



Prepared for

Crisp County Power Commission

202 S. 7th Street
Cordele, Georgia 31015

2020 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

**CRISP COUNTY POWER COMMISSION
PLANT CRISP ASH POND
Warwick, Georgia**

Prepared by

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CERTIFICATION BY QUALIFIED GROUNDWATER SCIENTIST

I certify that this Groundwater Monitoring Report meets the requirements of Section 40 C.F.R. §257 of the Federal Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule (40 C.F.R. §257) and the Georgia EPD Solid Waste Management Rule for Coal Combustion Residuals (391-3-4-.10). The Groundwater Monitoring Report includes statistical methods and narrative description appropriate for evaluating the groundwater monitoring data for the CCR management area.

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LIST OF ACRONYMS

CCPC	Crisp County Power Commission
CCR	Coal Combustion Residuals
C.F.R.	Code of Federal Regulations
DNR	Department of Natural Resources
DO	Dissolved Oxygen
ft/day	Feet per Day
ft/ft	Feet per Foot
GA EPD	Georgia Environmental Protection Division
GWPS	Groundwater Protection Standard
K_h	Horizontal Hydraulic Conductivity
MCL	Maximum Contaminant Level
MW	Megawatt
NTU	Nephelometric Turbidity Units
ORP	Oxidation Reduction Potential
PE	Professional Engineer
QA/QC	Quality Assurance/Quality Control
SESD	Science and Ecosystem Support Division
SOP	Standard Operating Procedure
SSL	Statistically Significant Level
TDS	Total Dissolved Solids
USEPA	United States Environmental Protection Agency
UTL	Upper Tolerance Limit

1.0 INTRODUCTION

1.1 Overview

Geosyntec Consultants (Geosyntec) of Kennesaw, Georgia, at the request of Crisp County Power Commission (CCPC), prepared this Semi-Annual Groundwater Monitoring Report for the ash pond located at CCPC's Plant Crisp. Plant Crisp is located in Warwick, Georgia, on the southern end of Lake Blackshear (**Figure 1**). CCPC installed a groundwater monitoring well network in February 2017 in compliance with the requirements of the 40 Code of Federal Regulations (C.F.R.) §257.91 and Section 391-3-4-.10(6) of the Georgia Environmental Protection Division (GA EPD) Coal Combustion Residuals (CCR) Rule.

A groundwater detection monitoring program was conducted between February and September 2017 in compliance with the requirements of the 40 C.F.R. §257.94. The first Annual Groundwater Monitoring Report summarizing the results of detection groundwater monitoring activities was prepared in January 2018 [Geosyntec, 2018]. In compliance with 40 C.F.R. §257.95(a), CCPC initiated an assessment monitoring program for the ash pond in 2018. In compliance with 40 CFR §257.95(d)(1), semi-annual assessment monitoring events were performed in 2018 and 2019. The results of the last two semi-annual monitoring events (April 2019 and October 2019) were summarized in the Annual Groundwater Monitoring Report, submitted in January 2020 [Geosyntec, 2020a]. The assessment monitoring continued in 2020 and semi-annual monitoring event was conducted in April 2020. The groundwater monitoring was performed consistent with the Groundwater Monitoring and Statistical Analysis Plan prepared for the Plant Crisp Ash Pond in October 2017 and revised in April 2020.

The purpose of this report is to present a summary of the April 2020 assessment monitoring activities and associated laboratory and statistical analysis results. The report has been prepared to meet the semi-annual reporting requirements of GA EPD CCR Rule 391-3-4-.10(6)(c)¹.

The April 2020 assessment monitoring event was performed for all parameters in Appendix III to part §257 (referred herein as Appendix III constituents) and for

¹ The semi-annual groundwater monitoring report is a state requirement under DNR Rule 391-3-4.10(6)(c): The owner or operator of a CCR unit must submit a semi-annual report to the Division to coincide with the semi-annual sampling event. A qualified groundwater scientist must certify the report.

constituents listed in Appendix IV to part §257 (referred herein as Appendix IV constituents) (40 C.F.R. §257.95(b)).

In summary, the April 2020 groundwater sampling event detected concentrations of 40 C.F.R. §257, Appendix IV constituents but all concentrations were below their respective USEPA's maximum contaminant levels (MCLs) for those parameters with an established MCL (Appendix I to 40 C.F.R. §257)² or below USEPA's health-based level as Groundwater Protection Standard (40 C.F.R. §257.95 (h)(2)) for those constituents without an established MCL.

1.2 Site History

Plant Crisp is a dual-fuel (coal and natural gas) electrical generation facility, with a 12.5-megawatt (MW) capacity coal-fired unit and 5 MW capacity natural gas combustion turbine. The byproducts of power generation from the combustion of coal (commonly referred to as CCR) at Plant Crisp included mainly fly ash and bottom ash. The CCR was disposed into a 6.5-acre ash pond located within the plant property using wet sluicing method. The ash pond was constructed in the mid-1970s, as an unlined pond [CDM Smith, 2014], and started to receive sluiced ash in 1976. The coal burning and resulting ash disposal was conducted until August 2015. The coal burn unit was briefly re-activated in December 2016 to eliminate an existing small coal supply. The last burning of coal took place on March 22, 2017. In October 2016, CCPC submitted notification of closure by removal in accordance with 40 C.F.R. §257. The original schedule for closure would have removed CCR by February 2018, however, Georgia Department of Natural Resources (DNR) CCR management regulations were issued in November 2016, DNR Rule 391-3-4-.07(5), after the initial closure plan. DNR Rule 391-3-4-.07(5) required GA EPD's approval of CCR management plans for the receiving landfill. GA EPD approved the CCR management plan for the receiving landfill on March 28, 2019. On 19 November 2018, CCPC submitted a CCR permit application for the existing impoundment and closure of the ash pond by removal in accordance with 40 C.F.R. §257.102(c) and the GA EPD rule 391-3-4- .10 and other GA EPD regulations as applicable. GA EPD issued the Draft CCR Permit on June 30, 2020 for public commenting.

The electrical generation facility, ash pond, and hydroelectric dam are located on approximately 100 acres of CCPC property near Lake Blackshear and the Flint River (**Figure 1**). The ash pond has embankments on the western and partially southern and

² MCLs are the maximum contaminant levels for potable drinking water which are established setting a lifetime consumption risk or acute level and would be applied to municipal or other drinking water sources.

northern sides. The maximum embankment height is on the west end and is approximately 22 feet [Rizzo Associates, 2015]. The ash pond was classified as a low hazard unit during the United States Environmental Protection Agency's (USEPA) coal combustion residuals impoundment assessment, dated February 2014 and conducted by CDM Smith [CDM Smith, 2014].

1.3 Geologic and Hydrogeologic Setting

CCPC is located in the Coastal Plain Physiographic Province of Georgia, which is generally characterized by gently rolling to nearly flat topography. The Coastal Plain Physiographic Province of Georgia is characterized by Late Cretaceous and Cenozoic sedimentary rocks and sediments. Based on the Geologic Map of Georgia [Georgia Department of Natural Resources, 1997], the Site is underlain by Quaternary-aged stream alluvium and undifferentiated terrace deposits underlain by residual soil derived by the weathering of Eocene-aged limestone. Beneath the residuum is Eocene-aged limestone (the Ocala Limestone) that dips gently to the southeast and generally thickens in that direction [Hicks et al, 1987]. The Ocala Limestone comprises part of the Upper Floridan aquifer, which is underlain by low permeability zones within the Lisbon Formation (argillaceous limestone). Subsurface investigations at the Site generally describe the surface geology as embankment fill, alluvium, residuum and limestone bedrock [ND&T, 1994, Rizzo, 2015, Geosyntec, 2020b].

The uppermost aquifer at the Site is the unconfined groundwater aquifer that occurs in the alluvium and some upper portions of the residuum. The alluvial sediments consist of alternating layers of clay, silty sand, silty clayey sand, and some gravel (SM, SM-SC). While most of the residuum consists of clays and calcareous clay (marl) with limestone fragments, there may be sandy clay and gravelly clay lenses that could act along with the overlying alluvium as part of the uppermost aquifer. Based on field observations (increasing clay content with depth in the residuum and increasing blow counts with depth), the hydraulic conductivity of the residuum is expected to decline with depth. As such, the lower part of the residuum is likely a confining unit and represents the lower boundary of the uppermost aquifer. Recharge to the uppermost aquifer is from infiltration of precipitation. In March 2019, Geosyntec performed slug testing in four monitoring wells to estimate horizontal hydraulic conductivity (K_h) of the uppermost aquifer. Based on the slug testing results, the geometric mean of the K_h in the uppermost aquifer was estimated as 1.44×10^{-4} cm/sec (0.41 ft/day). This value is similar to the K_h estimated for the alluvium and residuum during previous investigations.

Under natural conditions, the water table surface is a subdued reflection of the topography, with groundwater generally flowing from southeast to northwest from the higher elevations to lower elevations toward the Flint River. The movement of groundwater in the uppermost aquifer can be characterized as porous media flow.

1.4 Groundwater Monitoring Well Network

In accordance with 40 C.F.R. §257.91, a groundwater monitoring system was installed that (1) consists of a sufficient number of wells; (2) is installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer; and (3) represents the groundwater quality both upgradient of the units (i.e., background conditions) and passing the waste boundary of the units. The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of site-specific hydrogeologic conditions. The well network was certified by a professional engineer (PE) on June 14, 2017; the certification is maintained in the facility's Operating Record. Well construction diagrams of the monitoring wells were included in the January 2018 Annual Groundwater Monitoring Report [Geosyntec, 2018] as well as the Groundwater Monitoring and Statistical Analysis Plan [Geosyntec, 2020b]. The certified groundwater monitoring well network includes one monitoring well (MW-U1) located upgradient of the ash pond, representing background groundwater conditions, and three monitoring wells (MW-D1, MW-D2, and MW-D3) located downgradient of the ash pond. The locations of the monitoring wells are shown on **Figure 1** and well construction details are provided in **Table 1**. The monitoring wells are screened in the uppermost aquifer underlying the ash pond, which occurs in the alluvium and some upper portions of the residuum.

CCPC does not currently plan to expand the certified monitoring well network. During the monitoring period: (i) all wells were functioning properly; (ii) there were no dry wells; and (iii) no additional well installation or abandonment was conducted. Inspection of certified well network by a qualified groundwater scientist will be performed by 2022 (i.e., within five years after installation).

2.0 GROUNDWATER SAMPLING AND LABORATORY ANALYSIS RESULTS

2.1 Groundwater Sampling and Laboratory Analysis

Groundwater assessment monitoring events were conducted on April 27, 2020. The groundwater samples were collected in accordance with the USEPA Science and Ecosystem Support Division (SESD) Standard Operating Procedure (SOP No. SESDPROC-301-R4) [USEPA, Athens, Georgia, 2017]. Prior to sampling, depth to groundwater and total well depth were measured for each monitoring well using an electrical water level indicator. The water level indicator was cleaned between wells following the decontamination procedure listed under SESDPROC-205-R3 [USEPA, Athens, Georgia, 2015]. Depth to groundwater data and groundwater elevations are summarized in **Table 2**. The groundwater elevation data were used to prepare a potentiometric surface map (**Figure 2**). Based on the April 2020 potentiometric surface map, groundwater flow direction is from southeast towards northwest and the hydraulic gradient is approximately 0.008 ft/ft (**Table 3**). The approximate horizontal groundwater flow velocity was calculated using Darcy's equation as 5.7 ft/year (**Table 3**).

Groundwater sampling was performed using a low-flow sampling method. To assess that the samples collected were representative of the groundwater in the aquifer, field water quality parameters were measured during purging using a Horiba U-52 water quality meter. These parameters include temperature, pH, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO). Measurements were taken within an enclosed flow-through cell to minimize effects of contact with air. Turbidity was measured using Hach 2100P turbidity meter. Purging was considered complete when the following stabilization criteria were met for at least three consecutive measurements (as defined by USEPA SESD SOP No. SESDPROC-301-R4):

- pH \pm 0.1 Standard Units.
- Conductivity \pm 5%.
- dissolved oxygen \pm 0.2 milligrams per liter (mg/L) or \pm 10% change in saturation, whichever is greater.
- Turbidity measured less than 10 nephelometric turbidity units (NTU).
- ORP \pm 20 mV.

Field groundwater sampling forms are provided in **Appendix A**.

The groundwater samples were collected in laboratory-provided containers. Following sampling, the bottles were sealed, labeled, packed in ice, and shipped under chain-of-custody protocol to Eurofins Test America Laboratories in Pensacola, FL, a certified laboratory pursuant to the Georgia State Program. The chain-of-custody procedures were conducted in accordance with SEDPROC-005-R2 [USEPA, Athens, Georgia 2013]. The groundwater samples were analyzed for Appendix III constituents (i.e., boron, calcium, chloride, fluoride, sulfate, total dissolved solids) and Appendix IV constituents (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, radium, selenium, and thallium). The metal constituents were analyzed as total recoverable as the samples were not field-filtered. Radium was analyzed at Eurofins Test America Laboratories in St. Louis, MO. Groundwater pH was measured in the field.

Field duplicate sample (DUP-14) was collected from MW-D1 for Quality assurance/quality control (QA/QC). The duplicate sample was collected in laboratory-provided bottles and submitted under the same chain-of-custody as the primary sample for analysis of the same parameters by Eurofins Test America laboratories.

2.2 Groundwater Monitoring Results

Laboratory analytical results for Appendix III constituents are summarized in **Table 4**. Appendix III constituents (boron, calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS)) were detected in the downgradient monitoring well locations. Similarly, Appendix III constituents were detected in the upgradient monitoring well.

Laboratory analytical results for Appendix IV constituents are summarized in **Table 5**. Low levels of Appendix IV constituents (arsenic, barium, cadmium, cobalt, fluoride, lithium, molybdenum, selenium, radium 226 and 228 combined, and thallium) were detected at the downgradient monitoring wells. Similarly, low levels of arsenic, barium, chromium, fluoride, and selenium were detected in the background/upgradient monitoring well MW-U1. **Table 5** shows that the detected concentrations of Appendix IV constituents are below their respective USEPA's maximum contaminant levels (MCLs) for those parameters with an established MCL (Appendix I to 40 C.F.R. §257) or below USEPA's health-based level as Groundwater Protection Standard (40 C.F.R. §257.95 (h)(2)) for those constituents without an established MCL. Low level Appendix IV constituents detected during the April 2020 monitoring event can be naturally

occurring as some of these constituents were also detected at low concentrations in the background well.

Laboratory reports for Appendix III and Appendix IV constituents are included in **Appendix B**. Groundwater data collected during the April 2020 assessment monitoring were statistically evaluated in accordance with 40 C.F.R. §257.93(g) as discussed in Section 3 below.

3.0 ASSESSMENT MONITORING STATISTICAL DATA ANALYSIS PROCEDURES

Statistical analysis of the groundwater data collected during the assessment monitoring event was performed in accordance with the methods listed in the Groundwater Monitoring and Statistical Analysis Plan [Geosyntec, 2020b]. The statistical methods meet the requirements of the methods specified in 40 C.F.R. §257.93(f) (1) through (5) and the performance standards specified in 40 C.F.R. §257.93(g). Statistical analysis was performed using Sanitas™ v.9.6.05 software for Appendix IV constituents.

The primary objectives of the statistical data analysis conducted during this reporting period are:

- (i) To calculate statistically derived background concentration for each Appendix IV constituent. The statistically derived background concentration is used as Groundwater Protection Standard (GWPS) when the statistically derived background concentration is higher than the MCL (if an MCL has been established under 40 C.F.R. §161.62 and 40 C.F.R. §141.66) or the standard listed under 40 C.F.R. §257.95 (h)(2) for those constituents without an established MCL.
- (ii) To construct a lower confidence interval for each constituent at each downgradient well and compare the lower confidence interval to an established GWPS and determine whether a statistically significant level (SSL) is present at any of the downgradient monitoring wells.

3.1 GWPS for Appendix IV Constituents

As a first step in developing the GWPS, groundwater data from the background well were screened for potential outlier (anomalous) data. In addition to visual inspection using time-series plots, statistical methods, such as the USEPA 1989 Outlier Screening method, were used to identify outliers in the groundwater data (when the data was normally distributed). Tukey's Outlier Screening method was used when background well data was not normally distributed. Although outliers were detected, they were not removed from the statistical analysis due to: (i) a large number of non-detects in the data set; and (ii) the USEPA Unified Guidance recommendation on screening data only if the source of the outlier is known. Data distribution was checked using Shapiro Wilk method at 99% confidence level. This method is appropriate for a sample size of less than 50. For

statistical data analysis, non-detect laboratory results were replaced with their reporting limit in accordance with the USEPA Unified Guidance recommendation [USEPA, 2009].

The USEPA Unified Guidance recommends utilizing upper tolerance limits (UTL) from the background well to establish background concentrations. In addition, the CCR Rule lists the UTL method, calculated using data from the background well, as one of the methods acceptable for CCR data analysis [40 C.F.R. §257.93(f)(3)]. As a result, the GWPSs for the site were developed utilizing the UTL method and generally consisted of the following procedures:

- Parametric tolerance limits (95% coverage and 95% confidence) were constructed when the background data followed a normal or transformed-normal distribution.
- Non-parametric tolerance limits were calculated for data sets with greater than 50% non-detect values, and for data sets which do not follow a normal or transformed-normal distribution.
- The UTL was calculated for each constituent using background well data collected during the eight detection monitoring events and the assessment monitoring events conducted to date. As described in 40 C.F.R. §257.95(h), the GWPS is:
 - (1) the maximum contaminant level (MCL) established under 40 C.F.R. §141.62 and §141.66.
 - (2) where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L;
 - (ii) Lead 0.015 mg/L;
 - (iii) Lithium 0.040 mg/L; and
 - (iv) Molybdenum 0.100 mg/L.
 - (3) the UTL computed from background well data for constituents where the UTL is higher than the MCL or rule specified GWPS.

- USEPA’s updated GWPS have not yet been incorporated under GA EPD’s CCR Rule³. The GWPS based on the GA EPD CCR Rule is:
 - (1) The federally established MCL for Appendix IV constituents.
 - (2) Where an MCL has not been established, the background concentration for Appendix IV constituents.
 - (3) Background levels for constituents where the background level is higher than the MCL for Appendix IV constituents.

3.2 Evaluation of SSLs for Appendix IV Constituents

The USEPA Unified Guidance [USEPA, 2009] recommends utilizing the lower confidence interval from a downgradient well along with the double quantification rule to evaluate SSLs. A 99% lower confidence interval was constructed for each constituent at each downgradient well and the double quantification rule was used to evaluate SSLs. Under this rule, an SSL can be concluded if the lower confidence limit is higher than the GWPS.

³ GA EPD has adopted Federal CCR Rule as provided in 80 Fed. Reg. 21468 (April 17, 2015); as amended at 80 Fed. Reg. 37988 (July 2, 2015) and 81 Fed. Reg. 51807 (August 5, 2016). Portions of these federal rules have since been repealed. See, e.g. 83 Fed. Reg. 36,435 (July 30, 2018).

4.0 STATISTICAL ANALYSIS RESULTS

The statistical analysis results are summarized in **Table 6**, which shows the (i) ratio of non-detects to total number of samples; (ii) basic statistics for each constituent in a monitoring well such as minimum and maximum; (iii) UTL of each constituent constructed based on the background well data; (iv) an MCL value for the constituent (if available) established under 40 C.F.R. §161.62 and 40 C.F.R. §141.66 or the standard listed under 40 C.F.R. §257.95(h)(2); and (v) the selected GWPS for each constituent.

Table 7 shows the lower confidence limit constructed for each constituent at each downgradient well and the results of comparison between the lower confidence limit and the selected GWPS to evaluate if there are any SSLs. Comparison of the lower confidence limit to the selected GWPS revealed no SSLs during the April 2020 monitoring period. The Sanitas[™] statistical calculations and time-series graphs for each constituent are provided in **Appendix C**.

5.0 FUTURE GROUNDWATER MONITORING PROGRAM

Data collected during the assessment monitoring events indicated that Appendix IV constituents detected in the downgradient monitoring wells were below their respective GWPS. Pursuant to the CCR Rule 40 C.F.R. §257.95(d)(1) and GA EPD's CCR Rules, groundwater samples will be collected semi-annually. The next semi-annual monitoring event will be in October 2020. Groundwater samples collected in October 2020 will be analyzed for Appendix III constituents and for Appendix IV constituents that were detected during the April 2020 monitoring event. The October 2020 monitoring results will be included in the 2020 annual groundwater monitoring report that will be submitted to GA EPD by 31 January 2021.

6.0 REFERENCES

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USEPA (2017). Science and Ecosystem Support Division (SESD, Athens, Georgia) Standard Operating Procedure (SOP) (SESDPROC-301-R4).

TABLES

**Table 1. Monitoring Well Network Summary
Crisp County Power Commission
Plant Crisp Ash Pond**

Well ID	Hydraulic Location	Installation Date	Well Depth during Installation (ft BTOC)	Easting	Northing	TOC Elevation (ft MSL)	Screen Interval Elevation (ft MSL)
MW-D1	Downgradient	2/22/2017	23.16	2365315.12	670708.47	241.77	218.85 - 228.85
MW-D2	Downgradient	2/21/2017	23.37	2365308.73	671291.61	232.66	209.64 - 219.64
MW-D3	Downgradient	2/22/2017	23.54	2365715.53	671291.07	233.78	210.52 - 220.52
MW-U1	Upgradient	2/23/2017	36.95	2366420.55	669996.79	249.52	212.78 - 222.78

Notes:

ft = feet

MSL = mean sea level.

TOC = Top of casing

BTOC = Below top of casing

The easting, northing, and TOC elevations were obtained from a revised survey performed by J.B. Faircloth & Associates, P.C. on 26 November 2019.

**Table 2. Groundwater Elevation Summary
Crisp County Power Commission
Plant Crisp Ash Pond**

Well ID	TOC Elevation (ft MSL)	4/27/2020	
		Depth to Groundwater (ft BTOC)	Groundwater Elevation (ft MSL)
MW-D1	241.77	12.07	229.70
MW-D2	232.66	9.37	223.29
MW-D3	233.78	4.99	228.79
MW-U1	249.52	6.82	242.70
Lake Blackshear	--	--	236.99

Notes:

ft = feet

MSL = mean sea level.

TOC = Top of casing

BTOC = Below top of casing

**Table 3. Hydraulic Gradient and Groundwater Flow Velocity Calculations
Crisp County Power Commission
Plant Crisp Ash Pond**

Hydraulic Gradient - April 27, 2020 Data				Groundwater Flow Velocity		
h ₁ (ft)	h ₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K _h (ft/day)	η _e	V (ft/year) ¹
242.70	229.70	1,710	0.008	0.41	0.20	5.7

Notes:

ft = feet

ft/day = feet per day

ft/ft = feet per foot

h₁ and h₂ = groundwater elevation for MW-U1 and MW-D1, respectively.

Δh/Δl = hydraulic gradient

K_h = a geometric mean hydraulic conductivity (0.41 ft/day) was estimated using slug testing in monitoring wells.

Δl = distance between MW-U1 and MW-D1.

η_e = effective porosity (estimated based on fine-grained sand aquifer) (Kresic, 2007)

V = groundwater flow velocity

⁽¹⁾ Groundwater flow velocity equation: $V = [K_h * (\Delta h / \Delta l)] / \eta_e$

**Table 4. Appendix III Analytical Data Summary - Sampling Performed on April 27, 2020
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix III to 40 CFR Part 257 - Constituents for Detection Monitoring

Constituent	Unit	MCL ⁽¹⁾	MDL ⁽²⁾	Upgradient Well ID	Downgradient Well ID			
				MW-U1	MW-D1		MW-D2	MW-D3
					MW-D1	DUP-14		
Boron	mg/L	N/A	0.0036	<0.01 (0.0042 J)	0.13	0.14	0.13	0.23
Calcium	mg/L	N/A	0.03	31	20	20	120	100
Chloride	mg/L	N/A	1.4	2.4	2.5	2.2	5.1	5.1
Fluoride	mg/L	4	0.032	<0.1 (0.05 J)	<0.1 (0.04 J)	<0.1 (0.06 J)	<0.1 (0.05 J)	0.10
Sulfate	mg/L	N/A	1.4	<5 (2.6 J)	20	21	16	33
pH	SU	N/A	--	6.05	6.08	6.08	4.80	6.93
Total Dissolved Solids	mg/L	N/A	5.0	120	110	68	370	360

Notes:

J - result is less than the reporting level but greater than or equal to the MDL and the reported concentration is an approximate value.

SU - standard unit.

N/A - not applicable because the constituent does not have an MCL.

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR §141.66.
 2. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.
- There is no MDL for pH. Groundwater pH was measured in the field using a Horiba water quality meter.

**Table 5. Appendix IV Analytical Data Summary - Sampling Performed on April 27, 2020
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix IV to 40 CFR Part 257 - Constituents for Assessment Monitoring

Constituent	Unit	MCL ⁽¹⁾	USEPA's Health-Based Level ⁽²⁾	MDL ⁽³⁾	Upgradient Well ID		Downgradient Well ID		
					MW-U1	MW-D1		MW-D2	MW-D3
						MW-D1	DUP-14		
Antimony	mg/L	0.006	N/A	0.0003	ND ^	ND ^	ND ^	ND ^	ND
Arsenic	mg/L	0.01	N/A	0.000078	<0.0025 (0.00015 JB)	ND ^	<0.00025 (0.00019 JB)	0.00027 B	0.001 B
Barium	mg/L	2	N/A	0.00014	0.0022	0.015	0.016	0.15	0.091
Beryllium	mg/L	0.004	N/A	0.000034	ND ^	ND	ND ^	ND ^	ND ^
Cadmium	mg/L	0.005	N/A	0.000056	ND	ND	ND ^	<0.0002 (0.000075 J^)	<0.0002 (0.000071 J)
Chromium	mg/L	0.1 ⁽⁴⁾	N/A	0.0002	0.0013	ND ^	ND ^	ND ^	ND ^
Cobalt	mg/L	N/A	0.006	0.00011	ND ^	ND ^	ND ^	0.001	<0.0005 (0.00035 J)
Fluoride	mg/L	4	N/A	0.032	<0.10 (0.05 J)	<0.10 (0.04 J)	<0.10 (0.06 J)	<0.10 (0.05 J)	0.10
Lead	mg/L	0.015 ⁽⁵⁾	N/A	0.000058	ND ^	ND ^	ND ^	ND ^	ND ^
Lithium	mg/L	N/A	0.04	0.00038	ND ^	ND ^	ND ^	ND	<0.0005 (0.00048 J)
Mercury	mg/L	0.002 ⁽⁶⁾	N/A	0.00007	ND	ND	ND	ND	ND
Molybdenum	mg/L	N/A	0.1	0.0009	ND ^	ND ^	ND ^	ND ^	<0.002 (0.0019 J)
Radium 226 and 228 Combined	pCi/L	5	N/A	-- ⁽⁷⁾	0.298 U	0.401	0.274 U	0.184 U	0.326 U
Selenium	mg/L	0.05	N/A	0.00016	0.00061	ND	ND	ND	<0.00025 (0.00021 J)
Thallium	mg/L	0.002	N/A	0.000024	ND ^	ND ^	ND ^	0.00013	0.00012

Notes:

ND - the constituent was not detected above the analytical method detection limit (MDL).

B - compound was found in the blank and sample.

J - concentration is less than the reporting level but greater than or equal to the MDL and the reported concentration is an approximate value.

U - result is less than the sample detection limit.

^ - Instrument related QC is outside acceptance limits.

N/A - not applicable for the constituent.

1. MCLs indicate USEPA maximum contaminant levels. MCLs are established under 40 CFR §141.62 and 40 CFR§141.66.

2. USEPA's health-based level as Groundwater Protection Standard (40 CFR §257.95 (h)(2)).

3. MDL indicates minimum detection limit, which is the minimum concentration of analyte that can be measured and reported.

4. MCL value for total chromium.

5. Lead Treatment Technology Action Level is 0.0015 mg/L.

6. Value for inorganic mercury.

7. During the analysis of radium, background concentrations are subtracted, thus each sample have a different Minimum Detectable Concentration (MDC). The MDCs were as follows:
0.368 pCi/L for MW-U1, 0.387 pCi/L for MW-D1, 0.336 pCi/L for MW-D2, 0.361 pCi/L for MW-D3, and 0.350 pCi/L for DUP-14.

