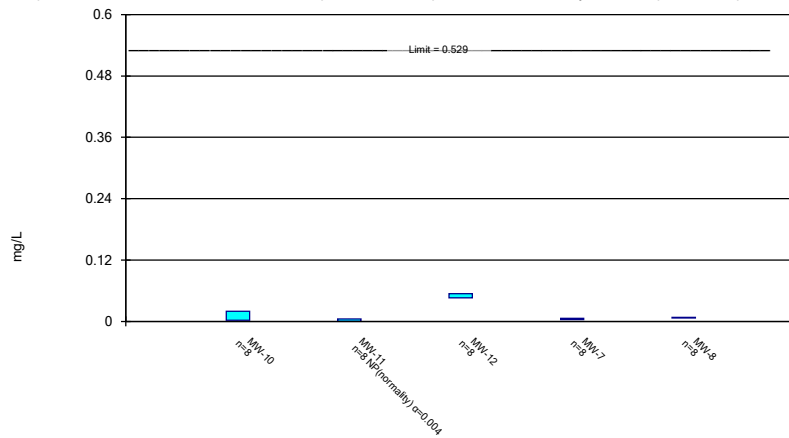
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

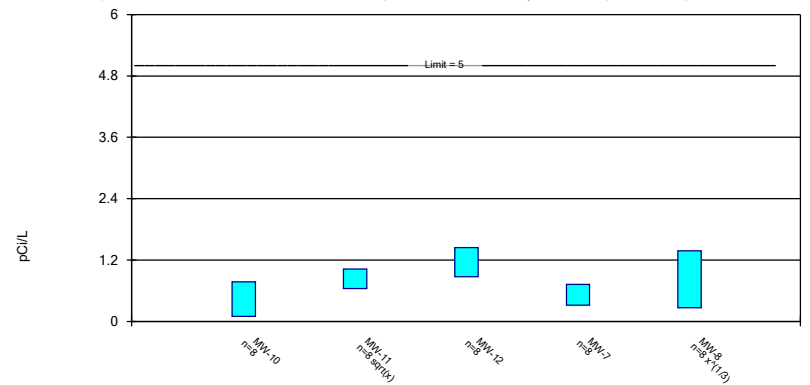
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Parametric Confidence Interval

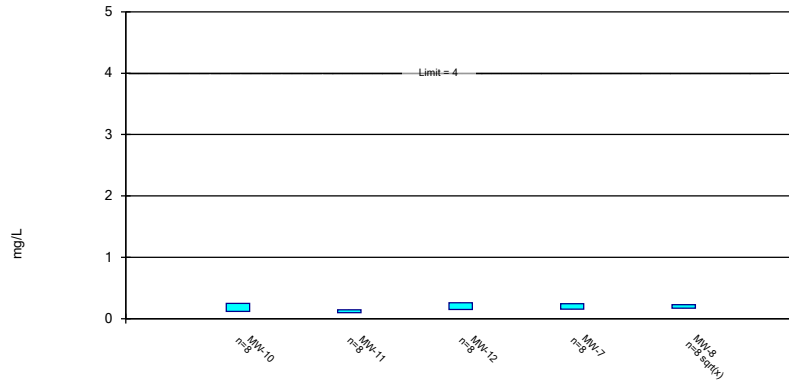
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confide
Plant Gorgas Data: Gorgas BALF CCR

Parametric Confidence Interval

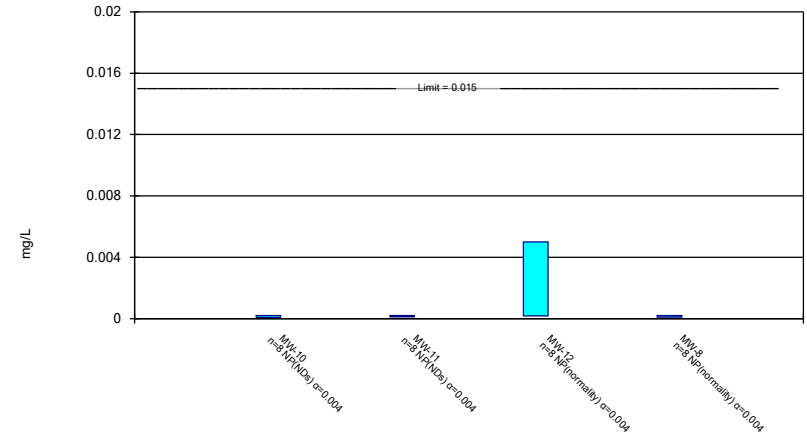
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