**Table 6. Summary of Basic Groundwater Statistics and GWPS for Appendix IV Constituents
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix IV to Part 257 - Constituents for Assessment Monitoring	Well ID	Number of Samples	Number of Non-detects	% Non-detects	Minimum	Maximum	Upper Tolerance Limit	Maximum Contaminant Level (MCL established under 40 CFR §161.62 and 40 CFR §141.66) or Groundwater Protection Standard (GWPS listed under 40 CFR §257.95(h)(2))	Selected Groundwater Protection Standard (GWPS) for the Site
Antimony [mg/L]	MW-U1	11	11	100%	<0.0005	<0.0025	0.0025	0.006	0.006
	MW-D1	11	11	100%	<0.0005	<0.0025			
	MW-D2	11	11	100%	<0.0005	<0.0025			
	MW-D3	11	11	100%	<0.0005	<0.0025			
Arsenic [mg/L]	MW-U1	13	11	85%	0.000156 (J)	<0.0013	0.0013	0.01	0.01
	MW-D1	13	13	100%	<0.00025	<0.0013			
	MW-D2	13	9	69%	0.00027 (J)	<0.0013			
	MW-D3	14	2	14%	0.00048 (J)	0.0016			
Barium [mg/L]	MW-U1	14	0	0%	0.0018	0.0034	0.003562	2	2
	MW-D1	14	0	0%	0.0095	0.027			
	MW-D2	14	0	0%	0.087	0.190			
	MW-D3	14	0	0%	0.091	0.230			
Beryllium [mg/L]	MW-U1	11	11	100%	<0.0004	<0.0025	0.0025	0.004	0.004
	MW-D1	11	11	100%	<0.0004	<0.0025			
	MW-D2	11	11	100%	<0.0004	<0.0025			
	MW-D3	11	11	100%	<0.0004	<0.0025			
Cadmium [mg/L]	MW-U1	11	11	100%	<0.0002	<0.0025	0.0025	0.005	0.005
	MW-D1	11	11	100%	<0.0002	<0.0025			
	MW-D2	11	10	91%	0.000075 (J)	<0.0025			
	MW-D3	11	10	91%	0.000071 (J)	<0.0025			
Chromium [mg/L]	MW-U1	12	0	0%	0.0011	0.0051	0.0051	0.1	0.1
	MW-D1	12	11	92%	<0.0005	0.0034			
	MW-D2	12	11	92%	<0.0005	0.0038			
	MW-D3	12	11	92%	<0.0005	0.0029			
Cobalt [mg/L]	MW-U1	14	14	100%	<0.0005	<0.0025	0.0025	0.006	0.0025*
	MW-D1	14	14	100%	<0.0005	<0.0025			
	MW-D2	14	12	86%	0.00047 (J)	<0.0025			
	MW-D3	14	0	0%	0.00035 (J)	0.0017 (J)			
Fluoride [mg/L]	MW-U1	14	1	7%	0.040	0.100	0.082	4	4
	MW-D1	14	0	0%	0.040	0.120			
	MW-D2	14	0	0%	0.040	0.070			
	MW-D3	14	0	0%	0.060	0.130			
Lead [mg/L]	MW-U1	11	10	91%	<0.00025	<0.0013	0.0013	0.015	0.0013*
	MW-D1	11	10	91%	<0.00025	<0.0013			
	MW-D2	11	9	82%	<0.00025	<0.0013			
	MW-D3	11	11	100%	<0.00025	<0.0013			
Lithium [mg/L]	MW-U1	12	11	92%	0.00034 (J)	<0.0025	0.0025	0.04	0.0025*
	MW-D1	12	12	100%	<0.0005	<0.005			
	MW-D2	12	11	92%	<0.0005	<0.005			
	MW-D3	12	10	83%	0.00048 (J)	<0.005			
Mercury [mg/L]	MW-U1	11	10	91%	0.000099 (J)	<0.0002	0.0002	0.002	0.002
	MW-D1	11	10	91%	0.000077 (J)	<0.0002			
	MW-D2	11	8	73%	0.00011 (J)	0.001			
	MW-D3	11	10	91%	0.00011 (J)	<0.0002			
Molybdenum [mg/L]	MW-U1	13	13	100%	<0.002	<0.01	0.01	0.10	0.01*
	MW-D1	13	13	100%	<0.002	<0.015			
	MW-D2	13	10	77%	0.0012 (J)	<0.015			
	MW-D3	13	2	15%	0.0017 (J)	<0.01			
Radium 226 and 228 Combined [pCi/L]	MW-U1	14	3	21%	0.000	0.614	0.6604	5	5
	MW-D1	14	2	14%	0.099	0.816			
	MW-D2	14	3	21%	0.0139	1.280			
	MW-D3	14	2	14%	0.0501	1.280			
Selenium [mg/L]	MW-U1	12	5	42%	0.00039	<0.0013	0.001	0.05	0.05
	MW-D1	12	11	92%	<0.00025	<0.0013			
	MW-D2	12	9	75%	<0.00025	<0.0013			
	MW-D3	12	8	67%	0.00021 (J)	0.0028			
Thallium [mg/L]	MW-U1	13	13	100%	<0.0001	<0.0005	0.0005	0.002	0.002
	MW-D1	13	13	100%	<0.0001	<0.0005			
	MW-D2	14	4	29%	0.000085 (J)	<0.0005			
	MW-D3	14	0	0%	0.000095 (J)	0.00017 (J)			

Notes:

mg/L = milligrams per liter

pCi/L = picocuries per liter

ND = Not Detected

NA = Not Available

Highlighted cells show the background well (MW-U1).

J - Result is less than the reporting level but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.

*: The background level or UTL was selected as GWPS because USEPA's updated GWPS have not yet been incorporated under GA EPD Rule.

**Table 7. Summary of Basic Groundwater Statistics and GWPS for Appendix IV Constituents
Crisp County Power Commission
Plant Crisp Ash Pond**

Appendix IV to Part 257 - Constituents for Assessment Monitoring	Well ID	Selected Groundwater Protection Standard (GWPS) for the Site (From Table 6)	Lower Confidence Limit if Detected During the April 2020 Monitoring Period	Concentrations in Downgradient Well Show Statistically Significant Level (SSL) Above GWPS?
Antimony [mg/L]	MW-U1	0.006	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		ND	No
Arsenic [mg/L]	MW-U1	0.01	Background Well	
	MW-D1		ND	No
	MW-D2		0.0005	No
	MW-D3		0.0006	No
Barium [mg/L]	MW-U1	2	Background Well	
	MW-D1		0.010	No
	MW-D2		0.121	No
	MW-D3		0.140	No
Beryllium [mg/L]	MW-U1	0.004	Background Well	
	MW-D1		ND	No
	MW-D2		0.0002	No
	MW-D3		0.0002	No
Cadmium [mg/L]	MW-U1	0.005	Background Well	
	MW-D1		ND	No
	MW-D2		0.00008	No
	MW-D3		0.00007	No
Chromium [mg/L]	MW-U1	0.1	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		ND	No
Cobalt [mg/L]	MW-U1	0.0025	Background Well	
	MW-D1		ND	No
	MW-D2		0.0003	No
	MW-D3		0.001	No
Fluoride [mg/L]	MW-U1	4	Background Well	
	MW-D1		0.055	No
	MW-D2		0.050	No
	MW-D3		0.101	No
Lead [mg/L]	MW-U1	0.0013	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		ND	No
Lithium [mg/L]	MW-U1	0.0025	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		0.0005	No
Mercury [mg/L]	MW-U1	0.002	Background Well	
	MW-D1		ND	No
	MW-D2		0.0001	No
	MW-D3		ND	No
Molybdenum [mg/L]	MW-U1	0.01	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		0.002	No
Radium 226 and 228 Combined [pCi/L]	MW-U1	5	Background Well	
	MW-D1		0.174	No
	MW-D2		ND	No
	MW-D3		ND	No
Selenium [mg/L]	MW-U1	0.05	Background Well	
	MW-D1		ND	No
	MW-D2		ND	No
	MW-D3		0.0002	No
Thallium [mg/L]	MW-U1	0.002	Background Well	
	MW-D1		ND	No
	MW-D2		0.0001	No
	MW-D3		0.0001	No

Notes:

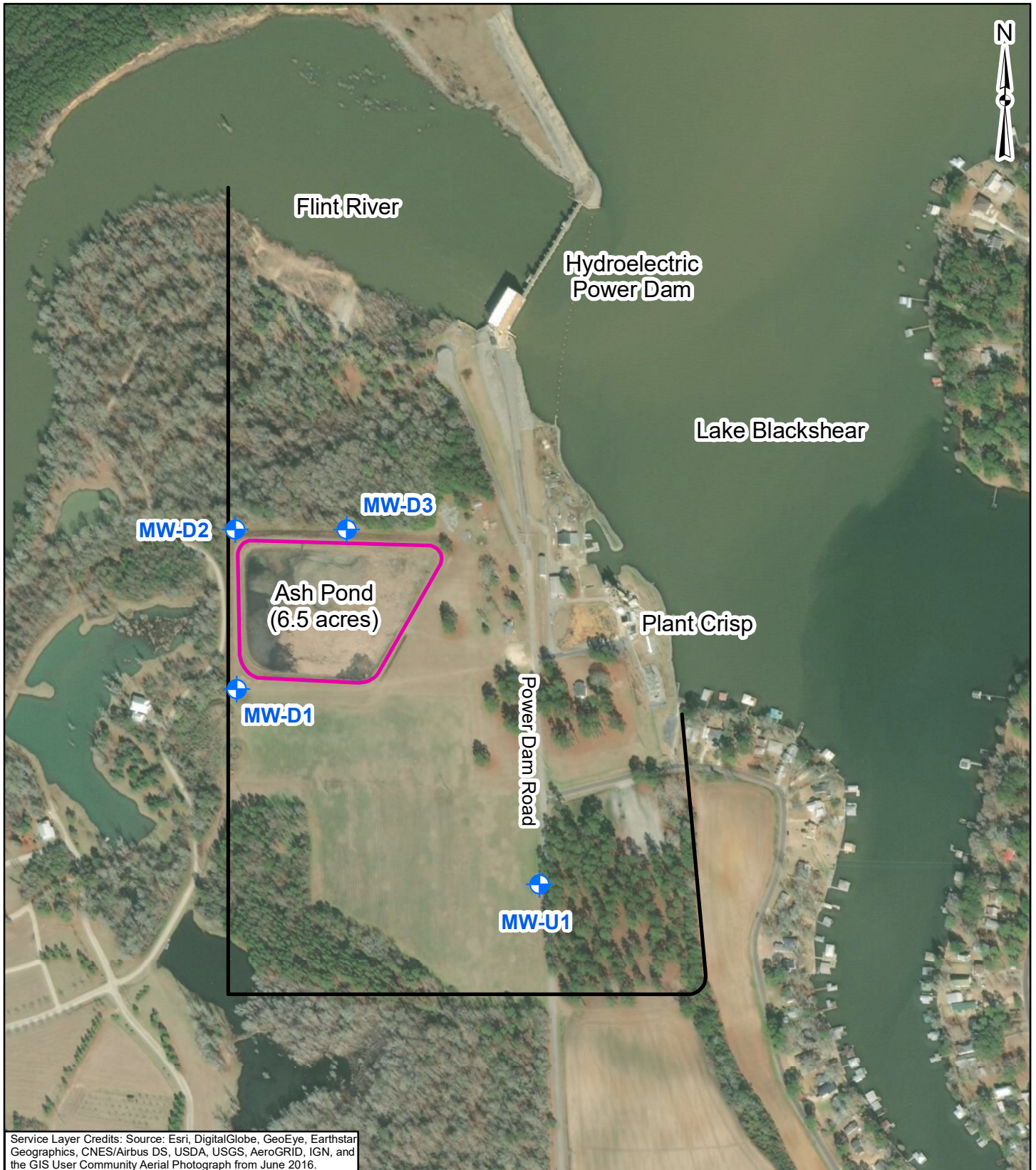
mg/L = milligrams per liter

pCi/L = picocuries per liter

ND = Not Detected

Highlighted cells show the background well (MW-U1).

FIGURES



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Aerial Photograph from June 2016.

N:\Crisp County\GIS\IMXD2020\GW Monitoring Well Location Map.mxd 6/9/2020 4:37:20 PM



Legend

- Groundwater Monitoring Well
- Ash Pond Limits
- CCPC Property Boundary

0 250 500 1,000 Feet

Groundwater Monitoring Well Location Map	
Crisp County Power Commission Warwick, Georgia	
	DATE: JULY 2020
	PROJECT NO. GW6152
	DOCUMENT NO. GA 200289
	FILE NO. GW MONITORING WELL LOCATION MAP.MXD
KENNESAW, GA	FIGURE NO. 1



N:\Crisp County\GIS\IMXD\2020\April 2020 Potentiometric Surface Map.mxd 6/9/2020 4:44:25 PM

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Aerial Photograph from June 2016.



Legend

- Groundwater Monitoring Well
- Groundwater Flow Direction
- Elevation Contour - 27 April 2020 (ft)
- Ash Pond Limits
- CCPC Property Boundary

0 250 500 1,000 Feet

Potentiometric Surface Map	
27 April 2020	
Crisp County Power Commission Warwick, Georgia	
	DATE: JULY 2020
	PROJECT NO. GW6152
	DOCUMENT NO. GA 200289
	FILE NO. APRIL 2020 POTENTIOMETRIC SURFACE MAP.MXD
KENNESAW, GA	FIGURE NO. 2

APPENDIX A

Field Groundwater Sampling Forms

WATER LEVEL MEASUREMENTS

Site Name: <u>CRISP Co POWER</u>	Sampling Personnel: <u>S. RANDALL</u>
Location: <u>WARWICK, GA</u>	Field Conditions: <u>SCATTERED CLOUDS</u>
Date: <u>4/27/2020</u>	<u>51°</u>

Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
MW-D3	0842		4.99	22.52		
MW-D2	0847		9.37	22.40		
MW-D1	0852		12.07	22.60		
MW-U1	0857		6.82	37.15		
END OF DAY WATER LEVELS						
MW-D3	1715		4.99	22.52		
MW-D2	1720		9.36	22.40		
MW-D1	1725		12.07	22.60		
MW-U1	1730		6.85	37.15		

0800 Dup-14-20200427

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D1	SAMPLE ID: MW-D1-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 12.07	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22.6 feet - 12.07 feet) X 0.16 gallons/foot = 1.7 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17'	PURGING INITIATED AT: 13.05	PURGING ENDED AT: 14.00	TOTAL VOLUME PURGED (gallons): 2.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1305	0.00	0.00	0.066	12.2	5.66	22.03	130	9.26	5.0	195	CLEAR
1341	1.7	1.7	0.066	12.22	5.85	21.59	141	9.41	3.0	202	CLEAR
1346	0.33	2.03	0.066	12.22	5.94	21.69	141	8.41	2.0	198	CLEAR
1351	0.33	2.36	0.066	12.22	6.01	21.91	141	7.54	1.0	196	CLEAR
1354	0.33	2.69	0.066	12.22	6.09	21.83	140	7.45	1.0	194	CLEAR
1359	0.33	3.02	0.066	12.22	6.08	21.79	140	6.75	1.0	195	CLEAR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL			SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>			SAMPLING INITIATED AT: 14.05		SAMPLING ENDED AT: 14.11	
PUMP OR TUBING DEPTH IN WELL (feet): _____			TUBING MATERIAL CODE: LDPE		FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input type="radio"/>			TUBING Y <input checked="" type="radio"/> N <input type="radio"/> (replaced)			DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228	APP	250
	1	HDPE	1.0L	NONE	----		SM4500, 2540C	APP	250
	1	HDPE	0.25L	HNO3	----		6020, 7470A	APP	250

FIELD SAMPLING CONDITIONS:
 1. Well Sign Present: Yes No
 2. Well Access: CLEAR
 3. Sampling & Purging Equipment Condition: EXCELLENT; RECALIBRATED HORIBA
 4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
 pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D2	SAMPLE ID: MW-D2-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 9.37	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22.40 feet - 9.37 feet) X 0.16 gallons/foot = 2.08 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17'		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17'		PURGING INITIATED AT: 0935
				PURGING ENDED AT: 1027
TOTAL VOLUME PURGED (gallons): 3.6				

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
0935	0.00	0.00	0.066	10.42	7.54	15.83	753	0.00	17	288	CLEAR
1001	2.0	2.0	0.066	11.83	4.55	17.94	723	0.11	10	212	CLEAR
1006	0.33	2.33	0.066	11.7	4.49	18.06	722	0.20	2	222	CLEAR
1011	0.33	2.66	0.066	11.74	4.64	18.19	718	0.22	2	213	CLEAR
1016	0.33	2.99	0.066	11.78	4.75	18.27	715	0.41	2	202	CLEAR
1021	0.33	3.32	0.066	11.81	4.77	18.34	713	0.54	2	197	CLEAR
1026	0.33	3.65	0.066	11.83	4.80	18.44	710	0.56	2	199	CLEAR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL		SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>		SAMPLING INITIATED AT: 1030	SAMPLING ENDED AT: 1044
PUMP OR TUBING DEPTH IN WELL (feet): 17'		TUBING MATERIAL CODE: LDPE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> (N)	FILTER SIZE: _____ μm
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> (N)		TUBING Y <input checked="" type="checkbox"/> (N) (replaced)		DUPLICATE: Y <input checked="" type="checkbox"/> (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228	APP	250
	1	HDPE	1.0L	NONE	----		SM4500, 2540C	APP	250
	1	HDPE	0.25L	HNO3	----		6020, 7470A	APP	250

FIELD SAMPLING CONDITIONS:
 1. Well Sign Present: Yes No
 2. Well Access: NO PROBLEMS NOTED
 3. Sampling & Purging Equipment Condition: EXCELLENT
 4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
 pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-D3	SAMPLE ID: MW-D3-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 4.99	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (22.52 feet - 4.99 feet) X 0.16 gallons/foot = 2.8 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17'		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17'		PURGING INITIATED AT: 1059
				PURGING ENDED AT: 1212
TOTAL VOLUME PURGED (gallons): 4.5				

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1059	0.00	0.00	0.066	6.26	7.66	20.14	656	2.28	3.0	153	clear
1146	2.8	2.8	0.066	7.30	7.05	21.51	681	4.05	1.0	103	
1151	0.33	3.13	0.066	7.31	6.52	21.70	679	3.04	1.0	61	
1156	0.33	3.46	0.066	8.27	6.85	21.95	676	2.58	1.0	33	
1201	0.33	3.79	0.066	8.32	6.93	22.14	673	2.36	1.0	19	
1206	0.33	4.12	0.066	8.34	6.91	22.25	671	2.30	1.0	108	
1211	0.33	4.45	0.066	8.35	6.93	22.63	665	2.38	1.0	90	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL			SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>			SAMPLING INITIATED AT: 1215		SAMPLING ENDED AT: 1234					
PUMP OR TUBING DEPTH IN WELL (feet): 17'			TUBING MATERIAL CODE: LDPE			FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (Replaced)			DUPLICATE: Y <input checked="" type="checkbox"/>										
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228		APP		250		
	1	HDPE	1.0L	NONE	----		SM4500, 2540C		APP		250		
	1	HDPE	0.25L	HNO3	----		6020, 7470A		APP		250		

FIELD SAMPLING CONDITIONS:
 1. Well Sign Present: Yes No
 2. Well Access: CLEAR
 3. Sampling & Purging Equipment Condition: EXCELLENT; PH LOOKS A LITTLE OFF.
 4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)
 pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

GROUNDWATER SAMPLING LOG

SITE NAME: CRISP COUNTY POWER COMMISSION	SITE LOCATION: 961 Power Dam Road, Warwick, GA 31796
WELL NO: MW-41	SAMPLE ID: MW-41-20200427
DATE: 4/27/2020	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH: 27 feet to 37 feet	STATIC DEPTH TO WATER (feet): 6.82	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (37.15 feet - 6.82 feet) X 0.16 gallons/foot = 4.9 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32'	PURGING INITIATED AT: 1457	PURGING ENDED AT: 1629	TOTAL VOLUME PURGED (gallons): 5.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mv)	COLOR (describe)
1457 0439	0.00	0.00	0.066	7.27	2.67	26.90	148	4.83	12	391	CLEAR
1614	4.9	4.9	0.066	7.20	5.98	26.93	143	0.00	1	268	
1619	0.33	5.23	0.066	7.20	6.02	27.00	145	0.00	1	266	
1624	0.33	5.56	0.066	7.20	6.04	27.04	145	0.00	1	266	
1629	0.33	5.89	0.066	7.20	6.05	27.09	145	0.00	1	266	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: STEPHEN W. RANDALL			SAMPLER(S) SIGNATURE(S): <i>Stephen W. Randall</i>			SAMPLING INITIATED AT: 1630		SAMPLING ENDED AT: 1700	
PUMP OR TUBING DEPTH IN WELL (feet): 32'			TUBING MATERIAL CODE: LDPE		FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input type="radio"/>			TUBING Y <input checked="" type="radio"/> N (replaced) <input type="radio"/>			DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	HDPE	1.9L	HNO3	----		9315, 9320, Ra226, Ra228	APP	250
	1	HDPE	1.0L	NONE	----		SM4500, 2540C	APP	250
	1	HDPE	0.25L	HNO3	----		6020, 7470A	APP	250

FIELD SAMPLING CONDITIONS:

1. Well Sign Present: Yes No
2. Well Access: CLEAR
3. Sampling & Purging Equipment Condition: EXCELLENT
4. Site Condition that may Affect Sampling Present? Yes (describe below) No

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SESDPROC-301-R4)

pH: ± 0.1 units Specific Conductance: ± 5% Dissolved Oxygen: 0.2 mg/L or 10% change in saturation (whichever is greater) Turbidity: readings ≤ 10 NTU; ORP: ± 20 mV.

APPENDIX B

Laboratory Analytical Reports

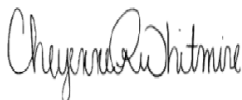
ANALYTICAL REPORT

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

Laboratory Job ID: 400-187364-1
Laboratory Sample Delivery Group: Crisp Co. Power
Client Project/Site: CCR App.III/IV GW Monitoring

For:
Geosyntec Consultants, Inc.
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Attn: Dawit Yifru



Authorized for release by:
5/11/2020 5:39:39 PM

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

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Job ID: 400-187364-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-187364-1

Metals

Method 6020: The method blank for preparation batch 400-487579 and analytical batch 400-487841 contained Arsenic above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The post digestion spike % recovery for Boron, Calcium, Cadmium and Selenium associated with batch 400-487841 was outside of control limits. The associated sample is: (400-187409-A-13-B PDS ^5).

Method 6020: The ICV for 400-488265 passed recovery/accuracy criteria which serves the ICV purpose of verifying the calibration standards. The replicate RSD for the elements were outside of the criteria for standards but within the criteria for field samples. Data has therefore been reported and narrated accordingly. (ICV 400-488265/13)

Method 6020: The continuing calibration verification (CCV) associated with batch 400-488265 recovered above the upper control limit for Cadmium. The samples associated with this CCV were below the Reporting Limits (RL) and above the Method Detection Limits(MDL); therefore, the data have been reported. The associated sample is impacted: MW-D2-20200427 (400-187364-2).

Method 6020: The post digestion spike % recovery for Arsenic, Boron, Barium, Beryllium, Calcium, Cadmium, Chromium, Cobalt, Molybdenum, Lead, Antimony, Thallium, Selenium and Lithium associated with batch 400-488265 was outside of control limits. The associated sample is: (400-187409-A-13-B PDS ^5).

Method 6020: The method blank for preparation batch 400-487579 and analytical batch 400-488265 contained Arsenic above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

General Chemistry

Methods SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: (400-187491-N-14), (400-187491-N-14 MS) and (400-187491-N-14 MSD). Elevated reporting limits (RLs) are provided.

Methods SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 400-488428 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Methods SM 4500 Cl- E: Due to the concentration of chlorides in the the patient sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-187491-N-14 MS) and (400-187491-N-14 MSD)

Detection Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00019	J B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.016		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.14		0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	20		0.050	0.025	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	68		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	2.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	21		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.08				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00027	B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.15		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.13		0.010	0.0036	mg/L	1		6020	Total Recoverable
Cadmium	0.000075	J ^	0.00020	0.000056	mg/L	1		6020	Total Recoverable
Calcium	120		0.050	0.025	mg/L	1		6020	Total Recoverable
Cobalt	0.0010		0.00050	0.00011	mg/L	1		6020	Total Recoverable
Thallium	0.00013		0.00010	0.000024	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	370		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	16		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.80				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010	B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.091		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.23		0.010	0.0036	mg/L	1		6020	Total Recoverable
Cadmium	0.000071	J	0.00020	0.000056	mg/L	1		6020	Total Recoverable
Calcium	100		0.050	0.025	mg/L	1		6020	Total Recoverable
Cobalt	0.00035	J	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lithium	0.00048	J	0.00050	0.00038	mg/L	1		6020	Total Recoverable
Molybdenum	0.0019	J	0.0020	0.00090	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427 (Continued)

Lab Sample ID: 400-187364-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00021	J	0.00025	0.00016	mg/L	1		6020	Total Recoverable
Thallium	0.00012		0.00010	0.000024	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	360		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	33		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.93				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.13		0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	20		0.050	0.025	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	110		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	2.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	20		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.08				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00015	J B	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.0022		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.0042	J	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	31		0.050	0.025	mg/L	1		6020	Total Recoverable
Chromium	0.0013		0.00050	0.00020	mg/L	1		6020	Total Recoverable
Selenium	0.00061		0.00025	0.00016	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	120		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Chloride	2.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.05				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-187364-1	DUP-14-20200427	Water	04/27/20 08:00	04/29/20 09:04	
400-187364-2	MW-D2-20200427	Water	04/27/20 10:30	04/29/20 09:04	
400-187364-3	MW-D3-20200427	Water	04/27/20 12:15	04/29/20 09:04	
400-187364-4	MW-D1-20200427	Water	04/27/20 14:05	04/29/20 09:04	
400-187364-5	MW-U1-20200427	Water	04/27/20 16:30	04/29/20 09:04	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Arsenic	0.00019	J B	0.00025	0.000078	mg/L	-	04/30/20 13:06	05/05/20 19:27	1
Barium	0.016		0.00050	0.00014	mg/L	-	04/30/20 13:06	05/05/20 19:27	1
Beryllium	ND	^	0.00040	0.000034	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Boron	0.14		0.010	0.0036	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Cadmium	ND	^	0.00020	0.000056	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Calcium	20		0.050	0.025	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Chromium	ND	^	0.00050	0.00020	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Cobalt	ND	^	0.00050	0.00011	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Lead	ND	^	0.00025	0.000058	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Lithium	ND	^	0.00050	0.00038	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Molybdenum	ND	^	0.0020	0.00090	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Selenium	ND	^	0.00025	0.00016	mg/L	-	04/30/20 13:06	05/02/20 00:05	1
Thallium	ND	^	0.00010	0.000024	mg/L	-	04/30/20 13:06	05/02/20 00:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L	-	05/11/20 08:04	05/11/20 12:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	5.0	mg/L	-		05/04/20 13:44	1
Chloride	2.2		2.0	1.4	mg/L	-		05/07/20 17:06	1
Fluoride	0.060	J	0.10	0.032	mg/L	-		05/01/20 23:32	1
Sulfate	21		5.0	1.4	mg/L	-		05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.08				SU	-		04/27/20 07:00	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L		04/30/20 13:06	05/02/20 00:08	1
Arsenic	0.00027	B	0.00025	0.000078	mg/L		04/30/20 13:06	05/05/20 19:30	1
Barium	0.15		0.00050	0.00014	mg/L		04/30/20 13:06	05/05/20 19:30	1
Beryllium	ND	^	0.00040	0.000034	mg/L		04/30/20 13:06	05/02/20 00:08	1
Boron	0.13		0.010	0.0036	mg/L		04/30/20 13:06	05/02/20 00:08	1
Cadmium	0.000075	J ^	0.00020	0.000056	mg/L		04/30/20 13:06	05/05/20 19:30	1
Calcium	120		0.050	0.025	mg/L		04/30/20 13:06	05/02/20 00:08	1
Chromium	ND	^	0.00050	0.00020	mg/L		04/30/20 13:06	05/02/20 00:08	1
Cobalt	0.0010		0.00050	0.00011	mg/L		04/30/20 13:06	05/05/20 19:30	1
Lead	ND	^	0.00025	0.000058	mg/L		04/30/20 13:06	05/02/20 00:08	1
Lithium	ND		0.00050	0.00038	mg/L		04/30/20 13:06	05/05/20 19:30	1
Molybdenum	ND	^	0.0020	0.00090	mg/L		04/30/20 13:06	05/02/20 00:08	1
Selenium	ND		0.00025	0.00016	mg/L		04/30/20 13:06	05/02/20 00:08	1
Thallium	0.00013		0.00010	0.000024	mg/L		04/30/20 13:06	05/05/20 19:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		5.0	5.0	mg/L			05/04/20 14:06	1
Chloride	5.1		2.0	1.4	mg/L			05/07/20 17:06	1
Fluoride	0.050	J	0.10	0.032	mg/L			05/01/20 23:35	1
Sulfate	16		5.0	1.4	mg/L			05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.80				SU			04/27/20 09:30	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00050	0.00030	mg/L		04/30/20 13:06	05/05/20 19:34	1
Arsenic	0.0010	B	0.00025	0.000078	mg/L		04/30/20 13:06	05/05/20 19:34	1
Barium	0.091		0.00050	0.00014	mg/L		04/30/20 13:06	05/05/20 19:34	1
Beryllium	ND	^	0.00040	0.000034	mg/L		04/30/20 13:06	05/02/20 00:18	1
Boron	0.23		0.010	0.0036	mg/L		04/30/20 13:06	05/02/20 00:18	1
Cadmium	0.000071	J	0.00020	0.000056	mg/L		04/30/20 13:06	05/02/20 00:18	1
Calcium	100		0.050	0.025	mg/L		04/30/20 13:06	05/02/20 00:18	1
Chromium	ND	^	0.00050	0.00020	mg/L		04/30/20 13:06	05/02/20 00:18	1
Cobalt	0.00035	J	0.00050	0.00011	mg/L		04/30/20 13:06	05/05/20 19:34	1
Lead	ND	^	0.00025	0.000058	mg/L		04/30/20 13:06	05/02/20 00:18	1
Lithium	0.00048	J	0.00050	0.00038	mg/L		04/30/20 13:06	05/05/20 19:34	1
Molybdenum	0.0019	J	0.0020	0.00090	mg/L		04/30/20 13:06	05/05/20 19:34	1
Selenium	0.00021	J	0.00025	0.00016	mg/L		04/30/20 13:06	05/02/20 00:18	1
Thallium	0.00012		0.00010	0.000024	mg/L		04/30/20 13:06	05/05/20 19:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	360		5.0	5.0	mg/L			05/04/20 14:06	1
Chloride	5.1		2.0	1.4	mg/L			05/07/20 17:06	1
Fluoride	0.10		0.10	0.032	mg/L			05/01/20 23:38	1
Sulfate	33		5.0	1.4	mg/L			05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.93				SU			04/27/20 11:15	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L		04/30/20 13:06	05/02/20 00:22	1
Arsenic	ND	^	0.00025	0.000078	mg/L		04/30/20 13:06	05/02/20 00:22	1
Barium	0.015		0.00050	0.00014	mg/L		04/30/20 13:06	05/05/20 19:37	1
Beryllium	ND		0.00040	0.000034	mg/L		04/30/20 13:06	05/05/20 19:37	1
Boron	0.13		0.010	0.0036	mg/L		04/30/20 13:06	05/02/20 00:22	1
Cadmium	ND		0.00020	0.000056	mg/L		04/30/20 13:06	05/02/20 00:22	1
Calcium	20		0.050	0.025	mg/L		04/30/20 13:06	05/02/20 00:22	1
Chromium	ND	^	0.00050	0.00020	mg/L		04/30/20 13:06	05/02/20 00:22	1
Cobalt	ND	^	0.00050	0.00011	mg/L		04/30/20 13:06	05/02/20 00:22	1
Lead	ND	^	0.00025	0.000058	mg/L		04/30/20 13:06	05/02/20 00:22	1
Lithium	ND	^	0.00050	0.00038	mg/L		04/30/20 13:06	05/02/20 00:22	1
Molybdenum	ND	^	0.0020	0.00090	mg/L		04/30/20 13:06	05/02/20 00:22	1
Selenium	ND		0.00025	0.00016	mg/L		04/30/20 13:06	05/02/20 00:22	1
Thallium	ND	^	0.00010	0.000024	mg/L		04/30/20 13:06	05/02/20 00:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	5.0	mg/L			05/04/20 14:06	1
Chloride	2.5		2.0	1.4	mg/L			05/07/20 17:06	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/01/20 23:40	1
Sulfate	20		5.0	1.4	mg/L			05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.08				SU			04/27/20 13:05	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^	0.00050	0.00030	mg/L		04/30/20 13:06	05/02/20 00:25	1
Arsenic	0.00015	J B	0.00025	0.000078	mg/L		04/30/20 13:06	05/05/20 19:41	1
Barium	0.0022		0.00050	0.00014	mg/L		04/30/20 13:06	05/05/20 19:41	1
Beryllium	ND	^	0.00040	0.000034	mg/L		04/30/20 13:06	05/02/20 00:25	1
Boron	0.0042	J	0.010	0.0036	mg/L		04/30/20 13:06	05/02/20 00:25	1
Cadmium	ND		0.00020	0.000056	mg/L		04/30/20 13:06	05/02/20 00:25	1
Calcium	31		0.050	0.025	mg/L		04/30/20 13:06	05/02/20 00:25	1
Chromium	0.0013		0.00050	0.00020	mg/L		04/30/20 13:06	05/05/20 19:41	1
Cobalt	ND	^	0.00050	0.00011	mg/L		04/30/20 13:06	05/02/20 00:25	1
Lead	ND	^	0.00025	0.000058	mg/L		04/30/20 13:06	05/02/20 00:25	1
Lithium	ND	^	0.00050	0.00038	mg/L		04/30/20 13:06	05/02/20 00:25	1
Molybdenum	ND	^	0.0020	0.00090	mg/L		04/30/20 13:06	05/02/20 00:25	1
Selenium	0.00061		0.00025	0.00016	mg/L		04/30/20 13:06	05/02/20 00:25	1
Thallium	ND	^	0.00010	0.000024	mg/L		04/30/20 13:06	05/02/20 00:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	5.0	mg/L			05/04/20 14:06	1
Chloride	2.4		2.0	1.4	mg/L			05/07/20 17:06	1
Fluoride	0.050	J	0.10	0.032	mg/L			05/01/20 23:44	1
Sulfate	2.6	J	5.0	1.4	mg/L			05/04/20 11:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.05				SU			04/27/20 15:30	1