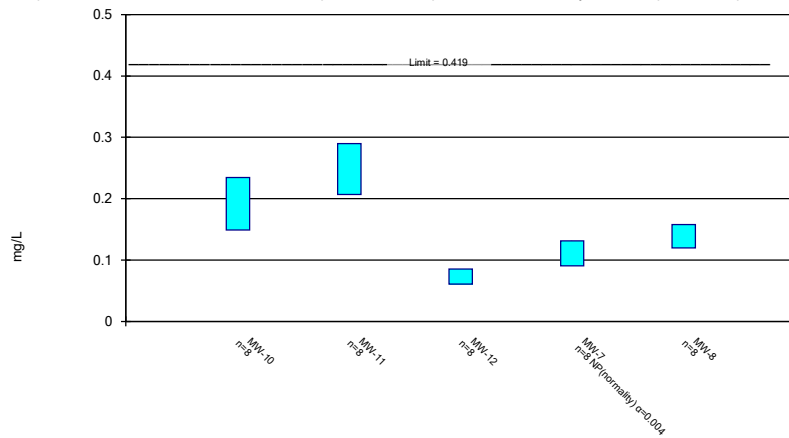
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Parametric and Non-Parametric (NP) Confidence Interval

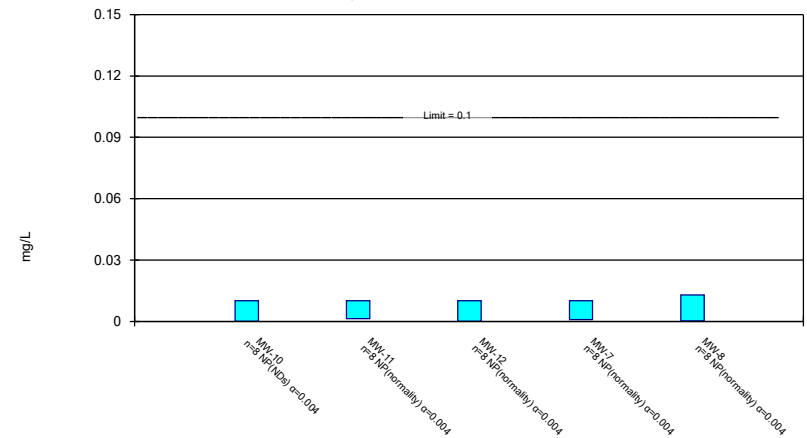
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

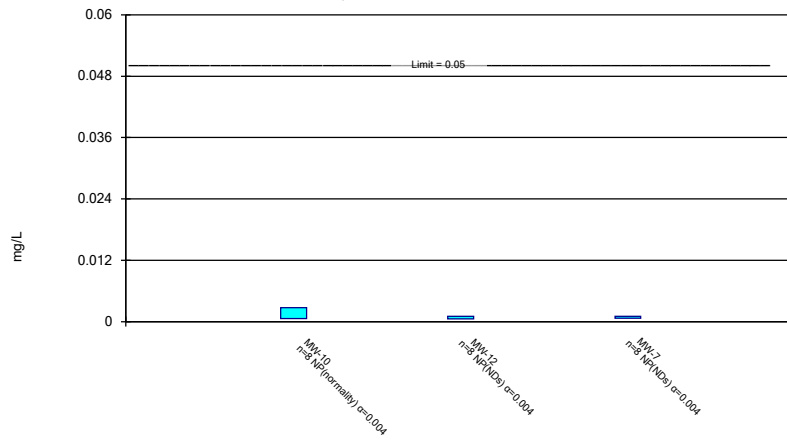
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