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:05	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:27	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487912	05/04/20 13:44	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:32	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 07:00	EHS	TAL PEN

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:08	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:30	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:35	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 09:30	EHS	TAL PEN

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:18	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:34	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:38	MAF	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 11:15	EHS	TAL PEN

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:22	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:37	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:40	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 13:05	EHS	TAL PEN

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	487841	05/02/20 00:25	AW	TAL PEN
Total Recoverable	Prep	3005A			487579	04/30/20 13:06	NET	TAL PEN
Total Recoverable	Analysis	6020		1	488265	05/05/20 19:41	AW	TAL PEN
Total/NA	Prep	7470A			488128	05/11/20 08:04	JAP	TAL PEN
Total/NA	Analysis	7470A		1	488722	05/11/20 12:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	487917	05/04/20 14:06	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	488428	05/07/20 17:06	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	487777	05/01/20 23:44	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	487903	05/04/20 11:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	487440	04/27/20 15:30	EHS	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Metals

Prep Batch: 487579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total Recoverable	Water	3005A	
400-187364-2	MW-D2-20200427	Total Recoverable	Water	3005A	
400-187364-3	MW-D3-20200427	Total Recoverable	Water	3005A	
400-187364-4	MW-D1-20200427	Total Recoverable	Water	3005A	
400-187364-5	MW-U1-20200427	Total Recoverable	Water	3005A	
MB 400-487579/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-487579/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-187409-A-13-C MS	Matrix Spike	Total Recoverable	Water	3005A	
400-187409-A-13-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 487841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total Recoverable	Water	6020	487579
400-187364-2	MW-D2-20200427	Total Recoverable	Water	6020	487579
400-187364-3	MW-D3-20200427	Total Recoverable	Water	6020	487579
400-187364-4	MW-D1-20200427	Total Recoverable	Water	6020	487579
400-187364-5	MW-U1-20200427	Total Recoverable	Water	6020	487579
MB 400-487579/1-A	Method Blank	Total Recoverable	Water	6020	487579
LCS 400-487579/2-A	Lab Control Sample	Total Recoverable	Water	6020	487579
400-187409-A-13-C MS	Matrix Spike	Total Recoverable	Water	6020	487579
400-187409-A-13-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	487579

Prep Batch: 488128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	7470A	
400-187364-2	MW-D2-20200427	Total/NA	Water	7470A	
400-187364-3	MW-D3-20200427	Total/NA	Water	7470A	
400-187364-4	MW-D1-20200427	Total/NA	Water	7470A	
400-187364-5	MW-U1-20200427	Total/NA	Water	7470A	
MB 400-488128/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-488128/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-187364-2 MS	MW-D2-20200427	Total/NA	Water	7470A	
400-187364-2 MSD	MW-D2-20200427	Total/NA	Water	7470A	

Analysis Batch: 488265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total Recoverable	Water	6020	487579
400-187364-2	MW-D2-20200427	Total Recoverable	Water	6020	487579
400-187364-3	MW-D3-20200427	Total Recoverable	Water	6020	487579
400-187364-4	MW-D1-20200427	Total Recoverable	Water	6020	487579
400-187364-5	MW-U1-20200427	Total Recoverable	Water	6020	487579
MB 400-487579/1-A	Method Blank	Total Recoverable	Water	6020	487579
400-187409-A-13-C MS	Matrix Spike	Total Recoverable	Water	6020	487579
400-187409-A-13-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	487579

Analysis Batch: 488722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	7470A	488128
400-187364-2	MW-D2-20200427	Total/NA	Water	7470A	488128
400-187364-3	MW-D3-20200427	Total/NA	Water	7470A	488128
400-187364-4	MW-D1-20200427	Total/NA	Water	7470A	488128

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Metals (Continued)

Analysis Batch: 488722 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-5	MW-U1-20200427	Total/NA	Water	7470A	488128
MB 400-488128/14-A	Method Blank	Total/NA	Water	7470A	488128
LCS 400-488128/15-A	Lab Control Sample	Total/NA	Water	7470A	488128
400-187364-2 MS	MW-D2-20200427	Total/NA	Water	7470A	488128
400-187364-2 MSD	MW-D2-20200427	Total/NA	Water	7470A	488128

General Chemistry

Analysis Batch: 487777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 4500 F C	
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 4500 F C	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 4500 F C	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 4500 F C	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 4500 F C	
MB 400-487777/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-487777/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-187257-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 487903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 4500 SO4 E	
MB 400-487903/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-487903/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-487903/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-187364-1 MS	DUP-14-20200427	Total/NA	Water	SM 4500 SO4 E	
400-187364-1 MSD	DUP-14-20200427	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 487912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 2540C	
MB 400-487912/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-487912/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-187321-D-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 487917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 2540C	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 2540C	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 2540C	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 2540C	
MB 400-487917/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-487917/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-187364-3 DU	MW-D3-20200427	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

General Chemistry

Analysis Batch: 488428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-2	MW-D2-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-3	MW-D3-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-4	MW-D1-20200427	Total/NA	Water	SM 4500 Cl- E	
400-187364-5	MW-U1-20200427	Total/NA	Water	SM 4500 Cl- E	
MB 400-488428/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-488428/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-488428/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-187491-N-14 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-187491-N-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 487440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	Field Sampling	
400-187364-2	MW-D2-20200427	Total/NA	Water	Field Sampling	
400-187364-3	MW-D3-20200427	Total/NA	Water	Field Sampling	
400-187364-4	MW-D1-20200427	Total/NA	Water	Field Sampling	
400-187364-5	MW-U1-20200427	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-487579/1-A
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00050	0.00030	mg/L		04/30/20 13:06	05/01/20 16:12	1
Barium	ND		0.00050	0.00014	mg/L		04/30/20 13:06	05/01/20 16:12	1
Beryllium	ND		0.00040	0.000034	mg/L		04/30/20 13:06	05/01/20 16:12	1
Boron	ND		0.010	0.0036	mg/L		04/30/20 13:06	05/01/20 16:12	1
Cadmium	ND		0.00020	0.000056	mg/L		04/30/20 13:06	05/01/20 16:12	1
Calcium	ND		0.050	0.025	mg/L		04/30/20 13:06	05/01/20 16:12	1
Chromium	ND		0.00050	0.00020	mg/L		04/30/20 13:06	05/01/20 16:12	1
Cobalt	ND		0.00050	0.00011	mg/L		04/30/20 13:06	05/01/20 16:12	1
Lead	ND		0.00025	0.000058	mg/L		04/30/20 13:06	05/01/20 16:12	1
Lithium	ND		0.00050	0.00038	mg/L		04/30/20 13:06	05/01/20 16:12	1
Molybdenum	ND		0.0020	0.00090	mg/L		04/30/20 13:06	05/01/20 16:12	1
Selenium	ND		0.00025	0.00016	mg/L		04/30/20 13:06	05/01/20 16:12	1
Thallium	ND		0.00010	0.000024	mg/L		04/30/20 13:06	05/01/20 16:12	1

Lab Sample ID: MB 400-487579/1-A
Matrix: Water
Analysis Batch: 488265

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0000790	J	0.00025	0.000078	mg/L		04/30/20 13:06	05/05/20 13:00	1

Lab Sample ID: LCS 400-487579/2-A
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0524		mg/L		105	80 - 120
Arsenic	0.0500	0.0493		mg/L		99	80 - 120
Barium	0.0500	0.0476		mg/L		95	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	0.100	0.0910		mg/L		91	80 - 120
Cadmium	0.0500	0.0509		mg/L		102	80 - 120
Calcium	5.00	4.60		mg/L		92	80 - 120
Chromium	0.0500	0.0485		mg/L		97	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0491		mg/L		98	80 - 120
Molybdenum	0.0500	0.0509		mg/L		102	80 - 120
Selenium	0.0500	0.0480		mg/L		96	80 - 120
Thallium	0.0100	0.00998		mg/L		100	80 - 120

Lab Sample ID: 400-187409-A-13-C MS
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.064		0.100	0.150		mg/L		86	75 - 125
Cadmium	ND		0.0500	0.0498		mg/L		100	75 - 125
Calcium	140		5.00	144	4	mg/L		79	75 - 125

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-187409-A-13-C MS
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	ND		0.0500	0.0447		mg/L		89	75 - 125

Lab Sample ID: 400-187409-A-13-C MS
Matrix: Water
Analysis Batch: 488265

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		0.0500	0.0561		mg/L		112	75 - 125
Arsenic	0.020	B	0.0500	0.0691		mg/L		97	75 - 125
Barium	0.81		0.0500	0.867	4	mg/L		119	75 - 125
Beryllium	ND		0.0500	0.0462		mg/L		92	75 - 125
Chromium	ND		0.0500	0.0474		mg/L		95	75 - 125
Cobalt	0.0010		0.0500	0.0485		mg/L		95	75 - 125
Lead	ND		0.0500	0.0486		mg/L		97	75 - 125
Lithium	0.046		0.0500	0.0912		mg/L		91	75 - 125
Molybdenum	0.0094		0.0500	0.0613		mg/L		104	75 - 125
Thallium	ND		0.0100	0.00965		mg/L		97	75 - 125

Lab Sample ID: 400-187409-A-13-D MSD
Matrix: Water
Analysis Batch: 487841

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Boron	0.064		0.100	0.148		mg/L		84	75 - 125	2	20
Cadmium	ND		0.0500	0.0484		mg/L		97	75 - 125	3	20
Calcium	140		5.00	144	4	mg/L		83	75 - 125	0	20
Selenium	ND		0.0500	0.0439		mg/L		88	75 - 125	2	20

Lab Sample ID: 400-187409-A-13-D MSD
Matrix: Water
Analysis Batch: 488265

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 487579

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	ND		0.0500	0.0538		mg/L		108	75 - 125	4	20
Arsenic	0.020	B	0.0500	0.0660		mg/L		91	75 - 125	5	20
Barium	0.81		0.0500	0.853	4	mg/L		90	75 - 125	2	20
Beryllium	ND		0.0500	0.0453		mg/L		91	75 - 125	2	20
Chromium	ND		0.0500	0.0460		mg/L		92	75 - 125	3	20
Cobalt	0.0010		0.0500	0.0463		mg/L		91	75 - 125	5	20
Lead	ND		0.0500	0.0477		mg/L		95	75 - 125	2	20
Lithium	0.046		0.0500	0.0913		mg/L		91	75 - 125	0	20
Molybdenum	0.0094		0.0500	0.0593		mg/L		100	75 - 125	3	20
Thallium	ND		0.0100	0.00955		mg/L		96	75 - 125	1	20

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-488128/14-A
Matrix: Water
Analysis Batch: 488722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 488128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000070	mg/L		05/11/20 08:04	05/11/20 12:20	1

Lab Sample ID: LCS 400-488128/15-A
Matrix: Water
Analysis Batch: 488722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 488128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000991		mg/L		98	80 - 120

Lab Sample ID: 400-187364-2 MS
Matrix: Water
Analysis Batch: 488722

Client Sample ID: MW-D2-20200427
Prep Type: Total/NA
Prep Batch: 488128

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND		0.00201	0.00189		mg/L		94	80 - 120

Lab Sample ID: 400-187364-2 MSD
Matrix: Water
Analysis Batch: 488722

Client Sample ID: MW-D2-20200427
Prep Type: Total/NA
Prep Batch: 488128

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	ND		0.00201	0.00178		mg/L		88	80 - 120	6	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-487912/1
Matrix: Water
Analysis Batch: 487912

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		5.0	5.0	mg/L			05/04/20 13:44	1

Lab Sample ID: LCS 400-487912/2
Matrix: Water
Analysis Batch: 487912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	348		mg/L		119	78 - 122

Lab Sample ID: 400-187321-D-6 DU
Matrix: Water
Analysis Batch: 487912

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	130		124		mg/L		3	5

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-487917/1
Matrix: Water
Analysis Batch: 487917

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		5.0	5.0	mg/L			05/04/20 14:06	1

Lab Sample ID: LCS 400-487917/2
Matrix: Water
Analysis Batch: 487917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	338		mg/L		115	78 - 122

Lab Sample ID: 400-187364-3 DU
Matrix: Water
Analysis Batch: 487917

Client Sample ID: MW-D3-20200427
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	360		378		mg/L		4	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-488428/6
Matrix: Water
Analysis Batch: 488428

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	1.4	mg/L			05/07/20 16:56	1

Lab Sample ID: LCS 400-488428/7
Matrix: Water
Analysis Batch: 488428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.8		mg/L		109	90 - 110

Lab Sample ID: MRL 400-488428/3
Matrix: Water
Analysis Batch: 488428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.04		mg/L		102	50 - 150

Lab Sample ID: 400-187491-N-14 MS
Matrix: Water
Analysis Batch: 488428

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	150		10.0	152	4	mg/L		49	73 - 120

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-187491-N-14 MSD
Matrix: Water
Analysis Batch: 488428

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	150		10.0	152	4	mg/L		47	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-487777/3
Matrix: Water
Analysis Batch: 487777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10	0.032	mg/L			05/01/20 22:23	1

Lab Sample ID: LCS 400-487777/4
Matrix: Water
Analysis Batch: 487777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.93		mg/L		98	90 - 110

Lab Sample ID: 400-187257-B-1 MSD
Matrix: Water
Analysis Batch: 487777

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.43		1.00	1.38		mg/L		95	75 - 125	0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-487903/6
Matrix: Water
Analysis Batch: 487903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.4	mg/L			05/04/20 11:20	1

Lab Sample ID: LCS 400-487903/7
Matrix: Water
Analysis Batch: 487903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.0		mg/L		100	90 - 110

Lab Sample ID: MRL 400-487903/3
Matrix: Water
Analysis Batch: 487903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.89		mg/L		118	50 - 150

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
 SDG: Crisp Co. Power

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-187364-1 MS
Matrix: Water
Analysis Batch: 487903

Client Sample ID: DUP-14-20200427
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	21		10.0	31.7		mg/L		112	77 - 128


Lab Sample ID: 400-187364-1 MSD
Matrix: Water
Analysis Batch: 487903

Client Sample ID: DUP-14-20200427
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	21		10.0	31.1		mg/L		105	77 - 128	2	5



Chain of Custody Record

Client Information Company: Geosyntec Consultants, Inc. Address: 1255 Roberts Blvd, NW Suite 200 City: Kennesaw State: GA, Zip: 30144 Phone: 678-202-9500 Email: dyifru@geosyntec.com		Sampler: STEPHEN W. RANDALL Lab PM: Whitmore, Cheyenne R Phone: 478-328-6181 E-Mail: cheyenne.whitmore@testamericainc.com		Carrier Tracking No(s): 1516 9323 2535 COC No: 400-93295-29334.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): STANDARD PO #: Purchase Order not required WO #:		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPCC SM4500_Cl_E - Chloride 6020_Sb,As,Ba,Be,Ca,Cd,Cr,Cu,Li,Pb,Tl,Se,Mo 7470A - Mercury 2540C - Total Dissolved Solids 4500_F_C - Fluoride SM4500_SO4_E - Sulfate Field Sampling - Field pH 400-187364 COC 			
Project #: 40007960 SOW#:		Preservation Codes: M - Hexane N - None O - ASNO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify) Other:			
Sample Identification Dup-14-20200427 MW-D2-20200427 MW-D3-20200427 MW-D1-20200427 MW-U1-20200427		Sample Date 4/27/20 4/27/20 4/27/20 4/27/20 4/27/20		Sample Time 0800 1030 1215 1405 1630	
Sample Type (C=Comp, G=grab) G G G G G		Matrix (W=water, S=solid, O=soil, B=BI, T=tissue, A=air) Water Water Water Water Water Water		Field Filtered Sample (Yes or No) N N N N N N	
Perform MS/MSD (Yes or No) N N N N N		Field Sampling - Field pH N N N N N		Total Number of Containers 2 PH: 6.08 2 PH: 4.90 2 PH: 6.93 2 PH: 6.08 2 PH: 6.05	
Special Instructions/Note: LAST ITEM		Special Instructions/Note: 2 PH: 6.08 2 PH: 4.90 2 PH: 6.93 2 PH: 6.08 2 PH: 6.05			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) LEVEL II					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements: Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Stephen W. Randall Date/Time: 4/28/20 1700 Company: GEOSYNTEL Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 0.02 1R7 / 22.50 2019					

Chain of Custody Record

Client Information Client Contact: STEPHEN W. RANDALL Phone: 478-328-6181 E-Mail: cheyenne.whitmire@testamericainc.com		Lab PM: Whitmire, Cheyenne R Carrier Tracking No(s): 1516 9323 2524		COC No: 400-93295-29334.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): STANDARD		Analysis Requested			
PO #: 678-202-9500 Purchase Order not required WO #:		Field Filtered Sample (Yes or No)			
Email: dyifru@geosyntec.com Project Name: CCR App.III/IV GW Monitoring SOW#:		Perform MS/MSD (Yee or No)			
Site: CRISP Co. POWER		9315_Ra226, 9320_Ra228, Ra226Ra228_GFP			
		SM4500_Cl_E - Chloride			
		6020 - Sb,As,B, Ba,Be,Ca,Cd,Cr,Co, Li,Pb, Ti,Se,Mo			
		7470A - Mercury			
		2540C - Total Dissolved Solids			
		4500_F_C - Fluoride			
		SM4500_S04_E - Sulfate			
		Field Sampling - Field pH			
		Total Number of Containers			
		Special Instructions/Note:			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)
DUP-14-20200427		4/27/20	0800	G	Water
MW-D2-20200427		4/27/20	1030	G	Water
MW-D3-20200427		4/27/20	1215	G	Water
MW-D1-20200427		4/27/20	1405	G	Water
MW-U1-20200427		4/27/20	1630	G	Water
Relinquished by:		LAST ITEM			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify) LEVEL II					
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: Stephen W. Randall		Date/Time: 4/28/20 1400		Company: Geosyntec	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 22.5 °C 1R7			



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-187364-1
SDG Number: Crisp Co. Power

Login Number: 187364

List Number: 1

Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 22.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-1
SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	06-30-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

ANALYTICAL REPORT

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

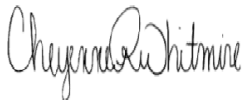
Laboratory Job ID: 400-187364-2

Laboratory Sample Delivery Group: Crisp Co. Power
Client Project/Site: CCR App.III/IV GW Monitoring

For:

Geosyntec Consultants, Inc.
1255 Roberts Blvd, NW
Suite 200
Kennesaw, Georgia 30144

Attn: Dawit Yifru



Authorized for release by:
6/2/2020 2:59:14 PM

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

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

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



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Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Job ID: 400-187364-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-187364-2

RAD

Methods 9315: Radium-226 Prep Batch 160-469975. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4), MW-U1-20200427 (400-187364-5), (LCS 160-469975/1-A), (LCSD 160-469975/2-A) and (MB 160-469975/23-A)

Methods 9320: Ra-228 Prep Batch 160-469977. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4), MW-U1-20200427 (400-187364-5), (LCS 160-469977/1-A), (LCSD 160-469977/2-A) and (MB 160-469977/23-A)

Method PrecSep_0: Radium 228 Prep Batch 160-469977. Insufficient sample volume was available to perform a sample duplicate for the following samples: DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4) and MW-U1-20200427 (400-187364-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-469975. Insufficient sample volume was available to perform a sample duplicate for the following samples: DUP-14-20200427 (400-187364-1), MW-D2-20200427 (400-187364-2), MW-D3-20200427 (400-187364-3), MW-D1-20200427 (400-187364-4) and MW-U1-20200427 (400-187364-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

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

Protocol References:

None = None

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

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

Laboratory References:

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

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-187364-1	DUP-14-20200427	Water	04/27/20 08:00	04/29/20 09:04	
400-187364-2	MW-D2-20200427	Water	04/27/20 10:30	04/29/20 09:04	
400-187364-3	MW-D3-20200427	Water	04/27/20 12:15	04/29/20 09:04	
400-187364-4	MW-D1-20200427	Water	04/27/20 14:05	04/29/20 09:04	
400-187364-5	MW-U1-20200427	Water	04/27/20 16:30	04/29/20 09:04	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.195		0.105	0.107	1.00	0.138	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.0		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0789	U	0.203	0.203	1.00	0.350	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.0		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	95.7		40 - 110					05/11/20 07:10	05/26/20 11:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.274	U	0.229	0.229	5.00	0.350	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108	U	0.0867	0.0872	1.00	0.127	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0765	U	0.193	0.193	1.00	0.336	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	93.1		40 - 110					05/11/20 07:10	05/26/20 11:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.184	U	0.212	0.212	5.00	0.336	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0888	U	0.0849	0.0853	1.00	0.132	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.237	U	0.224	0.225	1.00	0.361	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	94.2		40 - 110					05/11/20 07:10	05/26/20 11:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.326	U	0.240	0.241	5.00	0.361	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.0946	0.0950	1.00	0.147	pCi/L	05/11/20 06:30	06/02/20 04:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					05/11/20 06:30	06/02/20 04:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.301	U	0.244	0.245	1.00	0.387	pCi/L	05/11/20 07:10	05/26/20 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					05/11/20 07:10	05/26/20 11:47	1
Y Carrier	96.1		40 - 110					05/11/20 07:10	05/26/20 11:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.401		0.262	0.263	5.00	0.387	pCi/L		06/02/20 08:54	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0269	U	0.0584	0.0584	1.00	0.134	pCi/L	05/11/20 06:30	06/02/20 06:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		40 - 110					05/11/20 06:30	06/02/20 06:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.325	U	0.236	0.238	1.00	0.368	pCi/L	05/11/20 07:10	05/26/20 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		40 - 110					05/11/20 07:10	05/26/20 11:48	1
Y Carrier	91.2		40 - 110					05/11/20 07:10	05/26/20 11:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.298	U	0.243	0.245	5.00	0.368	pCi/L		06/02/20 08:54	1

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

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

Lab Chronicle

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Client Sample ID: DUP-14-20200427

Lab Sample ID: 400-187364-1

Date Collected: 04/27/20 08:00

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Client Sample ID: MW-D2-20200427

Lab Sample ID: 400-187364-2

Date Collected: 04/27/20 10:30

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Client Sample ID: MW-D3-20200427

Lab Sample ID: 400-187364-3

Date Collected: 04/27/20 12:15

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Client Sample ID: MW-D1-20200427

Lab Sample ID: 400-187364-4

Date Collected: 04/27/20 14:05

Matrix: Water

Date Received: 04/29/20 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 04:34	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471273	05/26/20 11:47	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Client Sample ID: MW-U1-20200427

Lab Sample ID: 400-187364-5

Date Collected: 04/27/20 16:30

Matrix: Water

Date Received: 04/29/20 09:04

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			469975	05/11/20 06:30	RBR	TAL SL
Total/NA	Analysis	9315		1	471668	06/02/20 06:22	KLS	TAL SL
Total/NA	Prep	PrecSep_0			469977	05/11/20 07:10	RBR	TAL SL
Total/NA	Analysis	9320		1	471275	05/26/20 11:48	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	471673	06/02/20 08:54	SMP	TAL SL

Laboratory References:

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



QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Rad

Prep Batch: 469975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	PrecSep-21	
400-187364-2	MW-D2-20200427	Total/NA	Water	PrecSep-21	
400-187364-3	MW-D3-20200427	Total/NA	Water	PrecSep-21	
400-187364-4	MW-D1-20200427	Total/NA	Water	PrecSep-21	
400-187364-5	MW-U1-20200427	Total/NA	Water	PrecSep-21	
MB 160-469975/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-469975/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-469975/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 469977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-187364-1	DUP-14-20200427	Total/NA	Water	PrecSep_0	
400-187364-2	MW-D2-20200427	Total/NA	Water	PrecSep_0	
400-187364-3	MW-D3-20200427	Total/NA	Water	PrecSep_0	
400-187364-4	MW-D1-20200427	Total/NA	Water	PrecSep_0	
400-187364-5	MW-U1-20200427	Total/NA	Water	PrecSep_0	
MB 160-469977/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-469977/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-469977/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-469975/23-A
Matrix: Water
Analysis Batch: 471668

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469975

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01029	U	0.0744	0.0744	1.00	0.152	pCi/L	05/11/20 06:30	06/02/20 06:22	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	91.3		40 - 110			05/11/20 06:30	06/02/20 06:22	1		

Lab Sample ID: LCS 160-469975/1-A
Matrix: Water
Analysis Batch: 471668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469975

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.662		1.03	1.00	0.121	pCi/L	85	75 - 125
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	94.3		40 - 110						

Lab Sample ID: LCSD 160-469975/2-A
Matrix: Water
Analysis Batch: 471668

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 469975

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	9.454		1.02	1.00	0.124	pCi/L	83	75 - 125	0.10	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier									
Ba Carrier	87.0		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-469977/23-A
Matrix: Water
Analysis Batch: 471275

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469977

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.07159	U	0.209	0.209	1.00	0.384	pCi/L	05/11/20 07:10	05/26/20 11:49	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	91.3		40 - 110			05/11/20 07:10	05/26/20 11:49	1		
Y Carrier	96.8		40 - 110			05/11/20 07:10	05/26/20 11:49	1		

QC Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-469977/1-A
Matrix: Water
Analysis Batch: 471273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469977

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.81	8.061		0.949	1.00	0.365	pCi/L	92	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.3		40 - 110
Y Carrier	91.2		40 - 110

Lab Sample ID: LCSD 160-469977/2-A
Matrix: Water
Analysis Batch: 471273

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 469977

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	8.81	7.920		0.976	1.00	0.425	pCi/L	90	75 - 125	0.07	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	87.0		40 - 110
Y Carrier	83.0		40 - 110