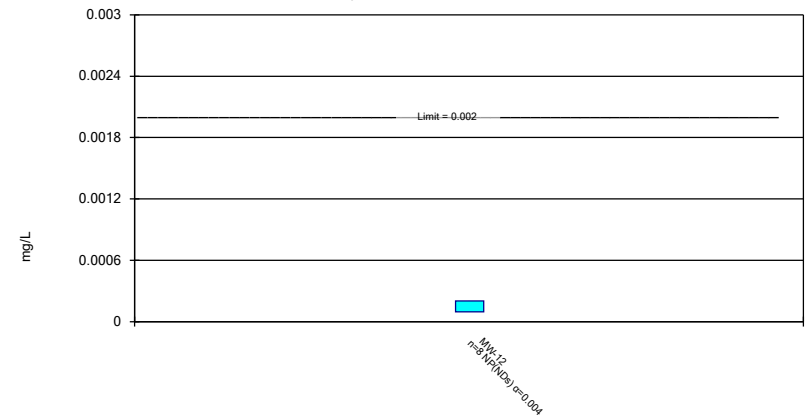
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 10/12/2023 4:26 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-12
4/6/2020		<0.001015
4/8/2020	<0.001015	
7/13/2020		<0.001015
7/14/2020	<0.001015	
2/23/2021	<0.001015	
2/24/2021		<0.001015
7/20/2021	<0.001015	<0.001015
2/1/2022	<0.001015	<0.001015
7/5/2022		<0.001015
7/6/2022	<0.001015	
2/22/2023	<0.001015	<0.001015
8/15/2023	<0.001015	
8/16/2023		<0.001015
Mean	0.001015	0.001015
Std. Dev.	0	0
Upper Lim.	0.001015	0.001015
Lower Lim.	0.001015	0.001015

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
 Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		<0.005	0.0597		
4/8/2020	0.0013 (J)			0.00136 (J)	0.00102 (J)
7/13/2020		<0.005	0.0613		
7/14/2020	0.00164 (J)			0.00147 (J)	
7/15/2020					0.00212 (J)
2/23/2021	0.0016			0.00141	0.00117
2/24/2021		0.000834	0.0516		
7/20/2021	0.00102		0.0668	0.00164	0.00111
7/21/2021		0.0009			
1/31/2022				0.00156	
2/1/2022	0.00073	0.00085	0.0679		0.00131
7/5/2022		0.000881	0.0679		
7/6/2022	0.000348			0.00164	0.00136
2/21/2023		0.000859		0.00153	0.00119
2/22/2023	0.000692		0.0651		
8/15/2023	0.000759	0.000825		0.00164	0.00163
8/16/2023			0.0714		
Mean	0.001011	0.001894	0.06396	0.001531	0.001364
Std. Dev.	0.0004644	0.001917	0.006254	0.0001096	0.0003578
Upper Lim.	0.001503	0.005	0.07059	0.001647	0.001724
Lower Lim.	0.0005188	0.000825	0.05733	0.001415	0.001013

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		0.0147	0.0128		
4/8/2020	0.0201			0.0127	0.0137
7/13/2020		0.0149	0.0124		
7/14/2020	0.0245			0.0148	
7/15/2020					0.0143
2/23/2021	0.0201			0.014	0.014
2/24/2021		0.015	0.0123		
7/20/2021	0.0208		0.012	0.0142	0.0141
7/21/2021		0.0159			
1/31/2022				0.0126	
2/1/2022	0.0198	0.0132	0.0102		0.0135
7/5/2022		0.0148	0.011		
7/6/2022	0.0209			0.0142	0.0146
2/21/2023		0.0167		0.0141	0.0148
2/22/2023	0.0222		0.0131		
8/15/2023	0.0195	0.0135		0.0132	0.0129
8/16/2023			0.0105		
Mean	0.02099	0.01484	0.01179	0.01373	0.01399
Std. Dev.	0.00165	0.001141	0.001084	0.0007942	0.0006151
Upper Lim.	0.0245	0.01605	0.01294	0.01457	0.01464
Lower Lim.	0.0195	0.01363	0.01064	0.01288	0.01334

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-10
4/8/2020	0.00114 (J)
7/14/2020	0.00135 (J)
2/23/2021	0.00128
7/20/2021	0.00095 (J)
2/1/2022	<0.001015
7/6/2022	<0.001015
2/22/2023	0.000498 (J)
8/15/2023	<0.001015
Mean	0.001033
Std. Dev.	0.0002583
Upper Lim.	0.001261
Lower Lim.	0.0005864

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-12
4/6/2020		<0.000203
4/8/2020	<0.000203	
7/13/2020		<0.000203
7/14/2020	<0.000203	
2/23/2021	0.000148 (J)	
2/24/2021		<0.000203
7/20/2021	8E-05 (J)	<0.000203
2/1/2022	0.0001 (J)	<0.000203
7/5/2022		<0.000203
7/6/2022	<0.000203	
2/22/2023	<0.000203	<0.000203
8/15/2023	<0.000203	
8/16/2023		8.7E-05 (J)
Mean	0.0001679	0.0001885
Std. Dev.	5.195E-05	4.101E-05
Upper Lim.	0.000203	0.000203
Lower Lim.	8E-05	8.7E-05

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
 Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		<0.001015	<0.001015		
4/8/2020	<0.001015			<0.001015	<0.001015
7/13/2020		<0.001015	<0.001015		
7/14/2020	<0.001015			<0.001015	
7/15/2020					<0.001015
2/23/2021	<0.001015			<0.001015	<0.001015
2/24/2021		<0.001015	<0.001015		
7/20/2021	0.00021 (J)		0.00028 (J)	<0.001015	<0.001015
7/21/2021		<0.001015			
1/31/2022				0.00032 (J)	
2/1/2022	0.00029 (J)	0.00033 (J)	0.00033 (J)		0.00025 (J)
7/5/2022		0.000269 (J)	<0.001015		
7/6/2022	<0.001015			<0.001015	<0.001015
2/21/2023		<0.001015		<0.001015	<0.001015
2/22/2023	0.000277 (J)		<0.001015		
8/15/2023	0.000265 (J)	0.000258 (J)		0.00026 (J)	0.000211 (J)
8/16/2023			0.00037 (J)		
Mean	0.0006378	0.0007415	0.0007569	0.0008338	0.0008189
Std. Dev.	0.000404	0.000378	0.0003571	0.000336	0.0003633
Upper Lim.	0.001015	0.001015	0.001015	0.001015	0.001015
Lower Lim.	0.00021	0.000258	0.00028	0.00026	0.000211

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		<0.005	0.0537		
4/8/2020	0.0176			0.00394 (J)	0.00762
7/13/2020		<0.005	0.0515		
7/14/2020	0.0232			0.00653	
7/15/2020					0.00821
2/23/2021	0.0167			0.00294	0.00796
2/24/2021		0.00026	0.0442		
7/20/2021	0.0131		0.046	0.00561	0.00714
7/21/2021		0.00025			
1/31/2022				0.00546	
2/1/2022	0.00978	0.00046	0.0474		0.0075
7/5/2022		0.000443	0.0512		
7/6/2022	0.00285			0.0059	0.00701
2/21/2023		0.000889		0.0043	0.00682
2/22/2023	0.00105		0.0535		
8/15/2023	0.00267	0.000894		0.00391	0.00596
8/16/2023			0.0527		
Mean	0.01087	0.001649	0.05003	0.004824	0.007278
Std. Dev.	0.008154	0.002083	0.003651	0.001227	0.0007109
Upper Lim.	0.01951	0.005	0.05389	0.006124	0.008031
Lower Lim.	0.002226	0.00025	0.04616	0.003524	0.006524