Chain of Custody Record

Client Information		Company: Geosyntec Consultants, Inc.		Address: 1255 Roberts Blvd, NW Suite 200		City: Kennesaw		State/Zip: GA, 30144		Phone: 678-202-9500		Email: dyifru@geosyntec.com		Project #: 40007960		Site: CRISP CO POWER	
Sampler: STEPHEN W. RANDALL		Lab PM: Whitmore, Cheyenne R		Carrier Tracking No(s): 1516 9323 2535		COC No: 400-93295-29334.1		Page: Page 1 of 1		Job #:		Preservation Codes:		M - Hexane		N - None	
Client Contact: Dawit Yifru		E-Mail: cheyenne.whitmore@testamericainc.com		Analysis Requested		7470A - Mercury		2540C - Total Dissolved Solids		4500_F_C - Fluoride		SM4500_SO4_E - Sulfate		Field Sampling - Field pH		400-187364 COC	
Due Date Requested:		TAT Requested (days):		PO #:		Purchase Order not required		WO #:		Project #:		SSOW#:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)		Preservation Code:		Field MS/MSD (Yes or No)		9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC		SM4500_Cl_E - Chloride	
Dup-14-20200427		4/27/20		0800		G		Water		N		N		N		N	
MW-D2-20200427		4/27/20		1030		G		Water		N		N		N		N	
MW-D3-20200427		4/27/20		1215		G		Water		N		N		N		N	
MW-D1-20200427		4/27/20		1405		G		Water		N		N		N		N	
MW-U1-20200427		4/27/20		1630		G		Water		N		N		N		N	
								Water									
								LAST ITEM									
Possible Hazard Identification		Non-Hazard <input type="checkbox"/>		Flammable <input type="checkbox"/>		Skin Irritant <input type="checkbox"/>		Poison B <input type="checkbox"/>		Unknown <input type="checkbox"/>		Radiological <input type="checkbox"/>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>	
Deliverable Requested: I, II, III, IV, Other (specify)		LEVEL II		Empty Kit Relinquished by:		Date:		Time:		Special Instructions/QC Requirements:		Disposal By Lab <input type="checkbox"/>		Archive For _____ Months			
Relinquished by: Stephen W. Randall		Date/Time: 4/28/20		Date/Time: 1700		Company: Geosyntec		Date/Time: 4/28/20		Date/Time: 9:09		Date/Time: 4-29-20		Date/Time: 9:09		Company: Company	
Relinquished by:		Date/Time:		Date/Time:		Company:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.02 1R7 / 22.50 2R7													

Chain of Custody Record

Client Information Client Contact: STEPHEN W. RANDALL Phone: 478-328-6181 E-Mail: cheyenne.whitmire@testamericainc.com		Lab PM: Whitmire, Cheyenne R Carrier Tracking No(s): 1516 9323 2524		COC No: 400-93295-29334.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): STANDARD		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc SM4500_Cl_E - Chloride 6020 - Sb,As,Ba,Be,Ca,Cd,Cr,Cu,LI,Pb,Tl,Se,Mo 7470A - Mercury 2540C - Total Dissolved Solids 4500_F,C - Fluoride SM4500_SO4_E - Sulfate Field Sampling - Field pH		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2OHS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
PO #: 678-202-9500 Purchase Order not required Project #: 40007960 SOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> X Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers		Special Instructions/Note: PH: 6.08 PH: 4.80 PH: 6.93 PH: 6.08 PH: 6.05	
Sample Identification Dupe 14-20200427 MW-D2-20200427 MW-D3-20200427 MW-D1-20200427 MW-U1-20200427		Sample Date 4/27/20 4/27/20 4/27/20 4/27/20 4/27/20		Sample Time 0800 1030 1215 1405 1630	
Sample Type (C=Comp, G=grab) G G G G G		Matrix (Water, Solid, Other) Water Water Water Water Water Water		Preservation Code: G G G G G	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify) LEVEL II		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Stephen W. Randall Date: 4/28/20		Relinquished by: Stephen W. Randall Date/Time: 4/28/20 1400		Method of Shipment:	
Relinquished by: Stephen W. Randall Date/Time:		Relinquished by: Stephen W. Randall Date/Time:		Relinquished by: Stephen W. Randall Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 22.5 °C 1R7	



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-187364-2
SDG Number: Crisp Co. Power

Login Number: 187364
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 22.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-187364-2
SDG Number: Crisp Co. Power

Login Number: 187364

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 04/30/20 07:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	06-30-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-21
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: CCR App.III/IV GW Monitoring

Job ID: 400-187364-2
 SDG: Crisp Co. Power

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

APPENDIX C

Statistical Calculations and Time-series Graphs

Summary Report

Constituent: Antimony Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
ND/Trace = 44
Wells = 4
Minimum Value = 0.0005
Maximum Value = 0.0025
Mean Value = 0.002318
Median Value = 0.0025
Standard Deviation = 0.0005816
Coefficient of Variation = 0.2509
Skewness = -2.846

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-D2	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-D3	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846
MW-U1 (bg)	11	11	0.0005	0.0025	0.002318	0.0025	0.000603	0.2601	-2.846

Summary Report

Constituent: Antimony (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025 (**)	<0.0025 (F1)	<0.0025 (**)	<0.0025 (**)
3/27/2017	<0.0025	<0.0025	<0.0025	<0.0025
4/24/2017	<0.0025	<0.0025	<0.0025	<0.0025
5/22/2017	<0.0025	<0.0025	<0.0025	<0.0025
6/19/2017	<0.0025	<0.0025	<0.0025	<0.0025
7/17/2017	<0.0025	<0.0025	<0.0025	<0.0025
8/14/2017	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.0025	<0.0025	<0.0025	<0.0025
4/27/2020	<0.0005 (^)	<0.0005 (^)	<0.0005	<0.0005 (^)

Summary Report

Constituent: Arsenic Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 53
 ND/Trace = 35
 Wells = 4
 Minimum Value = 0.00015
 Maximum Value = 0.0016
 Mean Value = 0.001092
 Median Value = 0.0013
 Standard Deviation = 0.0003611
 Coefficient of Variation = 0.3307
 Skewness = -1.195

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	13	0.00025	0.0013	0.001219	0.0013	0.0002912	0.2389	-3.175
MW-D2	13	9	0.00027	0.0013	0.001095	0.0013	0.0003569	0.326	-1.405
MW-D3	14	2	0.00048	0.0016	0.0009207	0.000855	0.0003773	0.4098	0.4857
MW-U1 (bg)	13	11	0.00015	0.0013	0.001147	0.0013	0.000379	0.3304	-2.033

Summary Report

Constituent: Arsenic (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013	<0.0013	0.0015	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	0.00083 (J)	0.00052 (J)	<0.0013
5/22/2017	<0.0013	0.00048 (J)	0.00092 (J)	<0.0013
6/19/2017	<0.0013	<0.0013	0.00097 (J)	<0.0013
7/17/2017	<0.0013	0.00095 (J)	0.0016	0.00046 (J)
8/14/2017	<0.0013	<0.0013	0.00048 (J)	<0.0013
9/13/2017	<0.0013	<0.0013	0.00079 (J)	<0.0013
3/22/2018	<0.0013	<0.0013	0.0006 (J)	<0.0013
6/5/2018	<0.0013	<0.0013	0.00067 (J)	<0.0013
11/29/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	0.00048 (J)	<0.0013
10/23/2019			0.00076 (J)	
4/27/2020	<0.00025 (^)	0.00027 (B)	0.001 (B)	0.00015 (JB)

Summary Report

Constituent: Barium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
ND/Trace = 0
Wells = 4
Minimum Value = 0.0018
Maximum Value = 0.23
Mean Value = 0.08148
Median Value = 0.057
Standard Deviation = 0.07951
Coefficient of Variation = 0.9758
Skewness = 0.3362

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	0	0.0095	0.027	0.01309	0.012	0.004441	0.3392	2.318
MW-D2	14	0	0.087	0.19	0.1391	0.145	0.02601	0.187	-0.1921
MW-D3	14	0	0.091	0.23	0.1715	0.18	0.04421	0.2578	-0.4854
MW-U1 (bg)	14	0	0.0018	0.0034	0.002264	0.0022	0.0004069	0.1797	1.52

Summary Report

Constituent: Barium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.011	0.087	0.22	0.0034
3/27/2017	0.0099	0.11	0.23	0.0026
4/24/2017	0.011	0.15	0.2	0.0022 (J)
5/22/2017	0.013	0.12	0.21	0.002 (J)
6/19/2017	0.012	0.11	0.21	0.0021 (J)
7/17/2017	0.012	0.16	0.2	0.0025
8/14/2017	0.014	0.13	0.18	0.002 (J)
9/13/2017	0.014	0.14	0.18	0.0023 (J)
3/22/2018	0.0095	0.15	0.16	0.0021 (J)
6/5/2018	0.01	0.19	0.15	0.0025
11/29/2018	0.0099	0.15	0.14	0.0018 (J)
4/29/2019	0.015	0.16	0.1	0.0018 (J)
10/23/2019	0.027	0.14	0.13	0.0022 (J)
4/27/2020	0.015	0.15	0.091	0.0022

Summary Report

Constituent: Beryllium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
ND/Trace = 44
Wells = 4
Minimum Value = 0.0004
Maximum Value = 0.0025
Mean Value = 0.0019
Median Value = 0.002
Standard Deviation = 0.0005012
Coefficient of Variation = 0.2638
Skewness = -2.355

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-D2	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-D3	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355
MW-U1 (bg)	11	11	0.0004	0.0025	0.0019	0.002	0.0005196	0.2735	-2.355

Summary Report

Constituent: Beryllium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.002	<0.002	<0.002	<0.002
3/27/2017	<0.002	<0.002	<0.002	<0.002
4/24/2017	<0.002	<0.002	<0.002	<0.002
5/22/2017	<0.002	<0.002	<0.002	<0.002
6/19/2017	<0.002	<0.002	<0.002	<0.002
7/17/2017	<0.002	<0.002	<0.002	<0.002
8/14/2017	<0.002	<0.002	<0.002	<0.002
9/13/2017	<0.002	<0.002	<0.002	<0.002
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.002	<0.002	<0.002	<0.002
4/27/2020	<0.0004	<0.0004 (*)	<0.0004 (*)	<0.0004 (*)

Summary Report

Constituent: Cadmium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
ND/Trace = 42
Wells = 4
Minimum Value = 0.000071
Maximum Value = 0.0025
Mean Value = 0.001058
Median Value = 0.001
Standard Deviation = 0.000525
Coefficient of Variation = 0.4963
Skewness = 1.433

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	11	0.0002	0.0025	0.001064	0.001	0.0005334	0.5015	1.601
MW-D2	11	10	0.000075	0.0025	0.001052	0.001	0.0005546	0.527	1.291
MW-D3	11	10	0.000071	0.0025	0.001052	0.001	0.0005553	0.5279	1.281
MW-U1 (bg)	11	11	0.0002	0.0025	0.001064	0.001	0.0005334	0.5015	1.601

Summary Report

Constituent: Cadmium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.001	<0.001	<0.001	<0.001
3/27/2017	<0.001	<0.001	<0.001	<0.001
4/24/2017	<0.001	<0.001	<0.001	<0.001
5/22/2017	<0.001	<0.001	<0.001	<0.001
6/19/2017	<0.001	<0.001	<0.001	<0.001
7/17/2017	<0.001	<0.001	<0.001	<0.001
8/14/2017	<0.001	<0.001	<0.001	<0.001
9/13/2017	<0.001	<0.001	<0.001	<0.001
3/22/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.001	<0.001	<0.001	<0.001
4/27/2020	<0.0002	7.5E-05 (J*)	7.1E-05 (J)	<0.0002

Summary Report

Constituent: Chromium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 48
ND/Trace = 33
Wells = 4
Minimum Value = 0.0005
Maximum Value = 0.0051
Mean Value = 0.002225
Median Value = 0.0025
Standard Deviation = 0.000826
Coefficient of Variation = 0.3713
Skewness = 0.277

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	12	11	0.0005	0.0034	0.002408	0.0025	0.0006543	0.2717	-2.023
MW-D2	12	11	0.0005	0.0038	0.002442	0.0025	0.0007166	0.2935	-1.241
MW-D3	12	11	0.0005	0.0029	0.002367	0.0025	0.000599	0.2531	-2.796
MW-U1 (bg)	12	0	0.0011	0.0051	0.001683	0.0014	0.001089	0.6467	2.891

Summary Report

Constituent: Chromium (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.0034	0.0038	0.0029	0.0051
3/27/2017	<0.0025	<0.0025	<0.0025	0.0017 (J)
4/24/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
5/22/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
6/19/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
7/17/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
8/14/2017	<0.0025	<0.0025	<0.0025	0.0012 (J)
9/13/2017	<0.0025	<0.0025	<0.0025	0.0014 (J)
3/22/2018	<0.0025	<0.0025	<0.0025	0.0016 (J)
11/29/2018	<0.0025	<0.0025	<0.0025	0.0012 (J)
4/29/2019	<0.0025	<0.0025	<0.0025	0.0011 (J)
4/27/2020	<0.0005 (^)	<0.0005 (^)	<0.0005 (^)	0.0013

Summary Report

Constituent: Cobalt Analysis Run 6/11/2020 9:35 AM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
 ND/Trace = 40
 Wells = 4
 Minimum Value = 0.00035
 Maximum Value = 0.0025
 Mean Value = 0.002003
 Median Value = 0.0025
 Standard Deviation = 0.0007379
 Coefficient of Variation = 0.3683
 Skewness = -0.9981

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	14	0.0005	0.0025	0.002357	0.0025	0.0005345	0.2268	-3.328
MW-D2	14	12	0.00047	0.0025	0.002248	0.0025	0.0006493	0.2889	-2.149
MW-D3	14	0	0.00035	0.0017	0.001194	0.00125	0.0003418	0.2862	-0.9591
MW-U1 (bg)	14	14	0.0005	0.0025	0.002214	0.0025	0.0007263	0.328	-2.041

Summary Report

Constituent: Cobalt (mg/L) Analysis Run 6/11/2020 9:37 AM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025	0.00047 (J)	0.0011 (J)	<0.0025
3/27/2017	<0.0025	<0.0025	0.00079 (J)	<0.0025
4/24/2017	<0.0025	<0.0025	0.001 (J)	<0.0025
5/22/2017	<0.0025	<0.0025	0.0012 (J)	<0.0025
6/19/2017	<0.0025	<0.0025	0.0015 (J)	<0.0025
7/17/2017	<0.0025	<0.0025	0.0014 (J)	<0.0025
8/14/2017	<0.0025	<0.0025	0.0013 (J)	<0.0025
9/13/2017	<0.0025	<0.0025	0.0014 (J)	<0.0025
3/22/2018	<0.0025	<0.0025	0.0015 (J)	<0.0005
6/5/2018	<0.0025	<0.0025	0.0017 (J)	<0.0025
11/29/2018	<0.0025	<0.0025	0.00098 (J)	<0.0025
4/29/2019	<0.0025	<0.0025	0.0013 (J)	<0.0025
10/23/2019	<0.0025	<0.0025	0.0012 (J)	<0.0025
4/27/2020	<0.0005 (*)	0.001	0.00035 (J)	<0.0005 (*)

Summary Report

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
 ND/Trace = 10
 Wells = 4
 Minimum Value = -0.0586
 Maximum Value = 1.28
 Mean Value = 0.4073
 Median Value = 0.405
 Standard Deviation = 0.2933
 Coefficient of Variation = 0.7202
 Skewness = 1.056

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	2	0.0994	0.816	0.3625	0.344	0.2237	0.6171	0.6185
MW-D2	14	3	0.0139	1.28	0.4786	0.4525	0.3045	0.6363	1.111
MW-D3	14	2	0.0501	1.28	0.5775	0.5395	0.3215	0.5566	0.9099
MW-U1 (bg)	14	3	-0.0586	0.614	0.2106	0.1625	0.1934	0.9181	0.642

Summary Report

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.421	0.506	0.522	0.117
3/27/2017	0.655	1.28	0.557	-0.0198
4/24/2017	0.212	0.756	0.572	0.19
5/22/2017	0.186	0.333	0.457	0.133
6/19/2017	0.156	0.388	0.78	0.135
7/17/2017	0.153	0.534	0.409	0.19
8/14/2017	0.287	0.452	0.339	0.302
9/13/2017	0.816	0.453	1.28	0.614
3/22/2018	0.643	0.716	1.17	0.131
6/5/2018	0.149	0.0139	0.564	-0.0586
11/29/2018	0.0994	0.18	0.0501	0.0234
4/29/2019	<0.457	<0.42	0.594	<0.386
10/23/2019	<0.439	<0.484	<0.465	<0.508
4/27/2020	0.401	<0.184	<0.326	<0.298

Summary Report

Constituent: Fluoride Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 56
ND/Trace = 1
Wells = 4
Minimum Value = 0.04
Maximum Value = 0.13
Mean Value = 0.07418
Median Value = 0.06
Standard Deviation = 0.02648
Coefficient of Variation = 0.357
Skewness = 0.6905

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	14	0	0.04	0.12	0.07107	0.07	0.02272	0.3196	0.7186
MW-D2	14	0	0.04	0.07	0.05793	0.06	0.008043	0.1388	-0.5599
MW-D3	14	0	0.06	0.13	0.1093	0.11	0.01685	0.1542	-1.785
MW-U1 (bg)	14	1	0.04	0.1	0.05843	0.06	0.0146	0.2498	1.517

Summary Report

Constituent: Fluoride (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	0.06 (J)	0.06 (J)	0.13	0.06 (J)
3/27/2017	0.05 (J)	0.05 (J)	0.11	0.04 (J)
4/24/2017	0.07 (J)	0.07 (J)	0.12	0.06 (J)
5/22/2017	0.07 (J)	0.06 (J)	0.11	0.06 (J)
6/19/2017	0.08 (J)	0.06 (J)	0.12	0.06 (J)
7/17/2017	0.11	0.06 (J)	0.06 (J)	0.06 (J)
8/14/2017	0.07 (J)	0.06 (J)	0.12	0.05 (J)
9/13/2017	0.075 (J)	0.061 (J)	0.12	0.058 (J)
3/22/2018	0.08 (J)	0.06 (J)	0.11	0.07 (J)
6/5/2018	0.07 (J)	0.07 (J)	0.12	0.06 (J)
11/29/2018	0.04 (J)	0.04 (J)	0.1	0.04 (J)
4/29/2019	0.06 (J)	0.06 (J)	0.11	<0.1
10/23/2019	0.12 (B)	0.05 (JB)	0.1 (B)	0.05 (JB)
4/27/2020	0.04 (J)	0.05 (J)	0.1	0.05 (J)

Summary Report

Constituent: Lead Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 40
 Wells = 4
 Minimum Value = 0.00025
 Maximum Value = 0.0013
 Mean Value = 0.001139
 Median Value = 0.0013
 Standard Deviation = 0.000356
 Coefficient of Variation = 0.3125
 Skewness = -1.843

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	10	0.00025	0.0013	0.001159	0.0013	0.0003368	0.2905	-2.121
MW-D2	11	9	0.00025	0.0013	0.001047	0.0013	0.0004364	0.4167	-1.075
MW-D3	11	11	0.00025	0.0013	0.001205	0.0013	0.0003166	0.2628	-2.846
MW-U1 (bg)	11	10	0.00025	0.0013	0.001145	0.0013	0.0003553	0.3102	-1.886

Summary Report

Constituent: Lead (mg/L) Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013 (^)	0.0005 (J)	<0.0013 (^)	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	<0.0013	<0.0013	<0.0013
5/22/2017	<0.0013	<0.0013	<0.0013	0.00065 (J)
6/19/2017	<0.0013	<0.0013	<0.0013	<0.0013
7/17/2017	<0.0013	<0.0013	<0.0013	<0.0013
8/14/2017	0.0008 (J)	0.00037 (J)	<0.0013	<0.0013
9/13/2017	<0.0013	<0.0013	<0.0013	<0.0013
3/22/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	<0.0013	<0.0013
4/27/2020	<0.00025 (^)	<0.00025 (^)	<0.00025 (^)	<0.00025 (^)

Summary Report

Constituent: Lithium Analysis Run 6/10/2020 12:52 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 48
 ND/Trace = 44
 Wells = 4
 Minimum Value = 0.00034
 Maximum Value = 0.005
 Mean Value = 0.00239
 Median Value = 0.0025
 Standard Deviation = 0.0009489
 Coefficient of Variation = 0.397
 Skewness = 0.3552

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	12	12	0.0005	0.005	0.002542	0.0025	0.0009643	0.3794	0.6719
MW-D2	12	11	0.0005	0.005	0.002425	0.0025	0.001051	0.4333	0.6237
MW-D3	12	10	0.00048	0.005	0.00244	0.0025	0.001033	0.4232	0.6701
MW-U1 (bg)	12	11	0.00034	0.0025	0.002153	0.0025	0.0008104	0.3763	-1.796

Summary Report

Constituent: Lithium (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/27/2017	<0.0025	<0.0025	<0.0025	<0.0025
4/24/2017	<0.0025	<0.0025	<0.0025	<0.0025
5/22/2017	<0.0025	<0.0025	<0.0025	<0.0025
6/19/2017	<0.0025	<0.0025	<0.0025	<0.0025
7/17/2017	<0.0025	<0.0025	<0.0025	<0.0025
8/14/2017	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/22/2018	<0.005	<0.005	<0.005	0.00034 (J)
11/29/2018	<0.0025	<0.0025	<0.0025	<0.0025
4/29/2019	<0.0025	0.0011 (J)	0.0013 (J)	<0.0025
4/27/2020	<0.0005 (^)	<0.0005	0.00048 (J)	<0.0005 (^)

Summary Report

Constituent: Mercury Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 44
 ND/Trace = 38
 Wells = 4
 Minimum Value = 0.000077
 Maximum Value = 0.00129
 Mean Value = 0.0002151
 Median Value = 0.0002
 Standard Deviation = 0.0001684
 Coefficient of Variation = 0.7829
 Skewness = 6.08

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	11	10	0.000077	0.0002	0.0001888	0.0002	0.00003709	0.1964	-2.846
MW-D2	11	8	0.00011	0.00129	0.0002891	0.0002	0.0003331	1.152	2.81
MW-D3	11	10	0.00011	0.0002	0.0001918	0.0002	0.00002714	0.1415	-2.846
MW-U1 (bg)	11	10	0.000099	0.0002	0.0001908	0.0002	0.00003045	0.1596	-2.846

Summary Report

Constituent: Mercury (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	7.7E-05 (JB)	0.00018 (JB)	0.00011 (JB)	9.9E-05 (JB)
3/27/2017	<0.0002	0.00011 (J)	<0.0002	<0.0002
4/24/2017	<0.0002	<0.0002	<0.0002	<0.0002
5/22/2017	<0.0002	<0.0002	<0.0002	<0.0002
6/19/2017	<0.0002	<0.0002	<0.0002	<0.0002
7/17/2017	<0.0002	<0.0002	<0.0002	<0.0002
8/14/2017	<0.0002	<0.0002	<0.0002	<0.0002
9/13/2017	<0.0002	<0.0002	<0.0002	<0.0002
3/22/2018	<0.0002	<0.0002	<0.0002	<0.0002
4/29/2019	<0.0002	<0.0002	<0.0002	<0.0002
4/27/2020	<0.0002	0.00129 (D)	<0.0002	<0.0002

Summary Report

Constituent: Molybdenum Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 52
 ND/Trace = 38
 Wells = 4
 Minimum Value = 0.0012
 Maximum Value = 0.015
 Mean Value = 0.007642
 Median Value = 0.01
 Standard Deviation = 0.003926
 Coefficient of Variation = 0.5137
 Skewness = -0.5041

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	13	0.002	0.015	0.009769	0.01	0.002713	0.2777	-1.415
MW-D2	13	10	0.0012	0.015	0.007869	0.01	0.004418	0.5614	-0.4627
MW-D3	13	2	0.0017	0.01	0.004085	0.0023	0.003228	0.7903	1.166
MW-U1 (bg)	13	13	0.002	0.01	0.008846	0.01	0.002824	0.3192	-1.94

Summary Report

Constituent: Molybdenum (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.01	0.0012 (J)	0.0088 (J)	<0.01
3/27/2017	<0.01	<0.01	0.0023 (J)	<0.01
4/24/2017	<0.01	<0.01	0.0018 (J)	<0.01
5/22/2017	<0.01	0.0025 (J)	0.0031 (J)	<0.01
6/19/2017	<0.01	0.0016 (J)	0.0043 (J)	<0.01
7/17/2017	<0.01	<0.01	0.0027 (J)	<0.01
8/14/2017	<0.01	<0.01	0.0017 (J)	<0.01
9/13/2017	<0.01	<0.01	0.0021 (J)	<0.01
3/22/2018	<0.015	<0.015	0.0022 (J)	<0.003
6/5/2018	<0.01	<0.01	0.0022 (J)	<0.01
11/29/2018	<0.01	<0.01	<0.01	<0.01
4/29/2019	<0.01	<0.01	<0.01	<0.01
4/27/2020	<0.002 (^)	<0.002 (^)	0.0019 (J)	<0.002 (^)

Summary Report

Constituent: Selenium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 48
 ND/Trace = 33
 Wells = 4
 Minimum Value = 0.00021
 Maximum Value = 0.0028
 Mean Value = 0.001051
 Median Value = 0.0013
 Standard Deviation = 0.0004822
 Coefficient of Variation = 0.4588
 Skewness = 0.3109

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	12	11	0.00025	0.0013	0.001132	0.0013	0.0003935	0.3477	-1.796
MW-D2	12	9	0.00025	0.0013	0.001048	0.0013	0.0004126	0.3939	-1.141
MW-D3	12	8	0.00021	0.0028	0.001144	0.0013	0.0006878	0.6012	0.7497
MW-U1 (bg)	12	5	0.00039	0.0013	0.0008808	0.00073	0.0003838	0.4357	0.1228

Summary Report

Constituent: Selenium (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0013	<0.0013	0.0028	<0.0013
3/27/2017	<0.0013	<0.0013	<0.0013	<0.0013
4/24/2017	<0.0013	<0.0013	<0.0013	<0.0013
5/22/2017	<0.0013	0.001 (J)	0.00037 (J)	0.00076 (J)
6/19/2017	<0.0013	0.00059 (JB)	0.001 (JB)	0.00062 (JB)
7/17/2017	0.00033 (J)	0.00033 (J)	<0.0013	0.0007 (J)
8/14/2017	<0.0013	<0.0013	<0.0013	0.00058 (J)
9/13/2017	<0.0013	<0.0013	<0.0013	0.00041 (J)
3/22/2018	<0.0013	<0.0013	<0.00025	0.00039
11/29/2018	<0.0013	<0.0013	<0.0013	<0.0013
4/29/2019	<0.0013	<0.0013	<0.0013	<0.0013
4/27/2020	<0.00025	<0.00025	0.00021 (J)	0.00061

Summary Report

Constituent: Thallium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

For observations made between 2/28/2017 and 4/27/2020, a summary of the selected data set:

Observations = 54
 ND/Trace = 30
 Wells = 4
 Minimum Value = 0.000085
 Maximum Value = 0.0005
 Mean Value = 0.0003166
 Median Value = 0.0005
 Standard Deviation = 0.0001935
 Coefficient of Variation = 0.6112
 Skewness = -0.1087

<u>Well</u>	<u>#Obs.</u>	<u>ND/Trace</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>CV</u>	<u>Skewness</u>
MW-D1	13	13	0.0001	0.0005	0.0004692	0.0005	0.0001109	0.2364	-3.175
MW-D2	14	4	0.000085	0.0005	0.0002321	0.000125	0.0001806	0.7781	0.8084
MW-D3	14	0	0.000095	0.00017	0.0001175	0.000115	0.00001848	0.1572	1.581
MW-U1 (bg)	13	13	0.0001	0.0005	0.0004692	0.0005	0.0001109	0.2364	-3.175

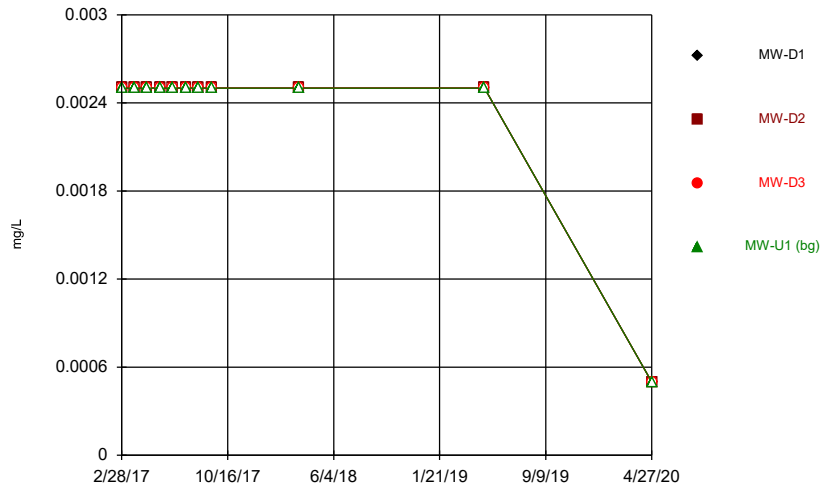
Summary Report

Constituent: Thallium (mg/L) Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 14