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		0.678	1.22		
4/8/2020	0.205 (U)			0.237 (U)	1.38 (U)
7/13/2020		0.665	0.787		
7/14/2020	0.314 (U)			0.434	
7/15/2020					0.398 (U)
2/23/2021	0.329 (U)			0.696 (U)	0.685 (U)
2/24/2021		0.869 (U)	1.24		
7/20/2021	0.344 (U)		1.15 (U)	0.356 (U)	0.42 (U)
7/21/2021		0.951 (U)			
1/31/2022				0.473 (U)	
2/1/2022	0.012 (U)	0.883 (U)	1.13 (U)		0.643 (U)
7/5/2022		0.697 (U)	1.72		
7/6/2022	0.501 (U)			0.716 (U)	0.415 (U)
2/21/2023		0.699 (U)		0.789 (U)	2.19
2/22/2023	0.804 (U)		1.05		
8/15/2023	0.991 (U)	1.21 (U)		0.452 (U)	0.269 (U)
8/16/2023			0.964 (U)		
Mean	0.4375	0.8315	1.158	0.5191	0.8
Std. Dev.	0.3197	0.1884	0.271	0.1938	0.6593
Upper Lim.	0.7764	1.025	1.445	0.7246	1.379
Lower Lim.	0.09861	0.6428	0.8703	0.3137	0.2685

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		0.118	0.254		
4/8/2020	0.243			0.153	0.192
7/13/2020		0.108	0.161		
7/14/2020	0.224			0.193	
7/15/2020					0.196
2/23/2021	0.202			0.2	0.208
2/24/2021		0.107	0.172		
7/20/2021	0.268		0.219	0.286	0.262
7/21/2021		0.16			
1/31/2022				0.173	
2/1/2022	0.157	0.0848 (J)	0.174		0.177
7/5/2022		0.124 (J)	0.275		
7/6/2022	0.145			0.208	0.173
2/21/2023		0.129		0.216	0.212
2/22/2023	0.132		0.239		
8/15/2023	0.0889 (J)	0.122 (J)		0.154	0.174
8/16/2023			0.134		
Mean	0.1825	0.1191	0.2035	0.1979	0.1993
Std. Dev.	0.06146	0.02155	0.05023	0.04273	0.02943
Upper Lim.	0.2476	0.1419	0.2567	0.2432	0.2296
Lower Lim.	0.1173	0.09626	0.1503	0.1526	0.1694

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
 Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-8
4/6/2020		<0.000203	<0.005	
4/8/2020	<0.000203			<0.000203
7/13/2020		<0.000203	<0.005	
7/14/2020	<0.000203			
7/15/2020				<0.000203
2/23/2021	<0.000203			<0.000203
2/24/2021		<0.000203	0.000178 (J)	
7/20/2021	8E-05 (J)		0.00023	9E-05 (J)
7/21/2021		<0.000203		
2/1/2022	<0.000203	<0.000203	0.0003	9E-05 (J)
7/5/2022		<0.000203	0.000185 (J)	
7/6/2022	<0.000203			0.000109 (J)
2/21/2023		<0.000203		8.8E-05 (J)
2/22/2023	0.000155 (J)		0.000214	
8/15/2023	0.000201 (J)	<0.000203		0.000178 (J)
8/16/2023			0.000531	
Mean	0.0001814	0.000203	0.001455	0.0001455
Std. Dev.	4.423E-05	0	0.002191	5.577E-05
Upper Lim.	0.000203	0.000203	0.005	0.000203
Lower Lim.	8E-05	0.000203	0.000178	8.8E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		0.282	0.0786		
4/8/2020	0.23			0.117	0.149
7/13/2020		0.277	0.0784		
7/14/2020	0.255			0.103	
7/15/2020					0.152
2/23/2021	0.223			0.131	0.166
2/24/2021		0.3	0.0949		
7/20/2021	0.196		0.0769	0.096	0.151
7/21/2021		0.271			
1/31/2022				0.0907	
2/1/2022	0.157	0.223	0.0656		0.124
7/5/2022		0.233	0.0659		
7/6/2022	0.172			0.0926	0.132
2/21/2023		0.204		0.0932	0.12
2/22/2023	0.149		0.0615		
8/15/2023	0.153	0.197		0.0977	0.117
8/16/2023			0.0612		
Mean	0.1919	0.2484	0.07288	0.1027	0.1389
Std. Dev.	0.04033	0.03894	0.01154	0.0142	0.01797
Upper Lim.	0.2346	0.2897	0.0851	0.131	0.1579
Lower Lim.	0.1491	0.2071	0.06065	0.0907	0.1198