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

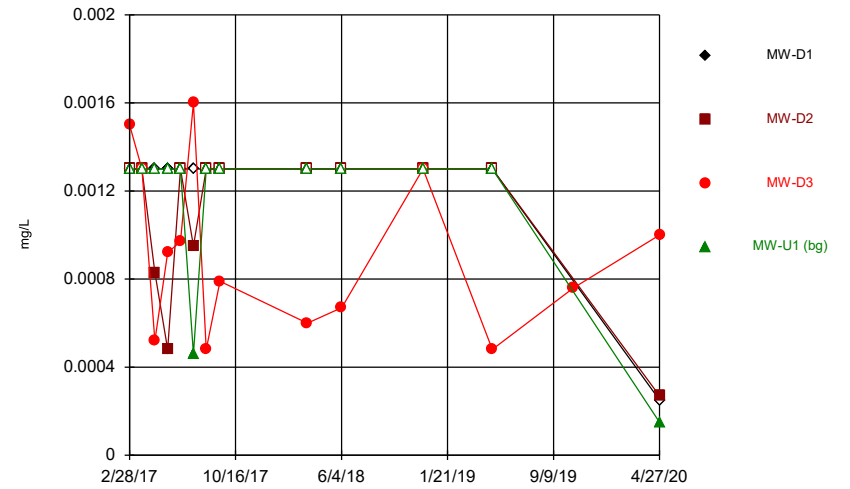
	MW-D1	MW-D2	MW-D3	MW-U1 (bg)
2/28/2017	<0.0005	0.00011 (J)	0.00013 (J)	<0.0005
3/27/2017	<0.0005	<0.0005	0.00011 (J)	<0.0005
4/24/2017	<0.0005	<0.0005	9.5E-05 (J)	<0.0005
5/22/2017	<0.0005	0.00011 (J)	0.00011 (J)	<0.0005
6/19/2017	<0.0005	0.00011 (J)	0.00012 (J)	<0.0005
7/17/2017	<0.0005	0.00011 (J)	0.00012 (J)	<0.0005
8/14/2017	<0.0005	0.00013 (J)	0.00011 (J)	<0.0005
9/13/2017	<0.0005	0.00012 (J)	0.00013 (J)	<0.0005
3/22/2018	<0.0005	<0.0005	0.0001 (J)	<0.0005
6/5/2018	<0.0005	8.5E-05 (J)	0.00012 (J)	<0.0005
11/29/2018	<0.0005	8.5E-05 (J)	0.0001 (J)	<0.0005
4/29/2019	<0.0005	<0.0005	0.00011 (J)	<0.0005
10/23/2019		0.00026 (J)	0.00017 (J)	
4/27/2020	<0.0001 (*)	0.00013	0.00012	<0.0001 (*)

Time Series



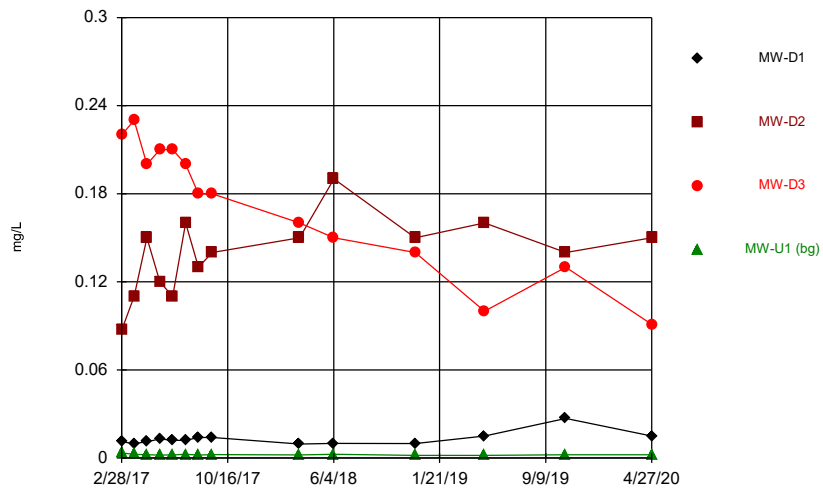
Constituent: Antimony Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



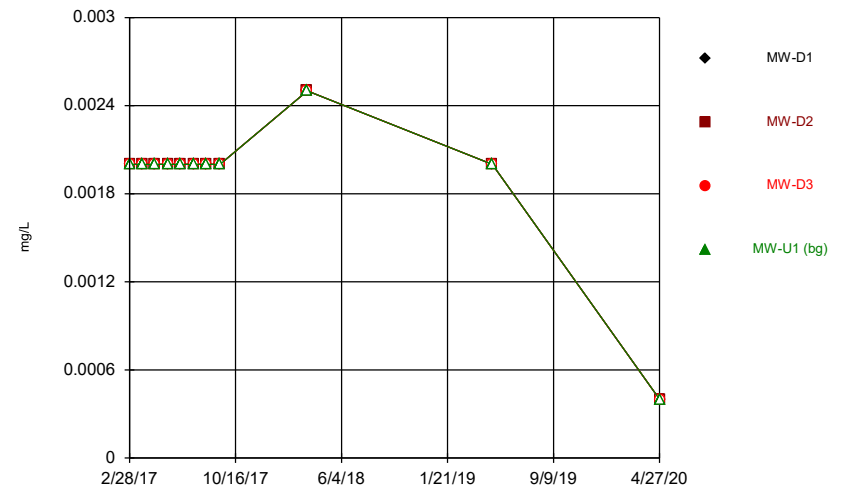
Constituent: Arsenic Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



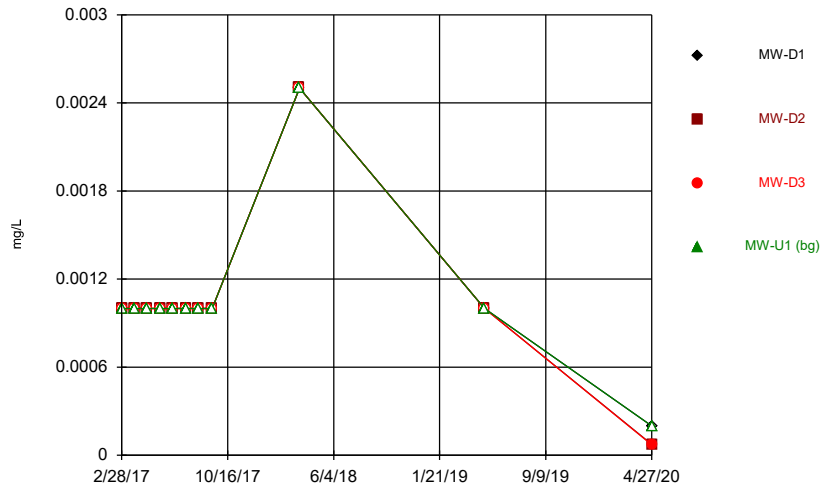
Constituent: Barium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



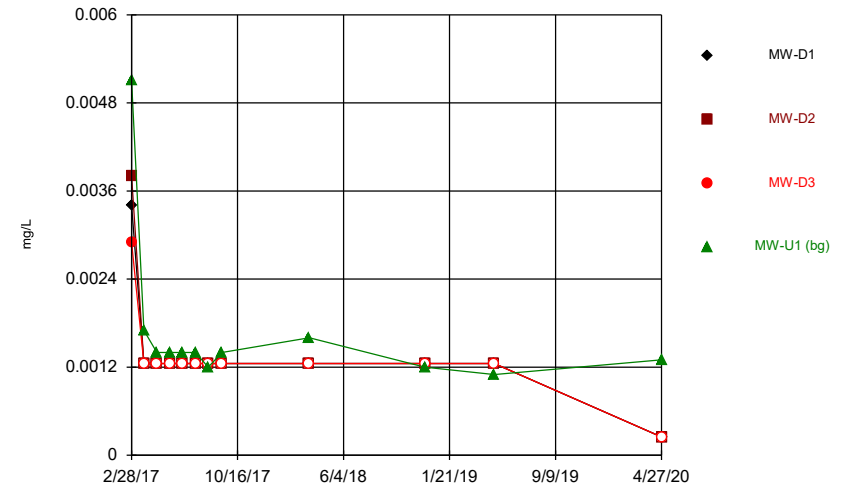
Constituent: Beryllium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



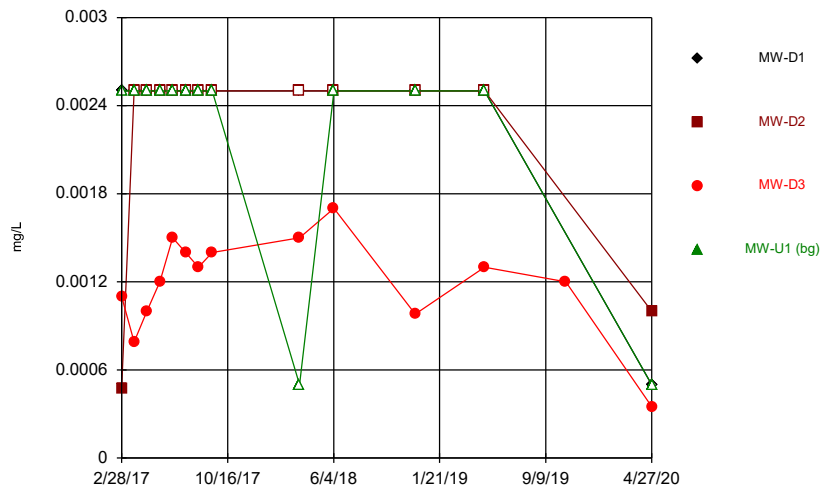
Constituent: Cadmium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



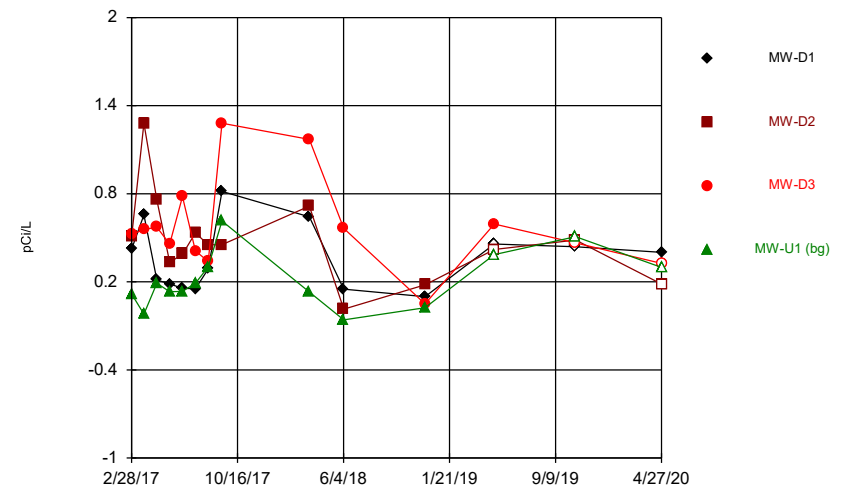
Constituent: Chromium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



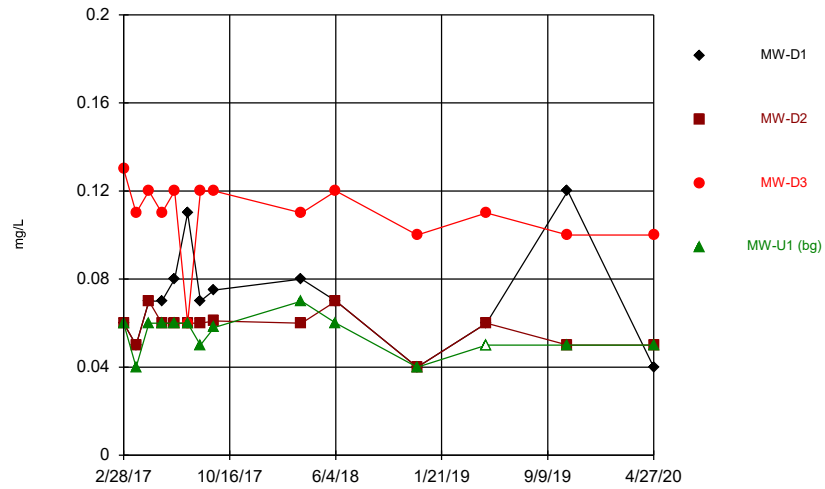
Constituent: Cobalt Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



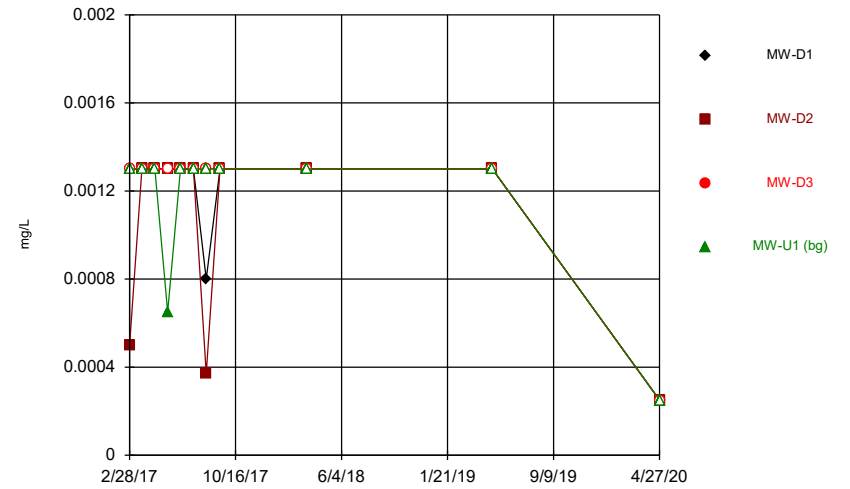
Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSam
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



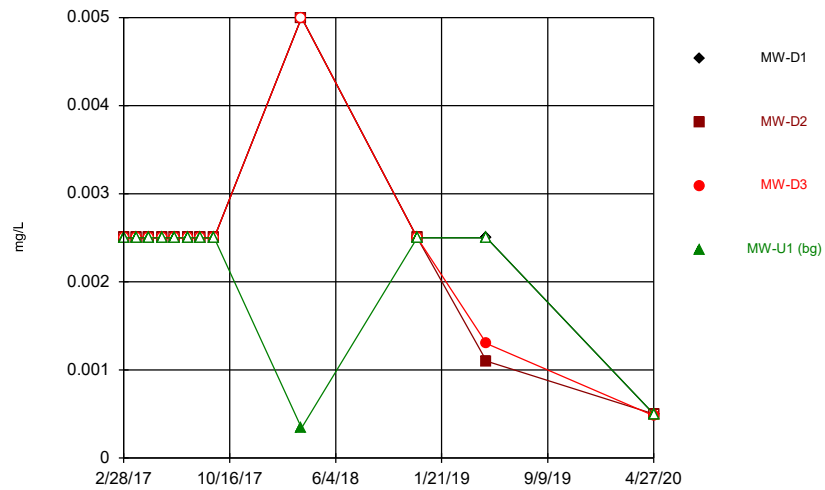
Constituent: Fluoride Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



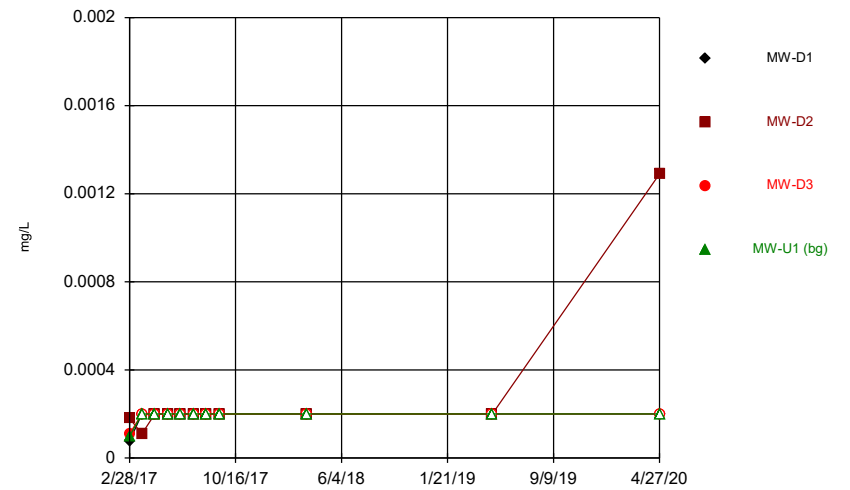
Constituent: Lead Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



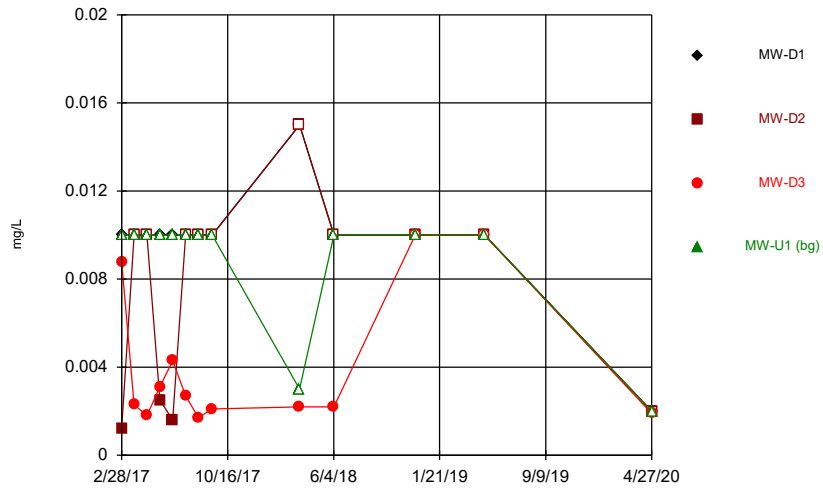
Constituent: Lithium Analysis Run 6/10/2020 12:57 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



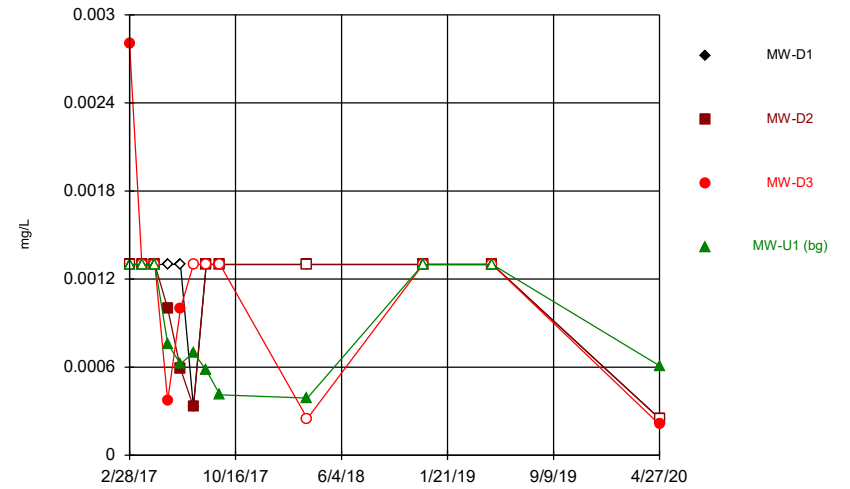
Constituent: Mercury Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



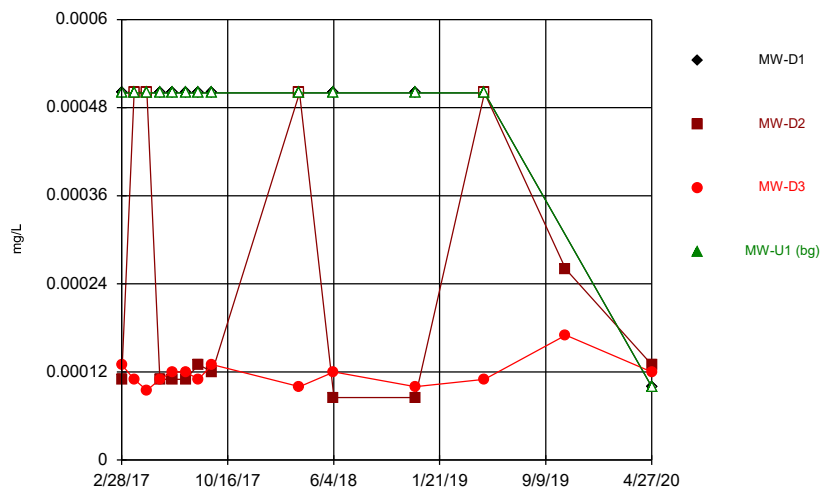
Constituent: Molybdenum Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 th
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



Constituent: Selenium Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Time Series



Constituent: Thallium Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Outlier Analysis

CCPC Plant Crisp Ash Pond Site

Client: Geosyntec

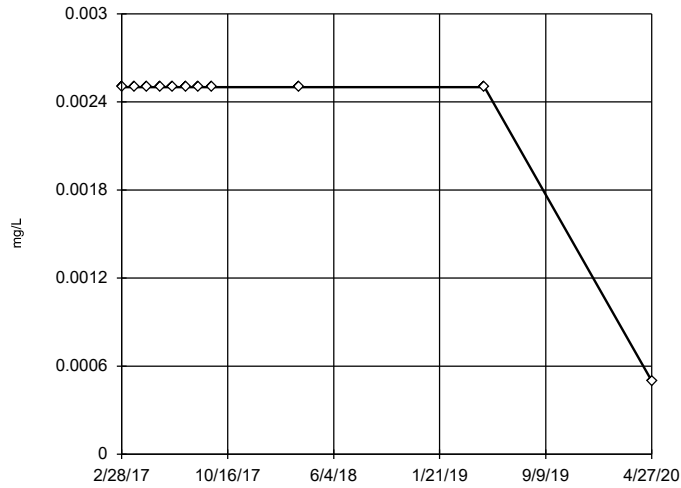
Data: Sanitas_Statistics Sampling Events 1 through 10

Printed 6/10/2020, 1:03 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Barium (mg/L)	MW-D1	Yes	0.027	10/23/2019	EPA 1989	0.05	14	0.01309	0.004441	normal	ShapiroWilk
Barium (mg/L)	MW-U1 (bg)	Yes	0.0034	2/28/2017	EPA 1989	0.05	14	0.002264	0.0004069	normal	ShapiroWilk
Chromium (mg/L)	MW-U1 (bg)	Yes	0.0051	2/28/2017	EPA 1989	0.05	12	0.001683	0.001089	normal	ShapiroWilk
Cobalt (mg/L)	MW-D3	Yes	0.00035	4/27/2020	EPA 1989	0.05	14	0.001194	0.0003418	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-D2	Yes	0.0139	6/5/2018	EPA 1989	0.05	14	0.4786	0.3045	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	MW-D3	Yes	0.0501	11/29/2018	EPA 1989	0.05	14	0.5775	0.3215	ln(x)	ShapiroWilk
Fluoride (mg/L)	MW-D3	Yes	0.06	7/17/2017	EPA 1989	0.05	14	0.1093	0.01685	normal	ShapiroWilk
Thallium (mg/L)	MW-D3	Yes	0.00017	10/23/2019	EPA 1989	0.05	14	0.000...	0.0000...	normal	ShapiroWilk

Tukey's Outlier Screening

MW-D1

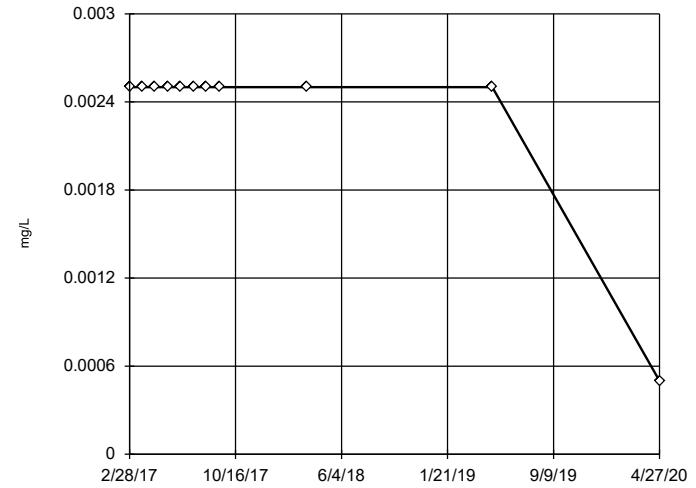


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

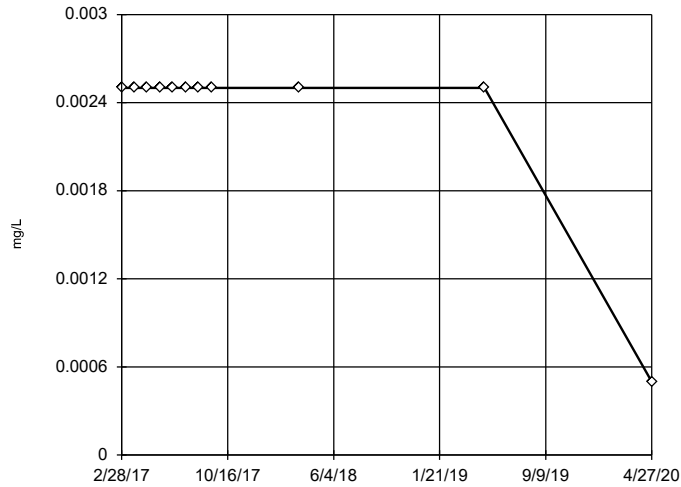


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

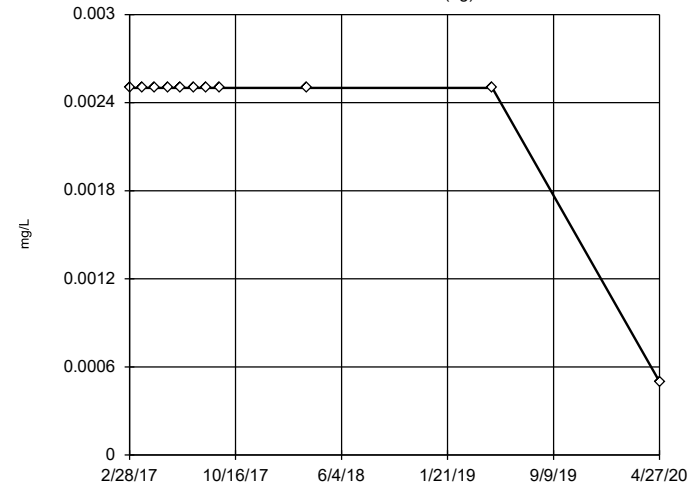


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

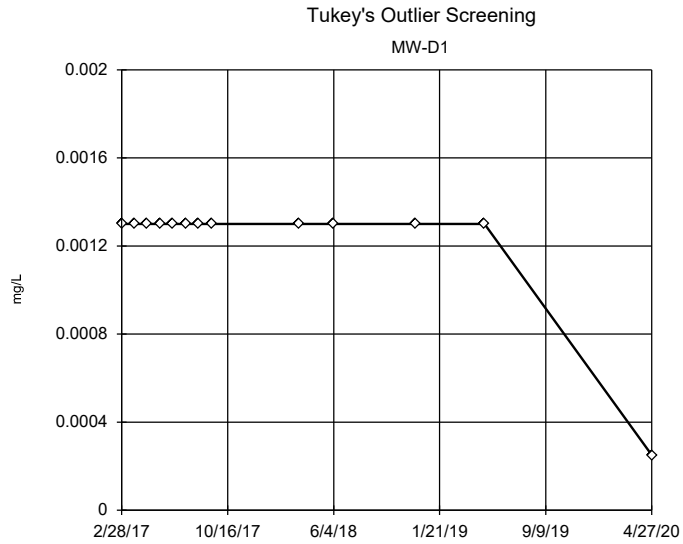
Tukey's Outlier Screening

MW-U1 (bg)

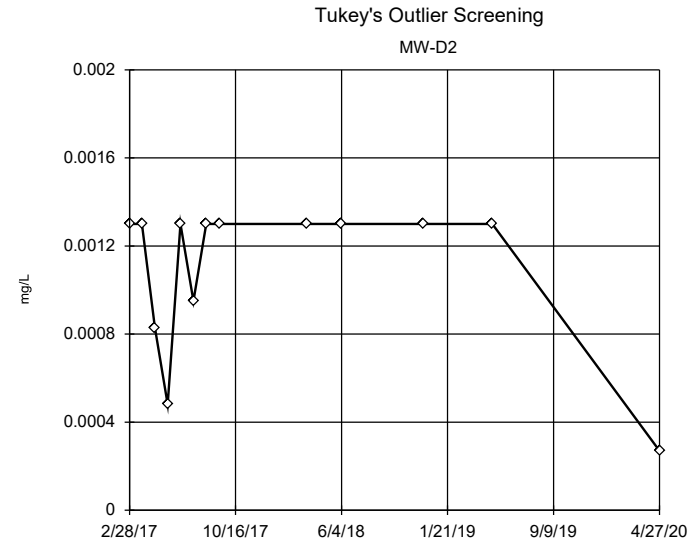


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 6/10/2020 12:58 PM View: Sanitas_StatisticsSamplingEvents 1 through 11
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



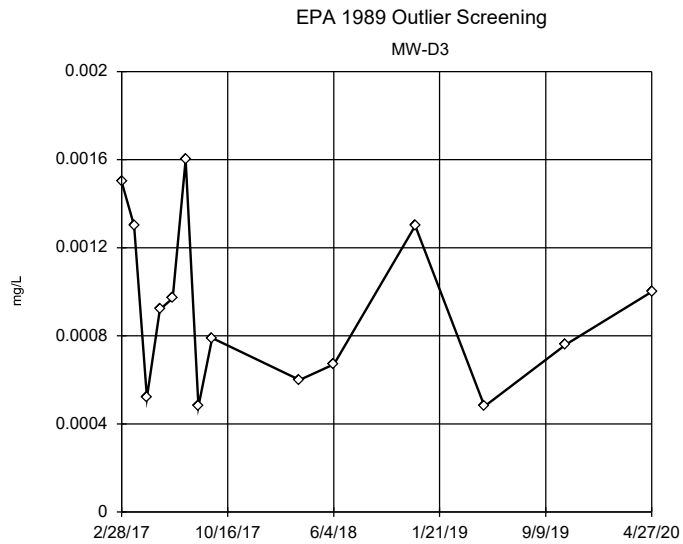
n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.