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
 Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-11	MW-12	MW-7	MW-8
4/6/2020		<0.01015	<0.01015		
4/8/2020	<0.01015			<0.01015	<0.01015
7/13/2020		<0.01015	<0.01015		
7/14/2020	<0.01015			<0.01015	
7/15/2020					<0.01015
2/23/2021	<0.01015			0.00107	0.0129
2/24/2021		0.00148	8.8E-05 (J)		
7/20/2021	8E-05 (J)		0.00017 (J)	0.00086	0.00033
7/21/2021		0.0013			
1/31/2022				0.00093	
2/1/2022	<0.01015	0.00181	0.00019 (J)		0.00031
7/5/2022		0.00151	0.000402		
7/6/2022	<0.01015			0.000846	0.000351
2/21/2023		0.00138		0.00103	0.000338
2/22/2023	0.000111 (J)		0.000131 (J)		
8/15/2023	<0.01015	<0.01015		<0.01015	<0.01015
8/16/2023			<0.01015		
Mean	0.007636	0.004741	0.003929	0.004398	0.005585
Std. Dev.	0.004654	0.004481	0.005152	0.004764	0.005687
Upper Lim.	0.01015	0.01015	0.01015	0.01015	0.0129
Lower Lim.	8E-05	0.0013	8.8E-05	0.000846	0.00031

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-10	MW-12	MW-7
4/6/2020		<0.001015	
4/8/2020	<0.001015		<0.001015
7/13/2020		<0.001015	
7/14/2020	0.00273 (J)		<0.001015
2/23/2021	0.00217		<0.001015
2/24/2021		<0.001015	
7/20/2021	0.00098 (J)	<0.001015	<0.001015
1/31/2022			<0.001015
2/1/2022	<0.001015	0.00051 (J)	
7/5/2022		<0.001015	
7/6/2022	<0.001015		0.000677 (J)
2/21/2023			<0.001015
2/22/2023	0.000611 (J)	<0.001015	
8/15/2023	<0.001015		<0.001015
8/16/2023		<0.001015	
Mean	0.001319	0.0009519	0.0009728
Std. Dev.	0.0007271	0.0001785	0.0001195
Upper Lim.	0.00273	0.001015	0.001015
Lower Lim.	0.000611	0.00051	0.000677

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 10/12/2023 4:28 PM View: Appendix IV - Confidence Intervals
Plant Gorgas Data: Gorgas BALF CCR

	MW-12
4/6/2020	<0.000203
7/13/2020	<0.000203
2/24/2021	<0.000203
7/20/2021	<0.000203
2/1/2022	0.0001 (J)
7/5/2022	<0.000203
2/22/2023	0.000112 (J)
8/16/2023	9.7E-05 (J)
Mean	0.0001655
Std. Dev.	5.193E-05
Upper Lim.	0.000203
Lower Lim.	9.7E-05

FIGURE L.

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:37 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-1 (bg)	0	-143	-131	Yes	28	78.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-12	0.004298	143	87	Yes	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-3 (bg)	-0.0002048	-173	-131	Yes	28	53.57	n/a	n/a	0.01	NP

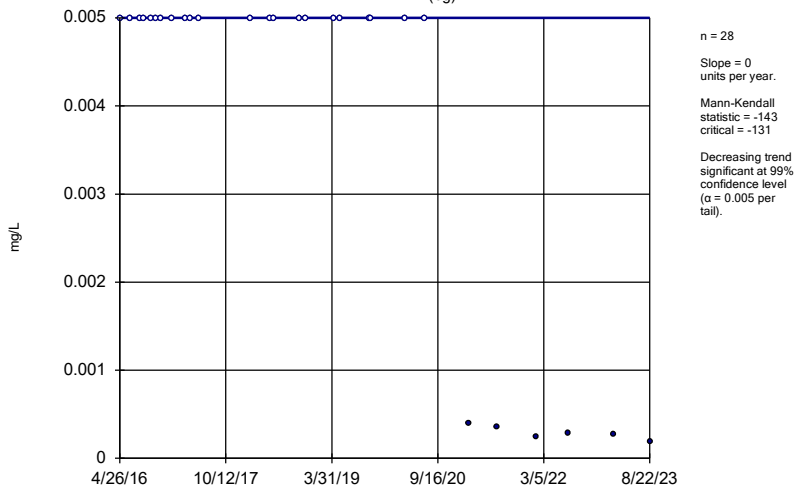
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant Gorgas Data: Gorgas BALF CCR Printed 10/2/2023, 5:37 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MW-1 (bg)	0	-143	-131	Yes	28	78.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-12	0.004298	143	87	Yes	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-2 (bg)	0	-120	-131	No	28	75	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-3 (bg)	-0.0002048	-173	-131	Yes	28	53.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	MW-4 (bg)	0	-107	-131	No	28	82.14	n/a	n/a	0.01	NP

Sen's Slope Estimator

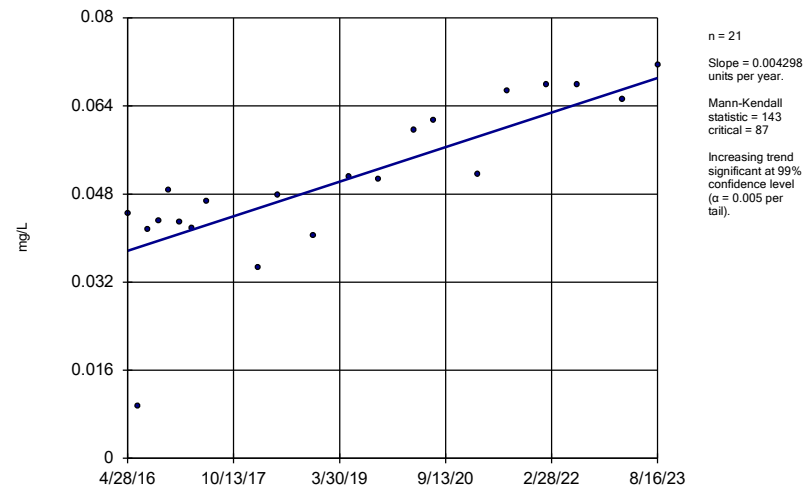
MW-1 (bg)



Constituent: Arsenic Analysis Run 10/2/2023 5:36 PM View: Appendix IV - Trend Test
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

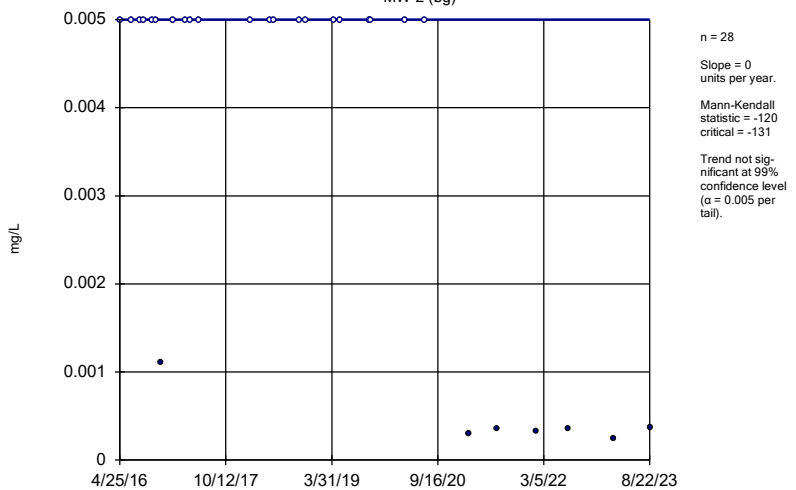
MW-12



Constituent: Arsenic Analysis Run 10/2/2023 5:36 PM View: Appendix IV - Trend Test
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator