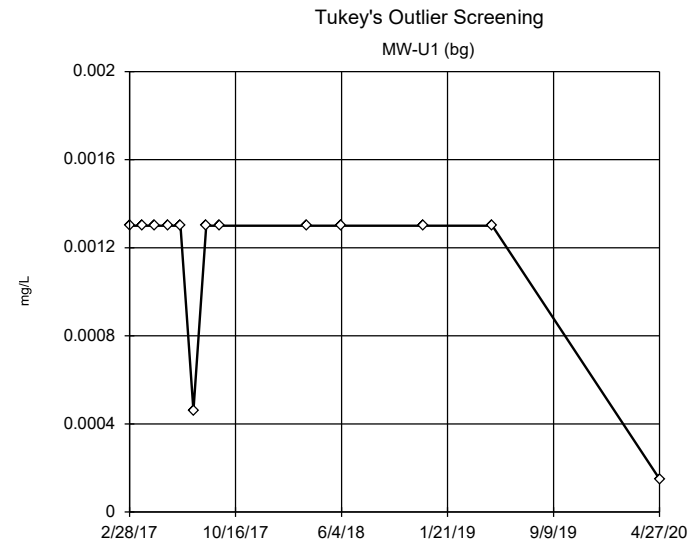
n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.002091, low cutoff = -0.001374, based on IQR multiplier of 3.

Constituent: Arsenic Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Constituent: Arsenic Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10



n = 14
 No statistical outliers.
 Mean = 0.0009207, std. dev. = 0.0003773, critical Tn = 2.371
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9184
 Critical = 0.825
 The distribution was found to be normally distributed.

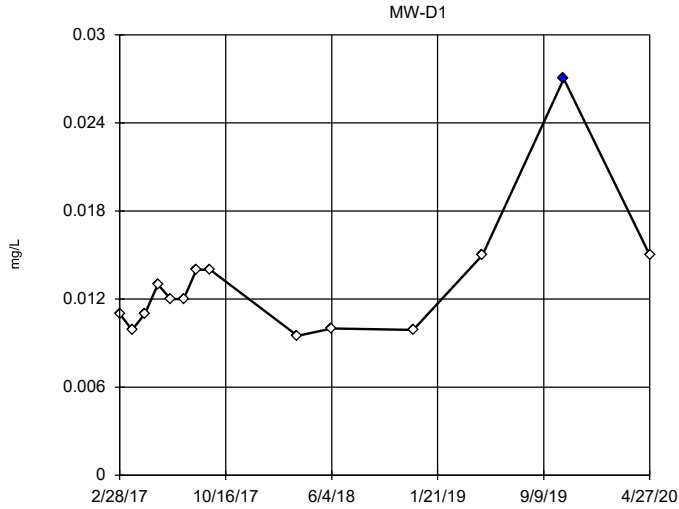


n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Arsenic Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Constituent: Arsenic Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

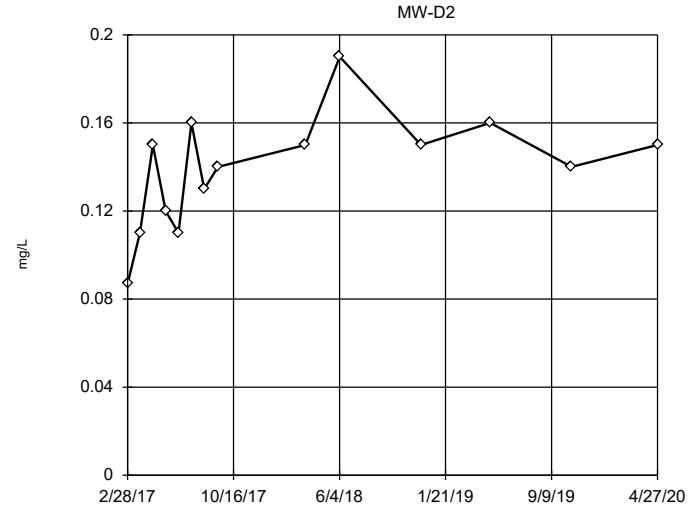
EPA 1989 Outlier Screening



n = 14
 Statistical outlier is drawn as solid.
 Mean 0.01309, std. dev. 0.00444, critical Tn 2.371. After removing suspect data: mean 0.01202, std. dev. 0.00200, Tn 2.331.
 Normality test used: Shapiro Wilk(alpha = 0.01) Calculated = 0.9032 Critical = 0.814 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

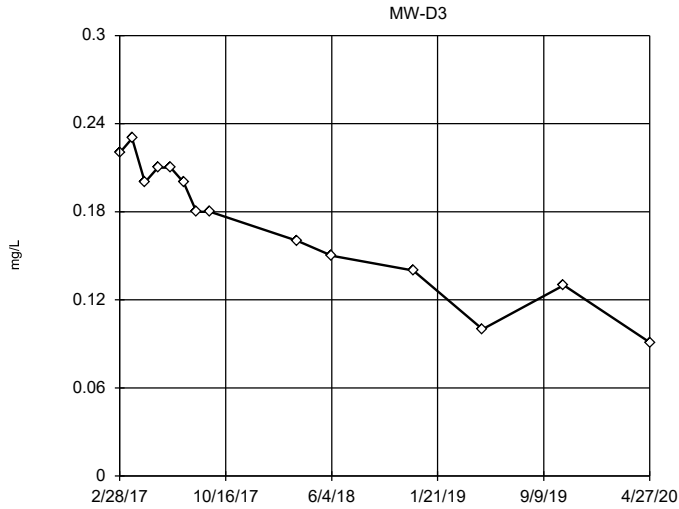
EPA 1989 Outlier Screening



n = 14
 No statistical outliers.
 Mean 0.1391, std. dev. 0.02601, critical Tn 2.371
 Normality test used: Shapiro Wilk(alpha = 0.01) Calculated = 0.9586 Critical = 0.825 The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

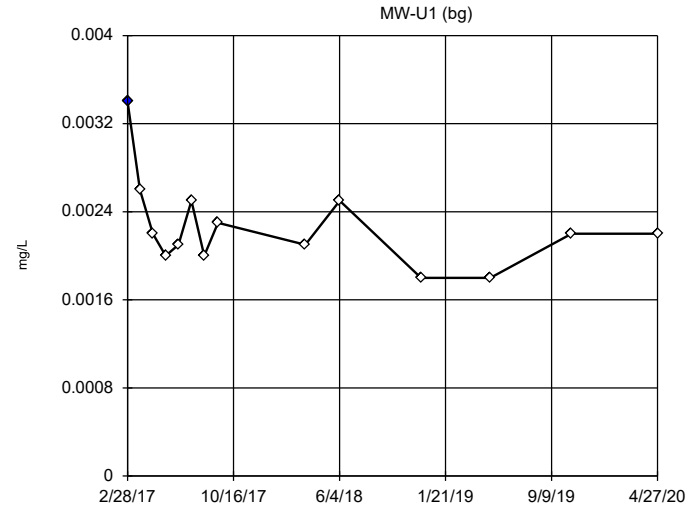
EPA 1989 Outlier Screening



n = 14
 No statistical outliers.
 Mean 0.1715, std. dev. 0.04421, critical Tn 2.371
 Normality test used: Shapiro Wilk(alpha = 0.01) Calculated = 0.9359 Critical = 0.825 The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

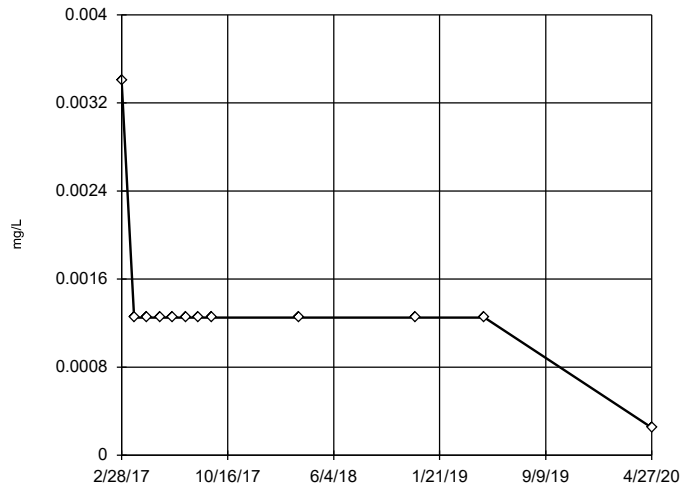
EPA 1989 Outlier Screening



n = 14
 Statistical outlier is drawn as solid.
 Mean 0.002264, std. dev. 0.0004069, critical Tn 2.371. After removing suspect data: mean 0.002177, std. dev. 0.0002522, Tn 2.331.
 Normality test used: Shapiro Wilk(alpha = 0.01) Calculated = 0.9461 Critical = 0.814 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 6/10/2020 12:59 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

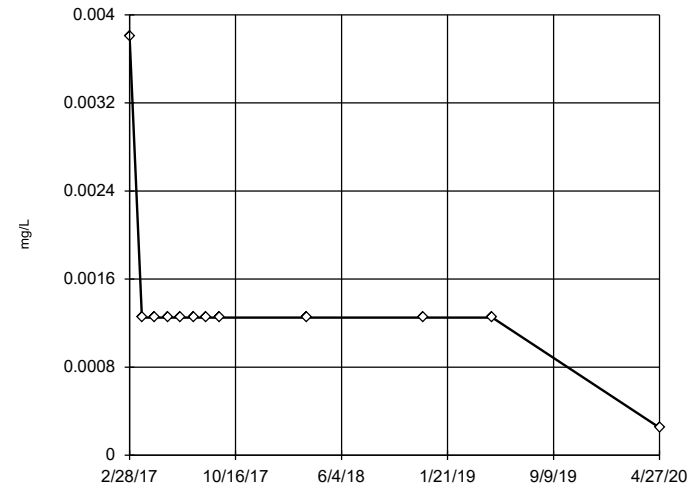
Tukey's Outlier Screening
MW-D1



n = 12
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
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: Chromium Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

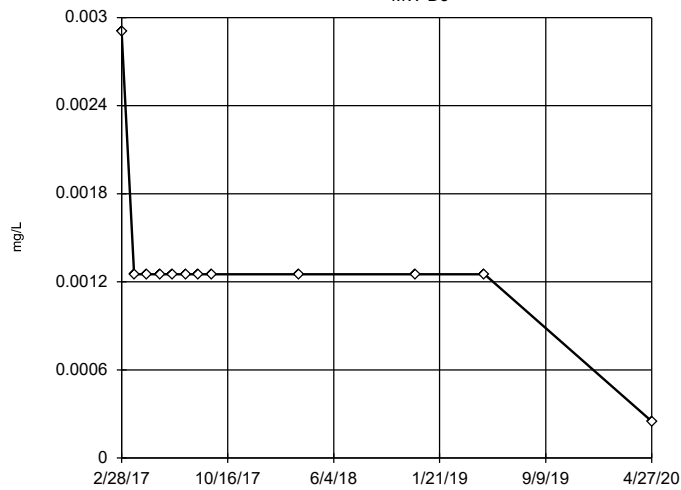
Tukey's Outlier Screening
MW-D2



n = 12
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
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: Chromium Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

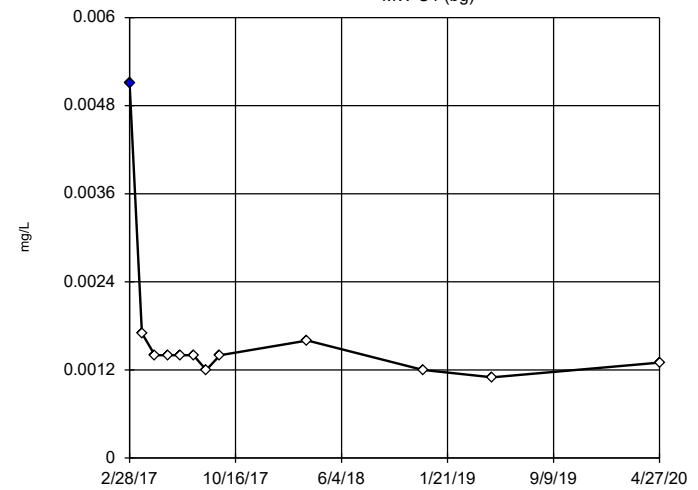
Tukey's Outlier Screening
MW-D3



n = 12
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square 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: Chromium Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening
MW-U1 (bg)

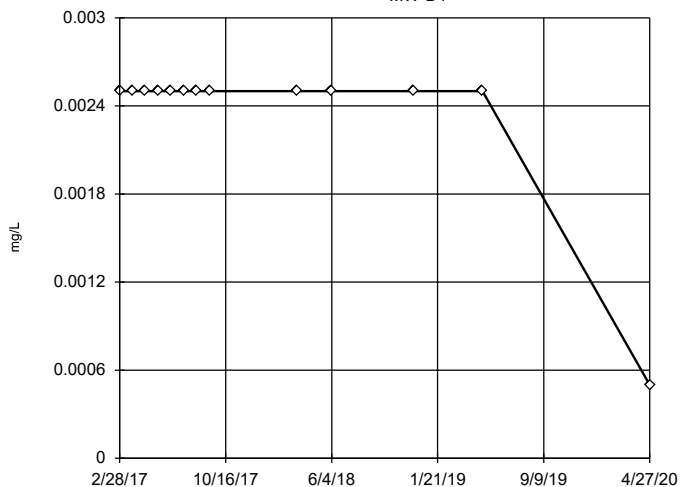


n = 12
Statistical outlier is drawn as solid. Mean 0.001683, std. dev. 0.001089, critical Tn 2.285. After removing suspect data: mean 0.001373, std. dev. 0.0001737, Tn 2.234.
Normality test used: Shapiro Wilk(alpha = 0.01 Calculated = 0.9242 Critical = 0.792 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Chromium Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 thru
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

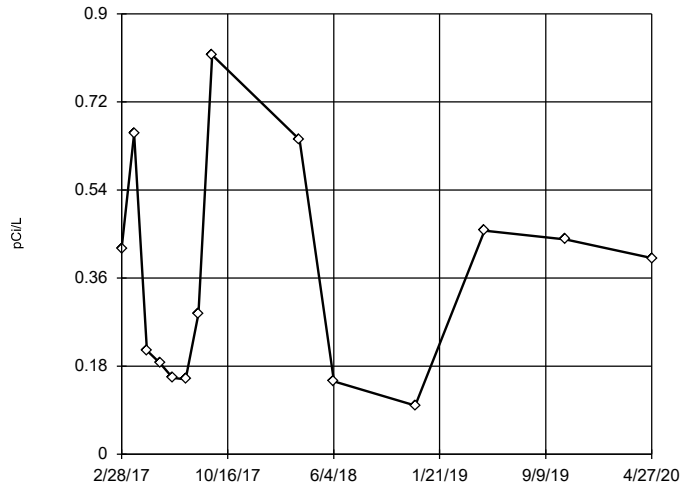
Tukey's Outlier Screening

MW-D1



EPA 1989 Outlier Screening

MW-D1

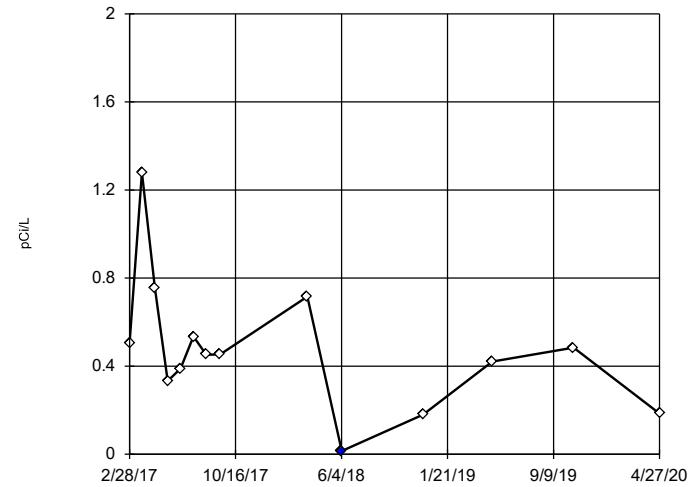


n = 14
 No statistical outliers.
 Mean 0.3625, std. dev. 0.2237, critical Tn 2.371
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9074
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D2

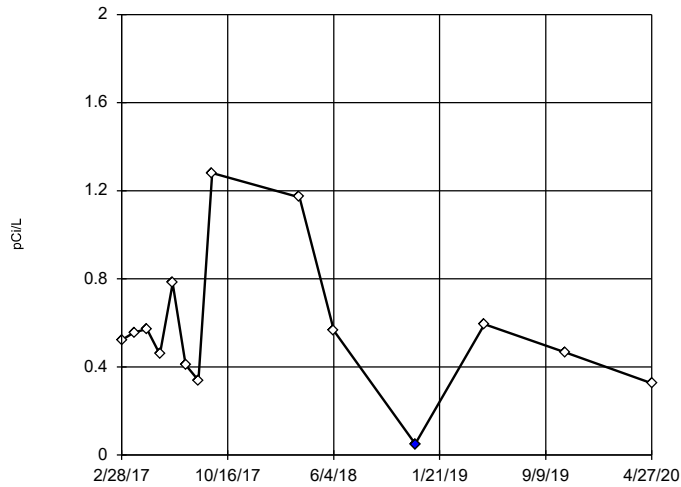


n = 14
 Statistical outlier is drawn as solid.
 Mean 0.4786, std. dev. 0.3045, critical Tn 2.371.
 After removing suspect data: mean 0.5143, std. dev. 0.2847, Tn 2.331.
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.8477
 Critical = 0.814
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

MW-D3

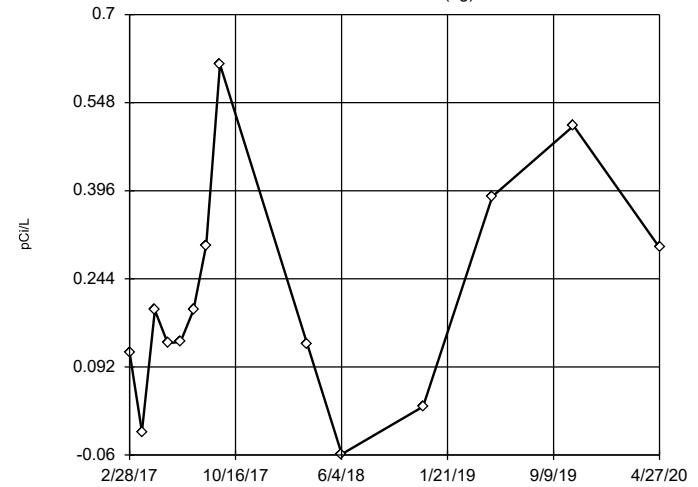


n = 14
 Statistical outlier is drawn as solid.
 Mean 0.5775, std. dev. 0.3215, critical Tn 2.371.
 After removing suspect data: mean 0.6181, std. dev. 0.2949, Tn 2.331.
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9131
 Critical = 0.814 (after natural log transformation)
 The distribution, after removal of suspect value, was found to be log-normal.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening

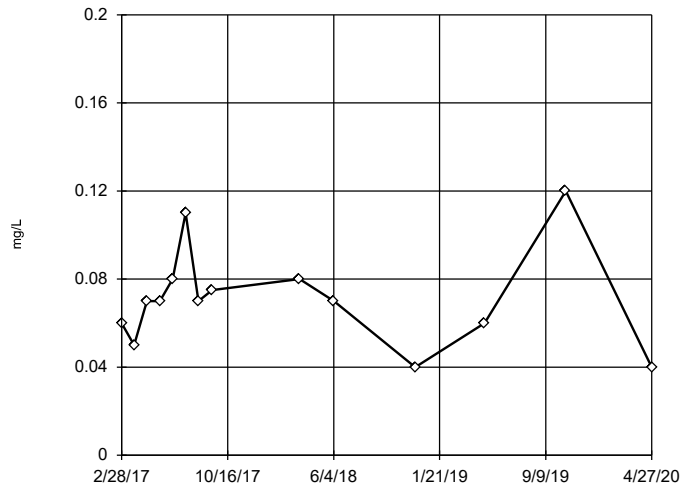
MW-U1 (bg)



n = 14
 No statistical outliers.
 Mean 0.2106, std. dev. 0.1934, critical Tn 2.371
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9427
 Critical = 0.825
 The distribution was found to be normally distributed.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

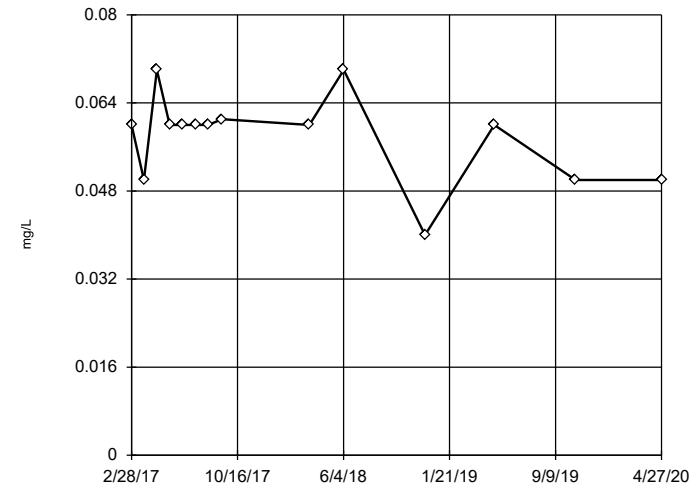
EPA 1989 Outlier Screening MW-D1



n = 14
No statistical outliers.
Mean 0.07107, std. dev.
0.02272, critical Tn 2.371
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9087
Critical = 0.825
The distribution was found
to be normally distrib-
uted.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

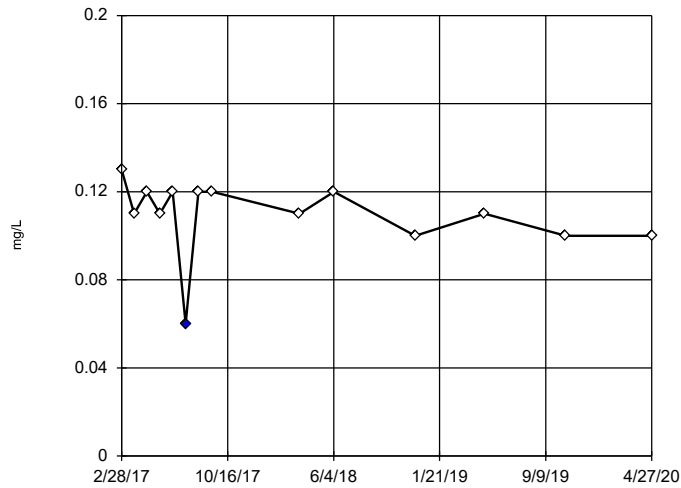
Tukey's Outlier Screening MW-D2



n = 14
No outliers found.
Tukey's method used in
lieu of parametric test
because the Shapiro Wilk
normality test failed at
the 0.01 alpha level.
Data were square trans-
formed to achieve best
W statistic (graph shown
in original units).
High cutoff = 0.08451,
low cutoff = -0.03133,
based on IQR multiplier
of 3.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

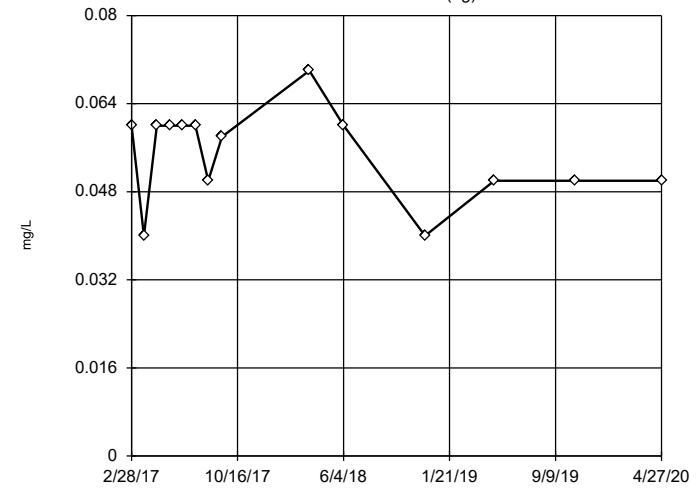
EPA 1989 Outlier Screening MW-D3



n = 14
Statistical outlier is
drawn as solid.
Mean 0.1093, std. dev.
0.01685, critical Tn 2.371.
After removing suspect
data: mean 0.1131, std.
dev. 0.009473, Tn 2.331.
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8864
Critical = 0.814
The distribution, after
removal of suspect val-
ue, was found to be nor-
mally distributed.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

EPA 1989 Outlier Screening MW-U1 (bg)

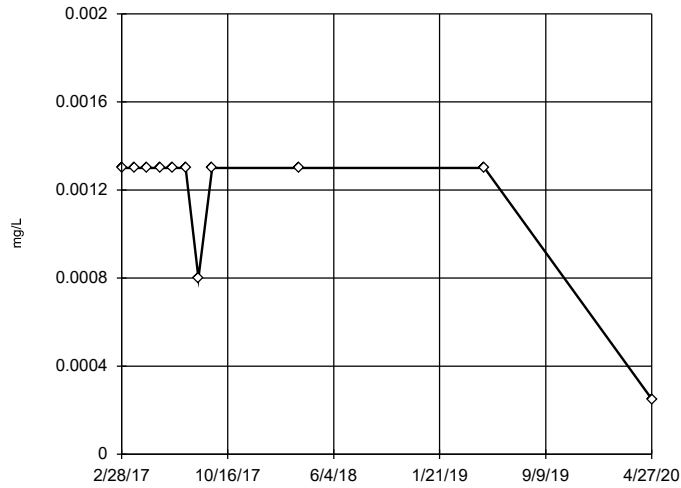


n = 14
No statistical outliers.
Mean 0.05488, std. dev.
0.008475, critical Tn
2.371
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8801
Critical = 0.825
The distribution was found
to be normally distrib-
uted.

Constituent: Fluoride Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D1

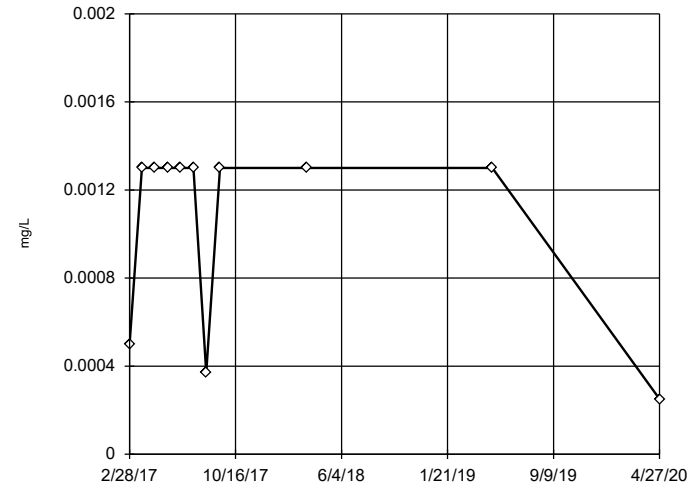


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were square transformed to achieve best W statistic (graph shown in original units).
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lead Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

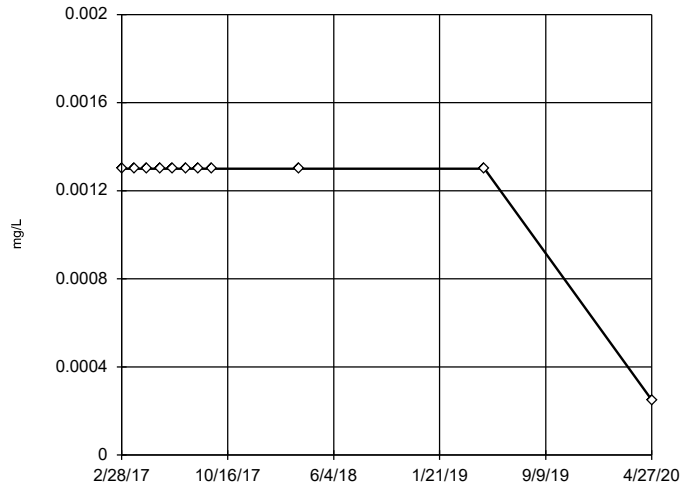


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
High cutoff = 0.02285, low cutoff = 0.00002845, based on IQR multiplier of 3.