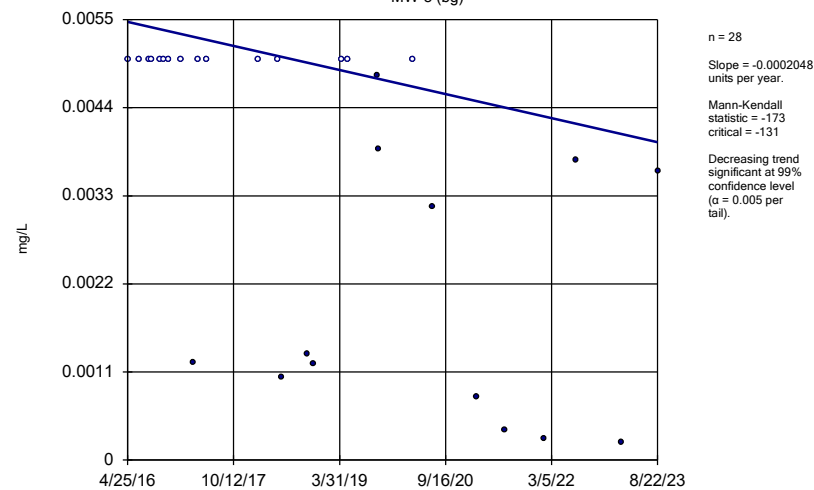
MW-2 (bg)



Constituent: Arsenic Analysis Run 10/2/2023 5:36 PM View: Appendix IV - Trend Test
Plant Gorgas Data: Gorgas BALF CCR

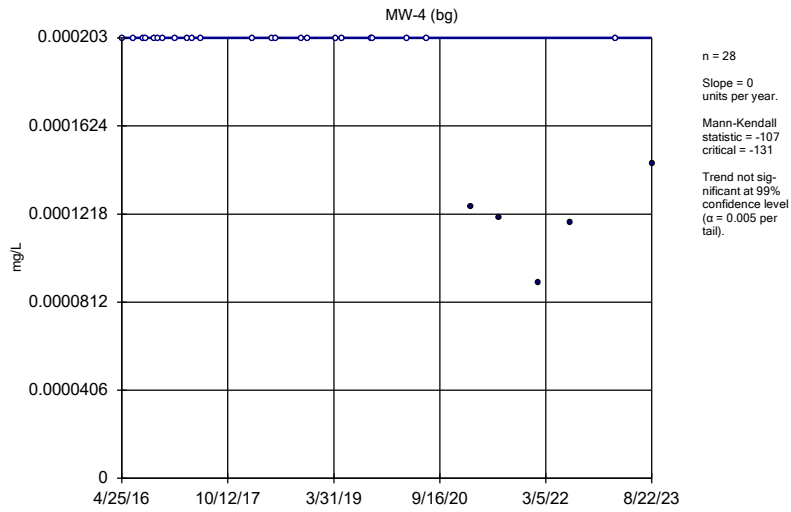
Sen's Slope Estimator

MW-3 (bg)



Constituent: Arsenic Analysis Run 10/2/2023 5:36 PM View: Appendix IV - Trend Test
Plant Gorgas Data: Gorgas BALF CCR

Sen's Slope Estimator



Constituent: Arsenic Analysis Run 10/2/2023 5:36 PM View: Appendix IV - Trend Test
Plant Gorgas Data: Gorgas BALF CCR