Constituent: Lead Analysis Run 6/10/2020 1:00 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

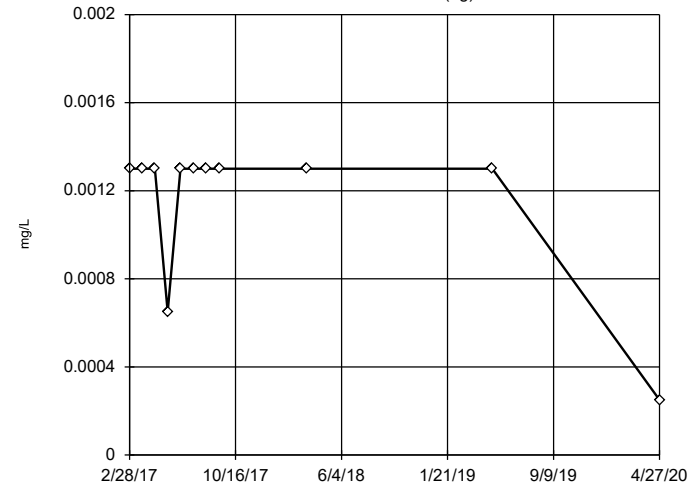


n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Ladder of Powers transformations did not improve normality; analysis run on raw data.
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lead Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

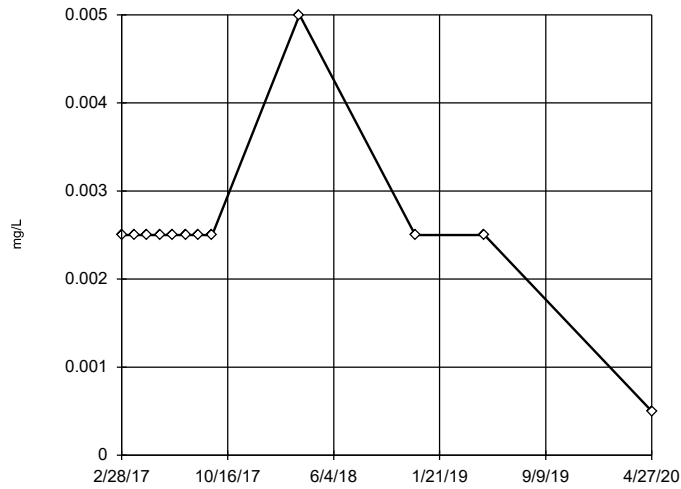
MW-U1 (bg)



n = 11
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
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.

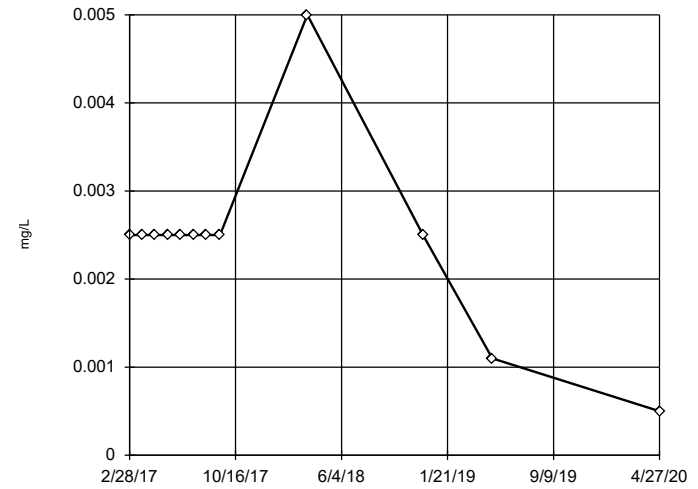
Constituent: Lead Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening
MW-D1



n = 12
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 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.

Tukey's Outlier Screening
MW-D2

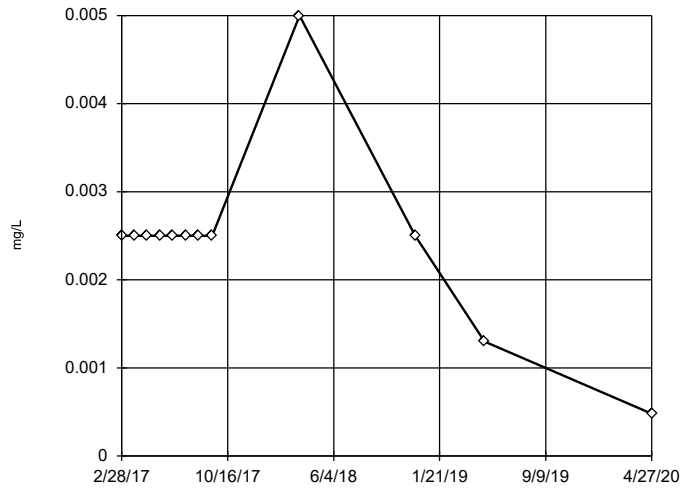


n = 12
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lithium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

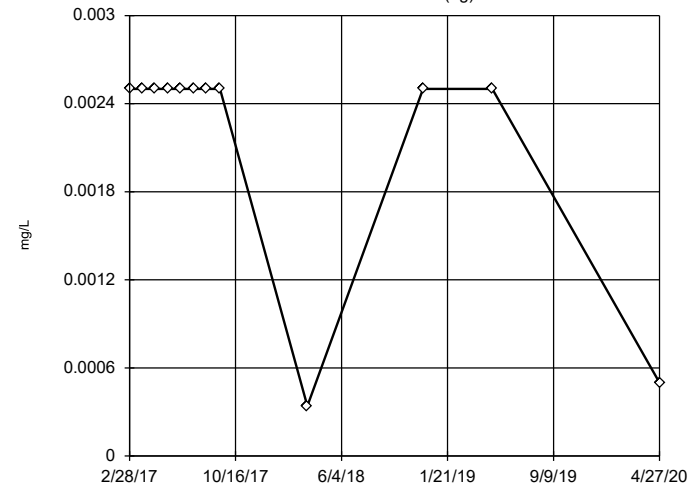
Constituent: Lithium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening
MW-D3



n = 12
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Tukey's Outlier Screening
MW-U1 (bg)

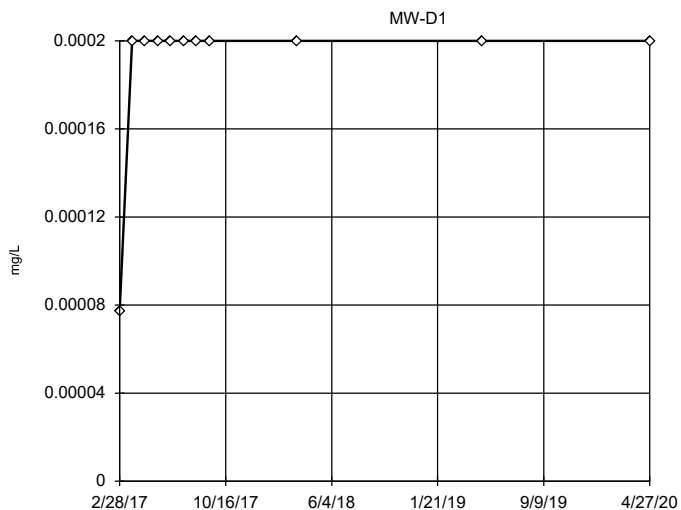


n = 12
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lithium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Constituent: Lithium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening



n = 11

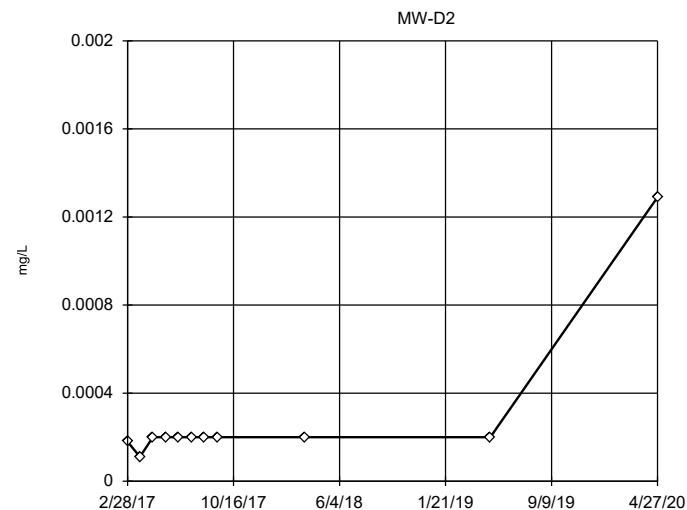
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

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: Mercury Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening



n = 11

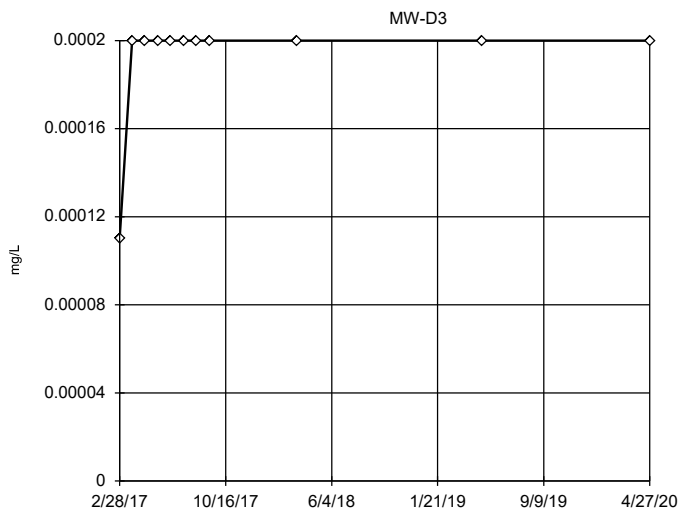
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

Data were natural log 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 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening



n = 11

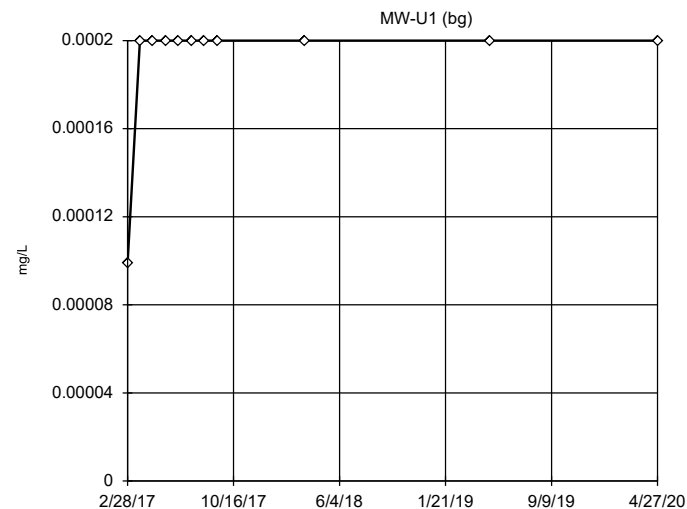
No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

Data were natural log 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 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening



n = 11

No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

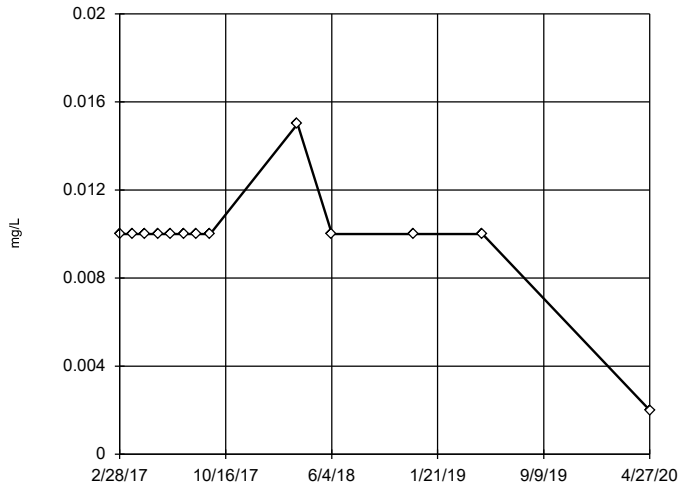
Data were cube transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D1

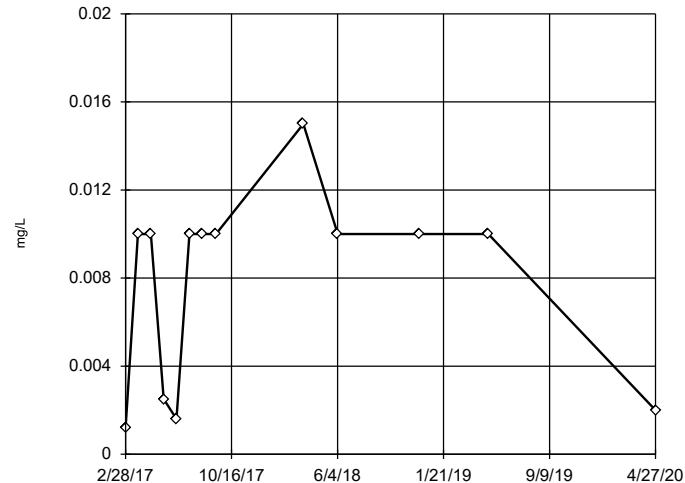


n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D2

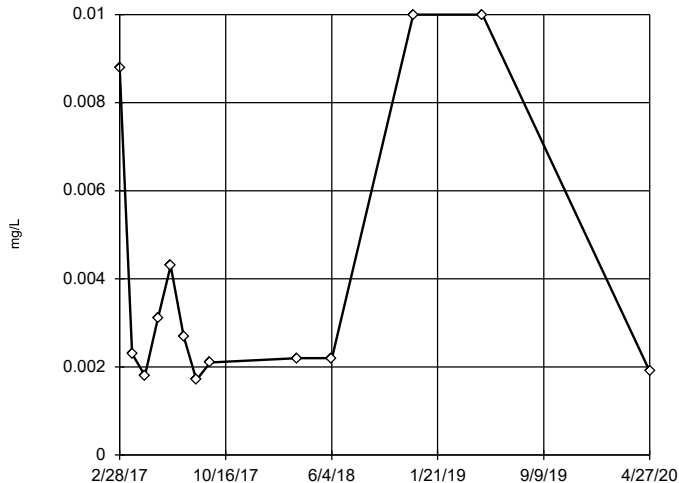


n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.01961, low cutoff = -0.01672, based on IQR multiplier of 3.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

MW-D3

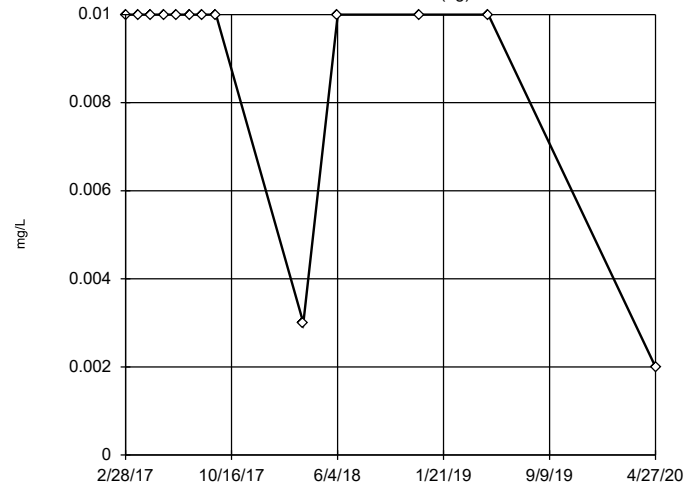


n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.1797, low cutoff = 0.00006839, based on IQR multiplier of 3.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening

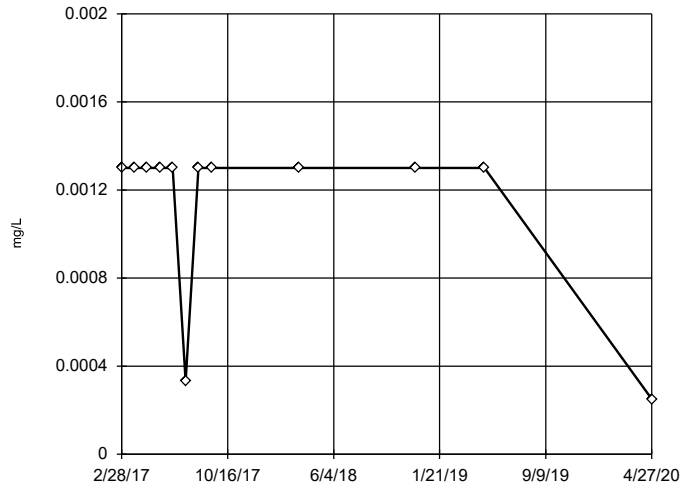
MW-U1 (bg)



n = 13
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 thr
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

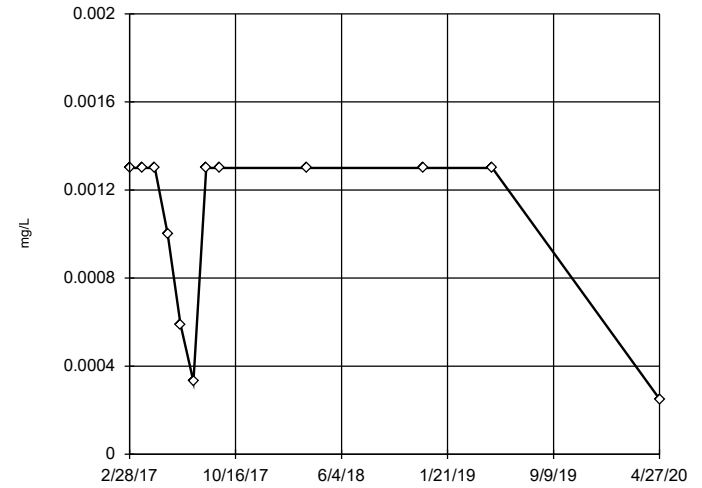
Tukey's Outlier Screening
MW-D1



n = 12
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

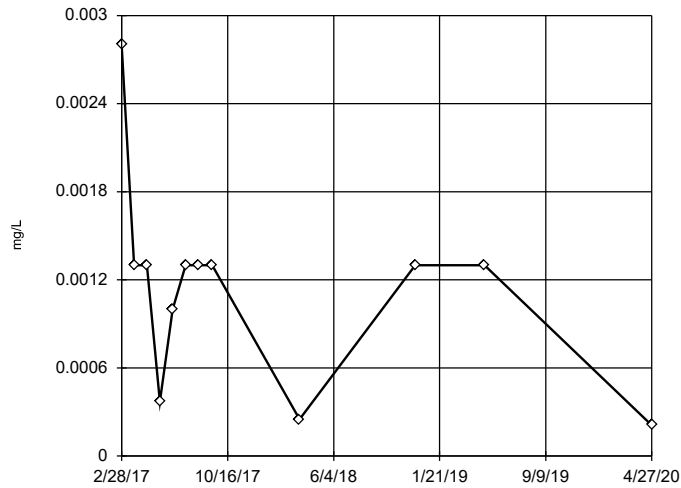
Tukey's Outlier Screening
MW-D2



n = 12
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 0.002815, low cutoff = -0.00072, based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

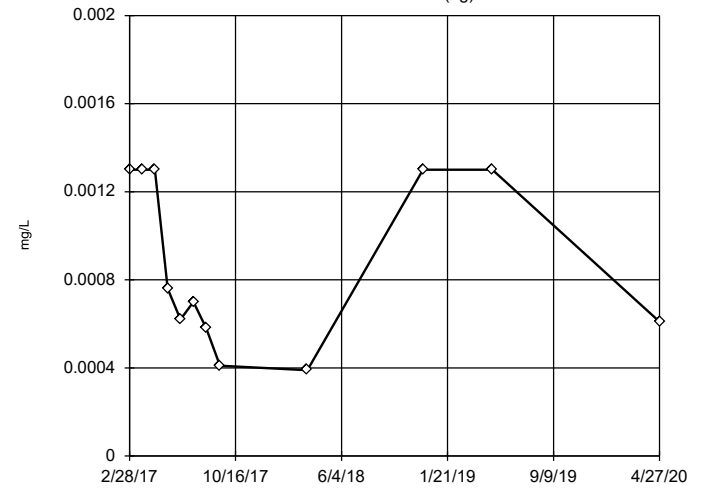
Tukey's Outlier Screening
MW-D3



n = 12
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.004615, low cutoff = -0.00004161, based on IQR multiplier of 3.

Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

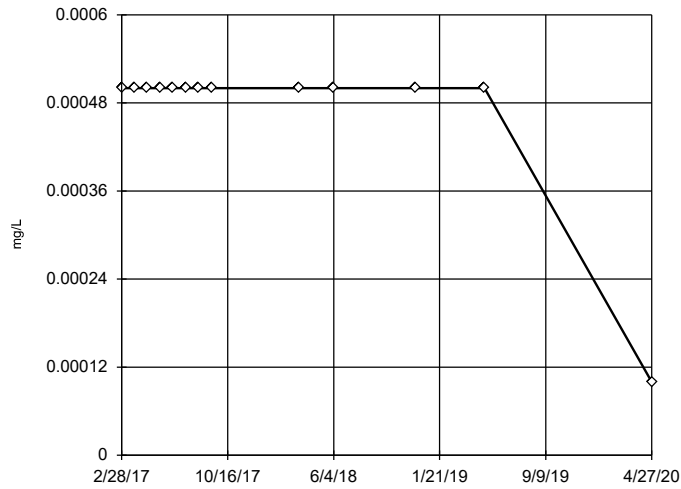
EPA 1989 Outlier Screening
MW-U1 (bg)



n = 12
 No statistical outliers. Mean = 0.0008038, std. dev. = 0.0003839, critical Tn = 2.285
 Normality test used: Shapiro Wilk(alpha = 0.01) Calculated = 0.8424 Critical = 0.805 (after natural log transformation) The distribution was found to be log-normal.

Constituent: Selenium Analysis Run 6/10/2020 1:01 PM View: Sanitas_StatisticsSamplingEvents 1 through CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

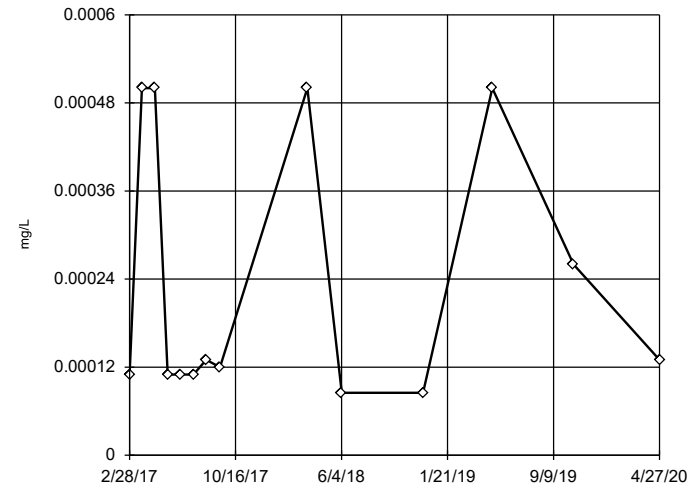
Tukey's Outlier Screening MW-D1



n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 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 6/10/2020 1:02 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

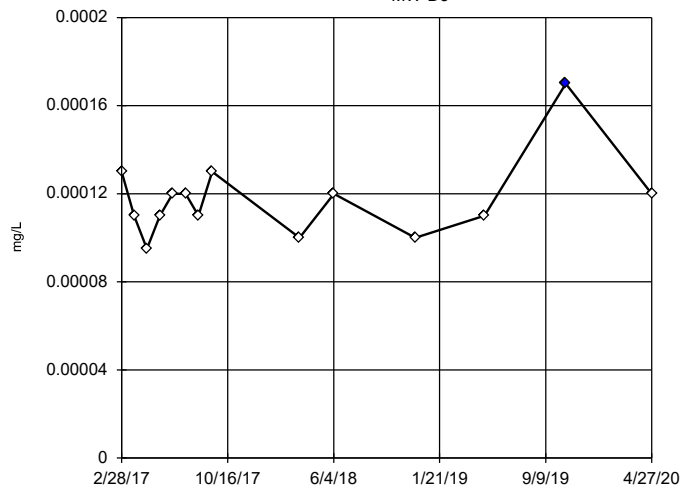
Tukey's Outlier Screening MW-D2



n = 14
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.04696, low cutoff = 0.000001171, based on IQR multiplier of 3.

Constituent: Thallium Analysis Run 6/10/2020 1:02 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

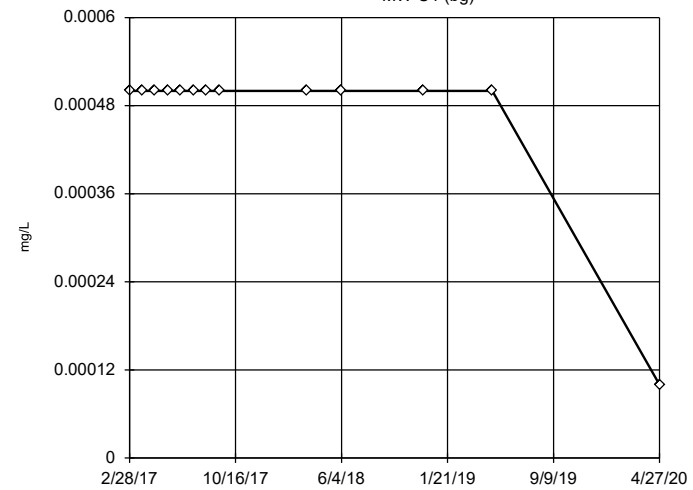
EPA 1989 Outlier Screening MW-D3



n = 14
 Statistical outlier is drawn as solid.
 Mean 0.0001175, std. dev. 0.00001848, critical Tn 2.371. After removing suspect data: mean 0.0001135, std. dev. 0.00001107, Tn 2.331.
 Normality test used: Shapiro Wilk @ alpha = 0.01
 Calculated = 0.9268
 Critical = 0.814
 The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Thallium Analysis Run 6/10/2020 1:02 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tukey's Outlier Screening MW-U1 (bg)



n = 13
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 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.

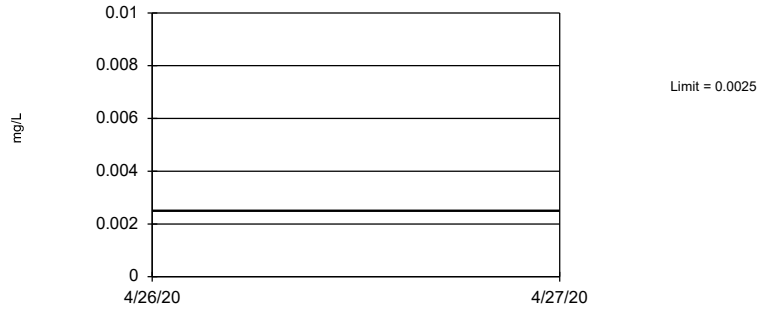
Constituent: Thallium Analysis Run 6/10/2020 1:02 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 6/10/2020, 12:56 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0013	n/a	n/a	n/a	13	84.62	n/a	0.5133	NP Inter(NDs)
Barium (mg/L)	n/a	0.003562	n/a	n/a	n/a	14	0	No	0.01	Inter
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	11	100	n/a	0.5688	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0051	n/a	n/a	n/a	12	0	n/a	0.5404	NP Inter(normal...
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	13	100	n/a	0.5133	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	0.6604	n/a	n/a	n/a	14	21.43	No	0.01	Inter
Fluoride (mg/L)	n/a	0.08188	n/a	n/a	n/a	14	7.143	No	0.01	Inter
Lead (mg/L)	n/a	0.0013	n/a	n/a	n/a	11	90.91	n/a	0.5688	NP Inter(NDs)
Lithium (mg/L)	n/a	0.0025	n/a	n/a	n/a	12	91.67	n/a	0.5404	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	11	90.91	n/a	0.5688	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	13	100	n/a	0.5133	NP Inter(NDs)
Selenium (mg/L)	n/a	0.001107	n/a	n/a	n/a	12	41.67	sqrt(x)	0.01	Inter
Thallium (mg/L)	n/a	0.0005	n/a	n/a	n/a	13	100	n/a	0.5133	NP Inter(NDs)

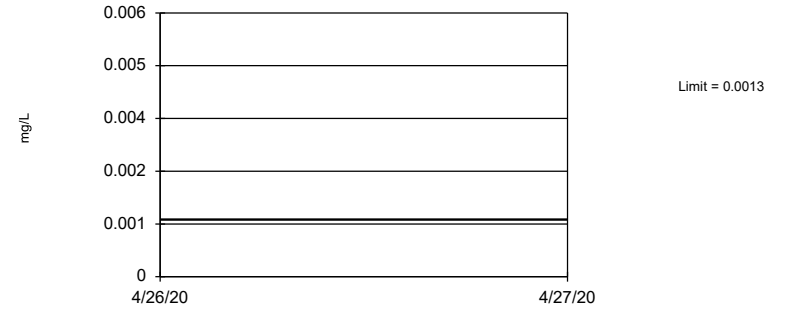
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Antimony Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

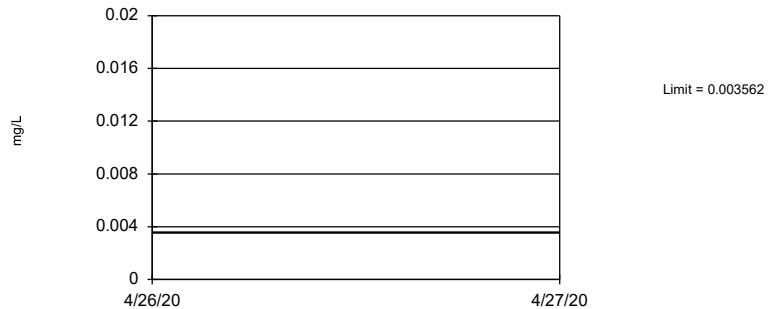
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 84.62% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Arsenic Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

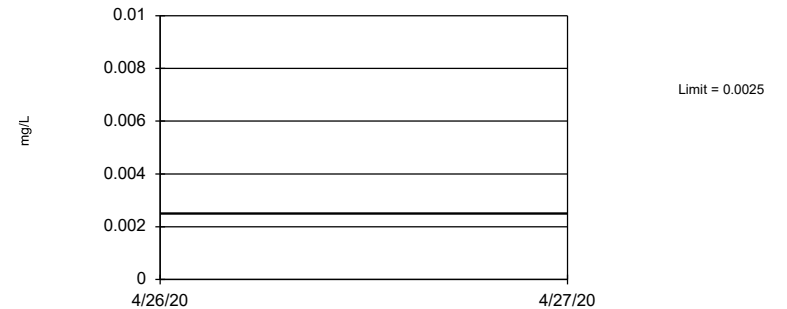
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.002264, Std. Dev.=0.0004069, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8478, critical = 0.825. Report alpha = 0.01.

Constituent: Barium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

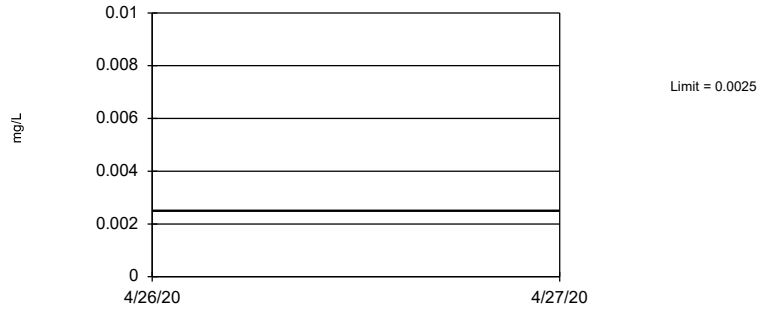
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Beryllium Analysis Run 6/10/2020 12:53 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

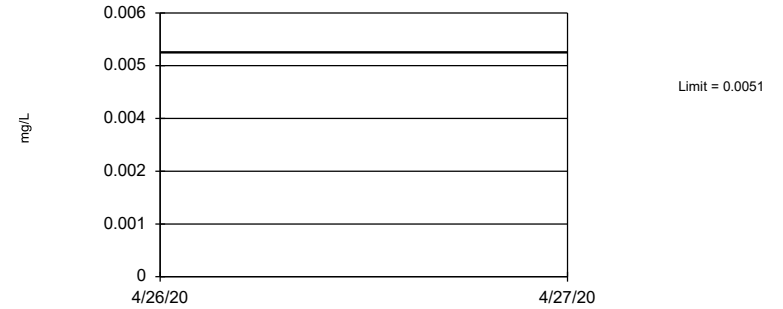
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Cadmium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

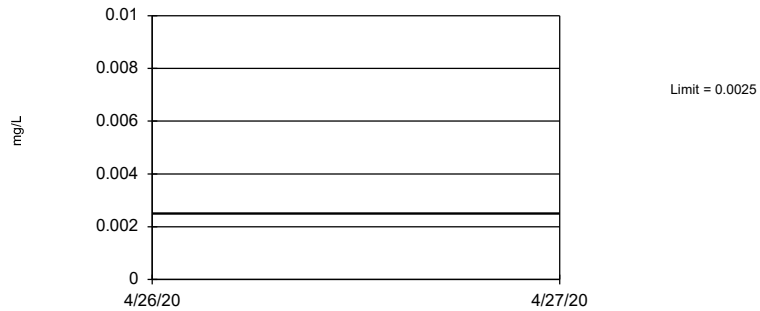
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 68.16% coverage at alpha=0.01; 77.93% coverage at alpha=0.05; 94.34% coverage at alpha=0.5. Report alpha = 0.5404.

Constituent: Chromium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

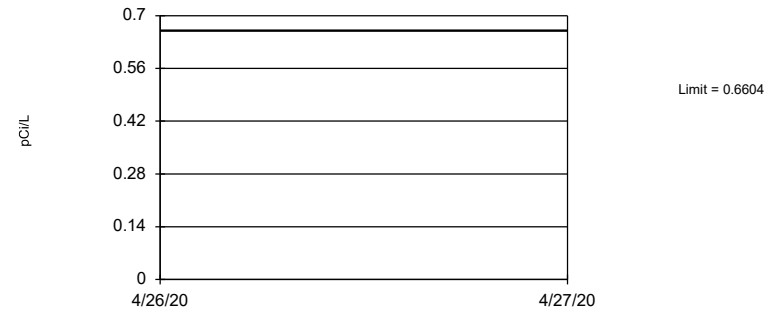
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Cobalt Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

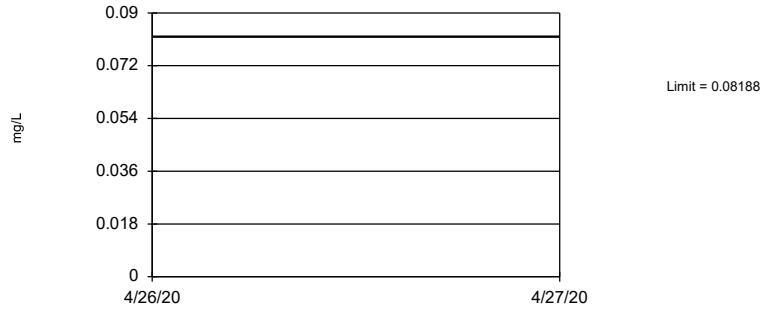
Tolerance Limit
Interwell Parametric



95% coverage. Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1366, Std. Dev.=0.1643, n=14, 21.43% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9427, critical = 0.825. Report alpha = 0.01.

Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSam
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

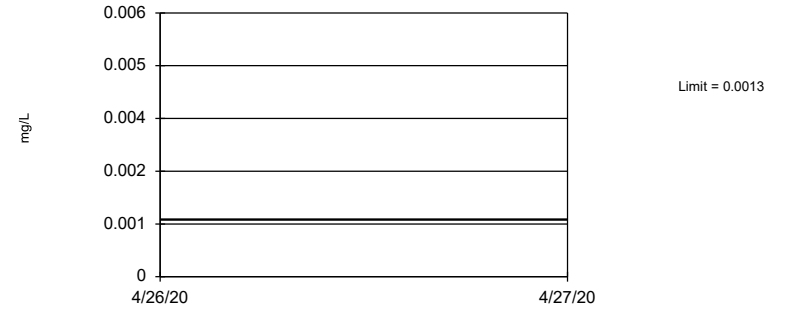
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.05486, Std. Dev.=0.008475, n=14, 7.143% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8801, critical = 0.825. Report alpha = 0.01.

Constituent: Fluoride Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

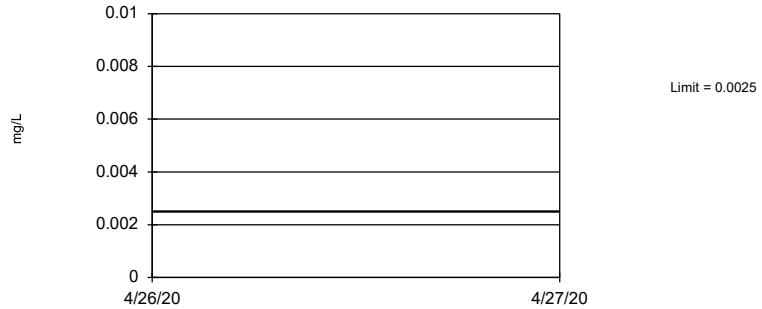
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Lead Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

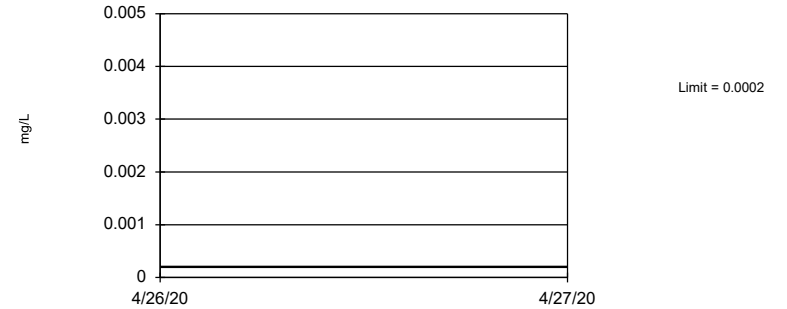
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. 68.16% coverage at alpha=0.01; 77.93% coverage at alpha=0.05; 94.34% coverage at alpha=0.5. Report alpha = 0.5404.

Constituent: Lithium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. 65.82% coverage at alpha=0.01; 75.98% coverage at alpha=0.05; 93.95% coverage at alpha=0.5. Report alpha = 0.5688.

Constituent: Mercury Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

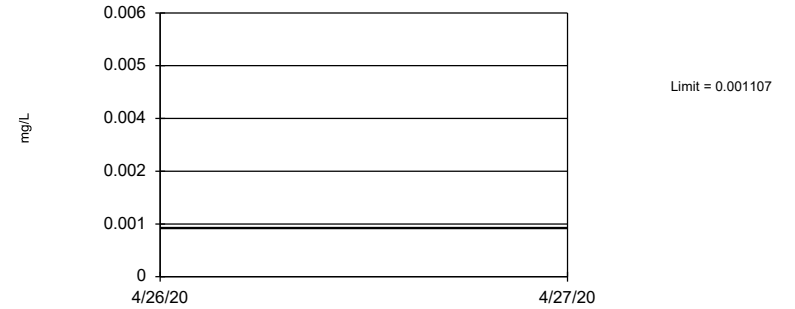
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Molybdenum Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 th
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

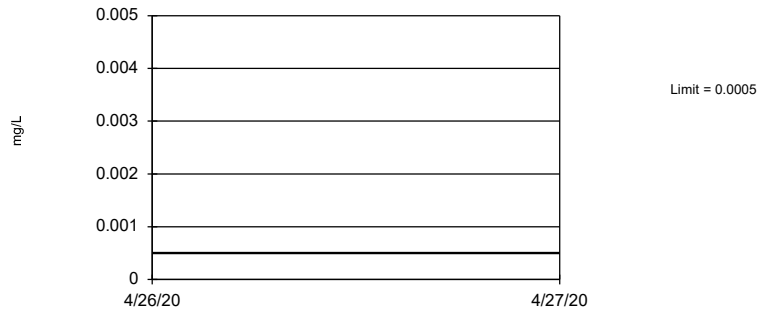
Tolerance Limit
Interwell Parametric



95% coverage. Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.02396, Std. Dev.=0.002731, n=12, 41.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8231, critical = 0.805. Report alpha = 0.01.

Constituent: Selenium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 thro
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. 70.12% coverage at alpha=0.01; 79.49% coverage at alpha=0.05; 94.73% coverage at alpha=0.5. Report alpha = 0.5133.

Constituent: Thallium Analysis Run 6/10/2020 12:54 PM View: Sanitas_StatisticsSamplingEvents 1 throug
CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

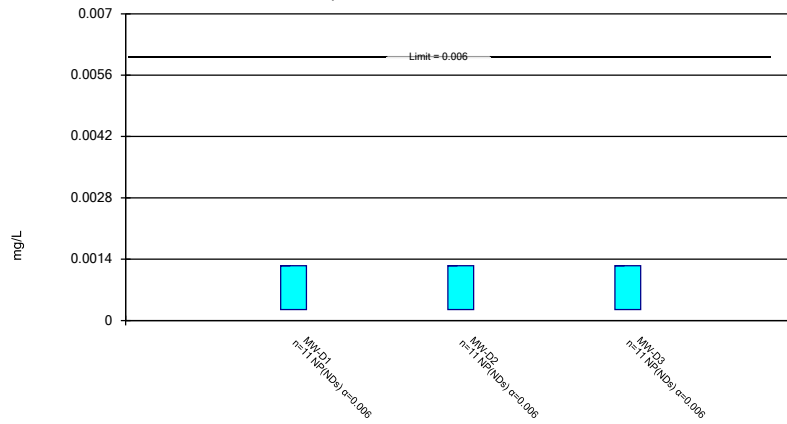
Confidence Interval

CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10 Printed 6/10/2020, 1:07 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-D1	0.00125	0.00025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-D2	0.00125	0.00025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-D3	0.00125	0.00025	0.006	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-D1	0.00065	0.000125	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-D2	0.00083	0.00048	0.01	No	13	69.23	No	0.01	NP (normality)
Arsenic (mg/L)	MW-D3	0.001041	0.0005874	0.01	No	14	14.29	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-D1	0.015	0.0099	2	No	14	0	No	0.01	NP (normality)
Barium (mg/L)	MW-D2	0.1575	0.1206	2	No	14	0	No	0.01	Param.
Barium (mg/L)	MW-D3	0.2028	0.1402	2	No	14	0	No	0.01	Param.
Beryllium (mg/L)	MW-D1	0.001	0.0002	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-D2	0.001	0.0002	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-D3	0.001	0.0002	0.004	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-D1	0.0005	0.0001	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-D2	0.0005	0.000075	0.005	No	11	90.91	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-D3	0.0005	0.000071	0.005	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-D1	0.0034	0.00025	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	MW-D2	0.0038	0.00025	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	MW-D3	0.0029	0.00025	0.1	No	12	91.67	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D1	0.00125	0.00025	0.0025	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D2	0.00125	0.001	0.0025	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-D3	0.001436	0.0009522	0.0025	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D1	0.4582	0.1739	5	No	14	14.29	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D2	0.6698	0.2096	5	No	14	21.43	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-D3	0.7936	0.3049	5	No	14	14.29	No	0.01	Param.
Fluoride (mg/L)	MW-D1	0.08716	0.05498	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	MW-D2	0.061	0.05	4	No	14	0	No	0.01	NP (normality)
Fluoride (mg/L)	MW-D3	0.12	0.1013	4	No	14	0	x^3	0.01	Param.
Lead (mg/L)	MW-D1	0.00065	0.000125	0.0013	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	MW-D2	0.00065	0.000125	0.0013	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	MW-D3	0.00065	0.000125	0.0013	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	MW-D1	0.0025	0.00025	0.0025	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	MW-D2	0.0025	0.0011	0.0025	No	12	91.67	No	0.01	NP (NDs)
Lithium (mg/L)	MW-D3	0.0013	0.00048	0.0025	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	MW-D1	0.0001	0.000077	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	MW-D2	0.00018	0.0001	0.002	No	11	72.73	No	0.006	NP (normality)
Mercury (mg/L)	MW-D3	0.0001	0.0001	0.002	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-D1	0.0075	0.001	0.01	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-D2	0.0075	0.0012	0.01	No	13	76.92	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-D3	0.005	0.0018	0.01	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Selenium (mg/L)	MW-D1	0.00065	0.00033	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	MW-D2	0.001	0.00033	0.05	No	12	75	No	0.01	NP (normality)
Selenium (mg/L)	MW-D3	0.001	0.00021	0.05	No	12	66.67	No	0.01	NP (normality)
Thallium (mg/L)	MW-D1	0.00025	0.00005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-D2	0.00025	0.000085	0.002	No	14	28.57	No	0.01	NP (normality)
Thallium (mg/L)	MW-D3	0.0001288	0.000105	0.002	No	14	0	ln(x)	0.01	Param.

Non-Parametric Confidence Interval

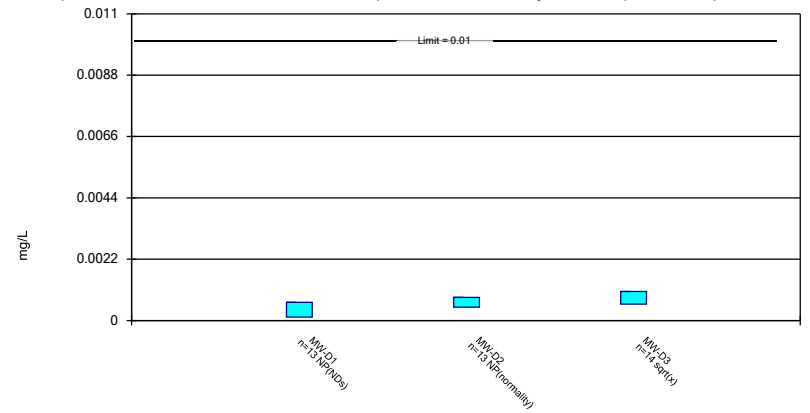
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

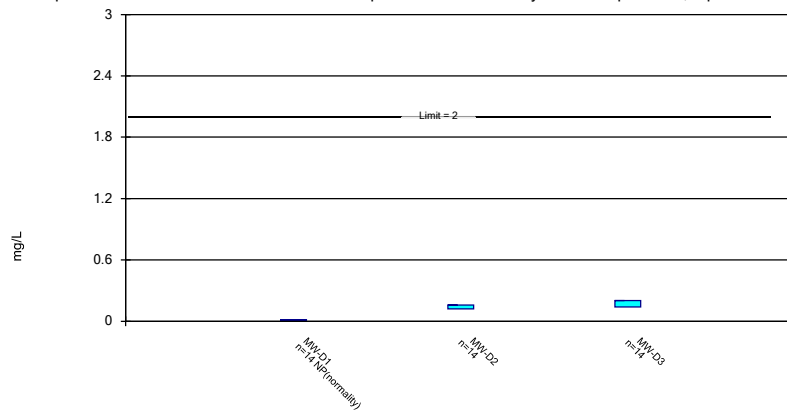
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

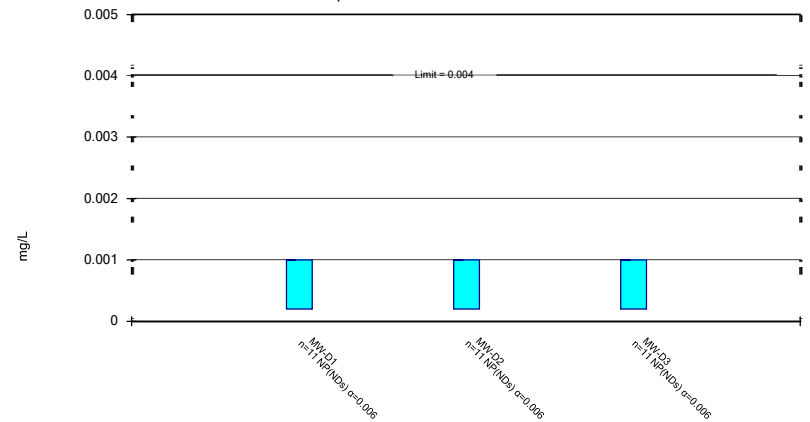
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

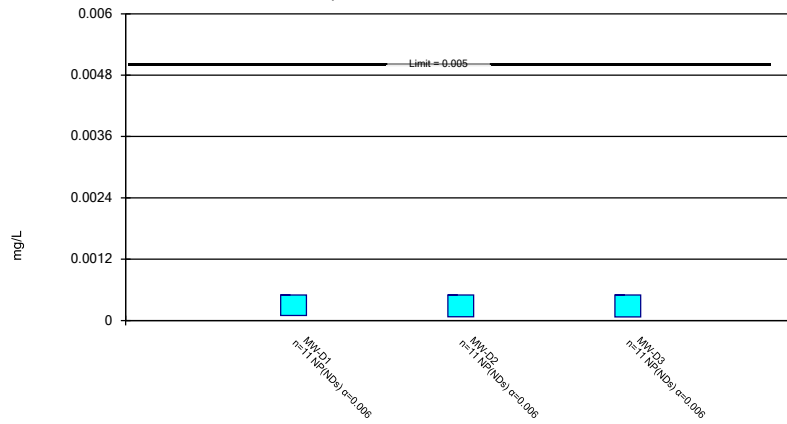
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 6/10/2020 1:05 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

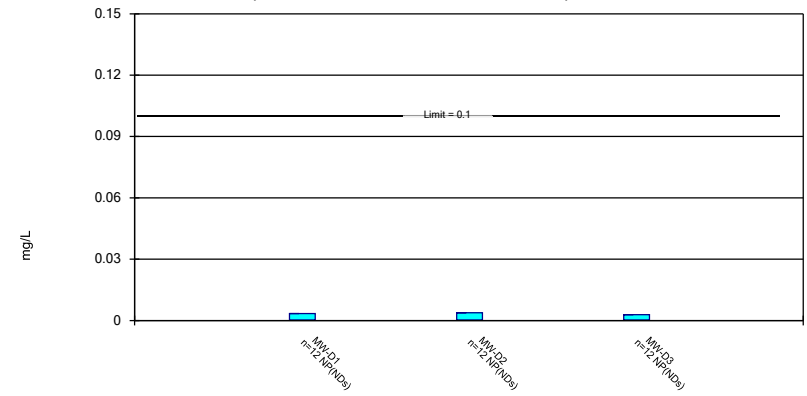
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

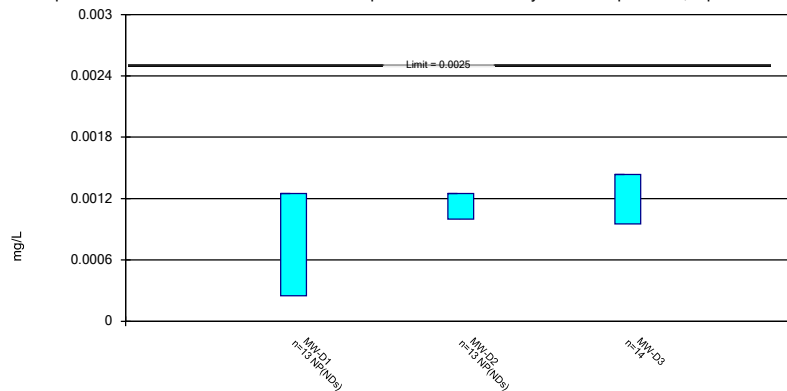
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

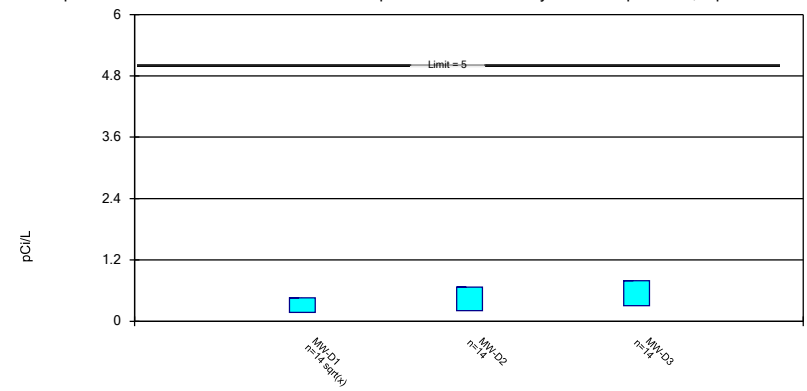
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 1
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric Confidence Interval

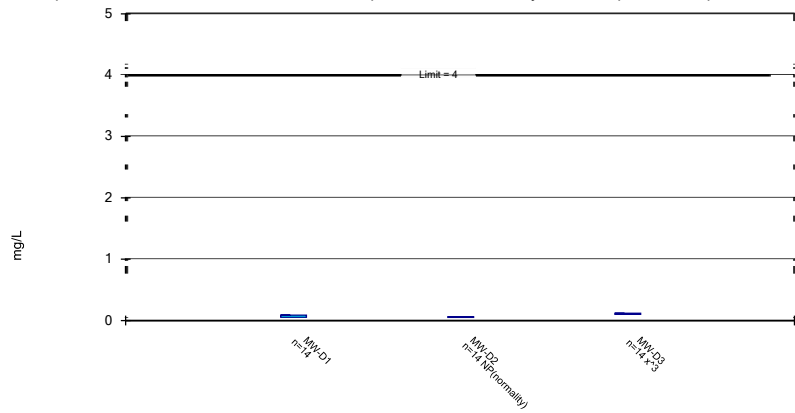
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamp
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

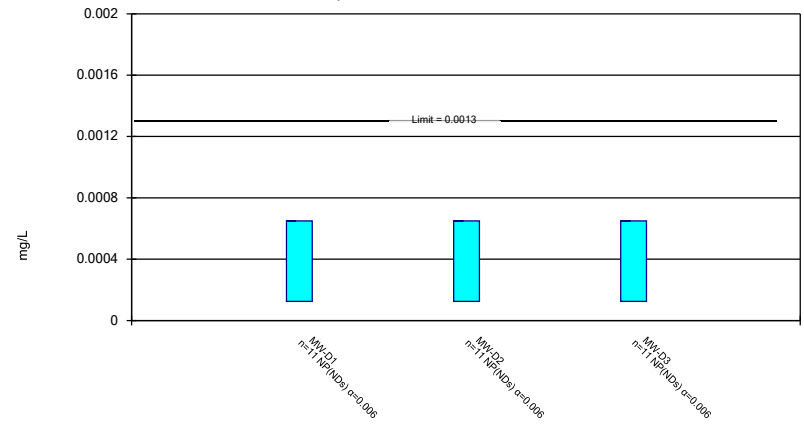
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

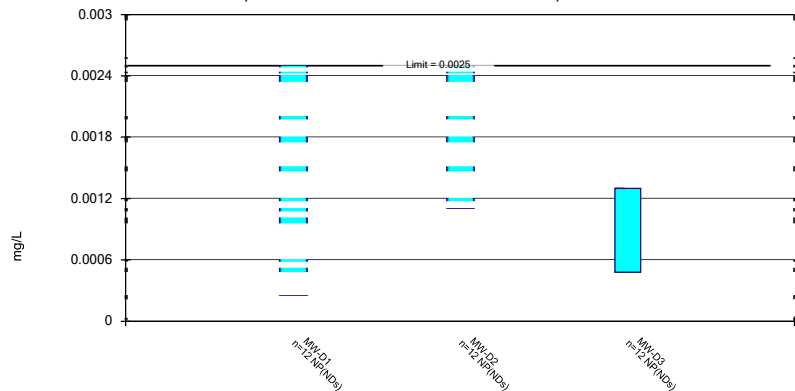
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 14
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

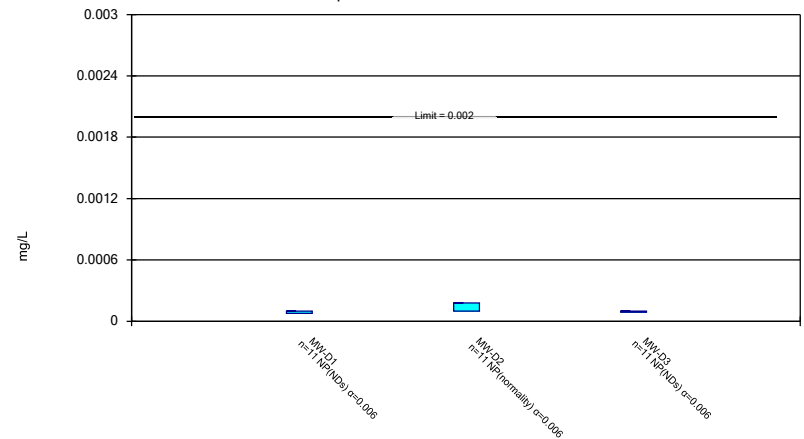
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

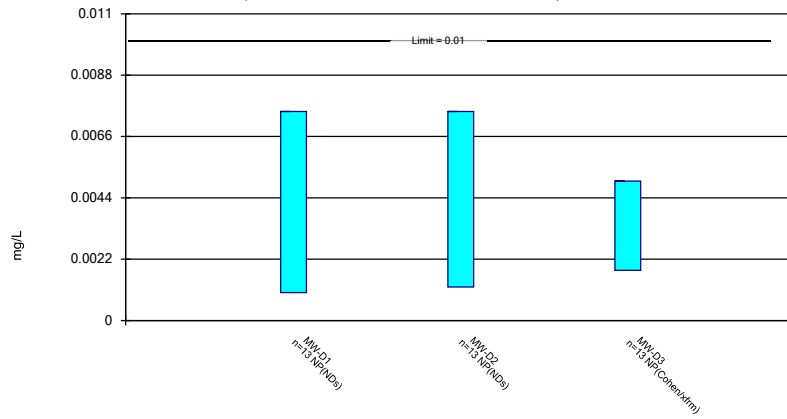
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through 10
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

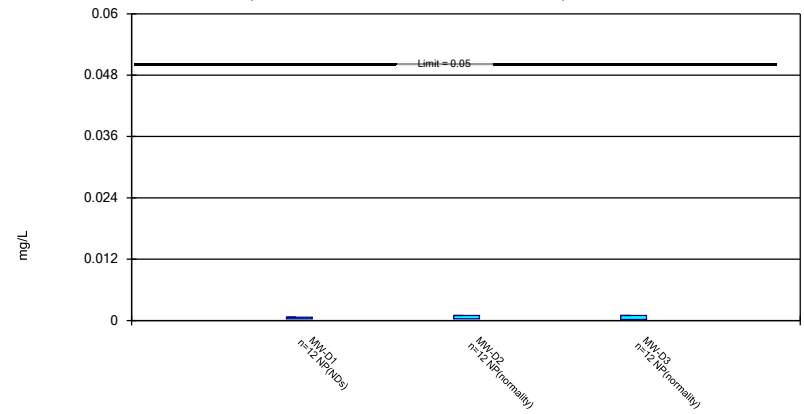
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 thr
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Non-Parametric Confidence Interval

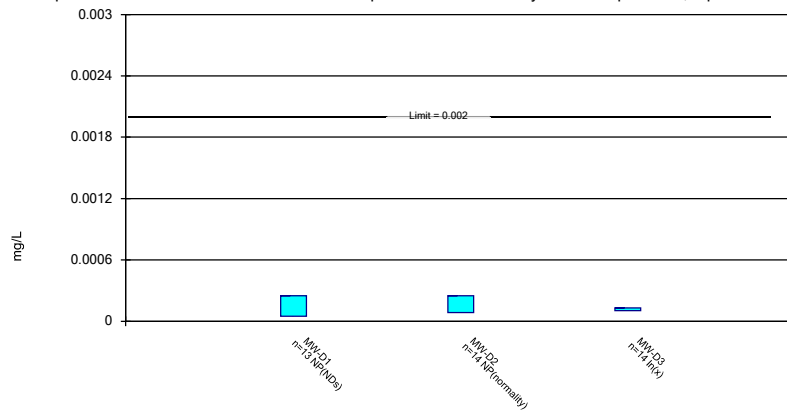
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 6/10/2020 1:06 PM View: Sanitas_StatisticsSamplingEvents 1 through
 CCPC Plant Crisp Ash Pond Site Client: Geosyntec Data: Sanitas_Statistics Sampling Events 1 through 10