2025 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT CLASS 3 LANDFILL CROSS GENERATING STATION

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1. Annual Groundwater Monitoring Report Summary

The South Carolina Public Service Authority (Santee Cooper) has prepared this 2025 Annual Groundwater Monitoring Corrective Action Report for the Class 3 Landfill at the Cross Generating Station (CGS). This 2025 Annual Report was prepared to comply with the United States Environmental Protection Agency (EPA) Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities, Title 40 Code of Federal Regulations (CFR) Part 257, Subpart D dated April 17, 2015 (CCR Rule), specifically subsection § 257.90(e)(1) through (6).

The CGS Class 3 Landfill began operations and placement of CCR in December 2015 in accordance with permits and plans approved by the South Carolina Department of Health and Environmental Control (SCDHEC), currently the South Carolina Department of Environmental Services (SCDES). The Class 3 Landfill is an existing CCR landfill that is located immediately adjacent to and abuts the eastern slope of the closed Class 2 Landfill. The Class 2 Landfill top deck and east and west slopes are covered by a high-density polyethylene (HDPE) liner that also serves as the bottom liner of the Class 3 Landfill. In addition to the federal CCR Rule groundwater monitoring program discussed throughout, a SCDES-approved groundwater monitoring program is also being implemented to comply with the Class 3 Landfill SCDES Permit #LF3-00007.

In accordance with § 257.90(e)(6), an overview of the current status of the Federal CCR Rule groundwater monitoring and corrective action programs for the CCR unit is provided below:

At the start of the current annual reporting period (January 1, 2025), the CGS Class 3 Landfill continued to operate under a detection monitoring program in accordance with § 257.94. An initial successful alternate source demonstration (ASD) was certified in April 2018 which concluded the closed Class 2 Landfill, located immediately adjacent to and upgradient of the Class 3 Landfill, is responsible for the Appendix III statistically significant increases (SSIs). A second ASD certified in March 2023 concluded that the closed Class 2 Landfill continued to be an alternate source.

No SSIs were identified during the January 2025 sampling event. However, SSIs for sulfate at CLF1B-1 and CLF1B-2 during the June 2025 sampling event prompted verification sampling in August. An SSI for sulfate was identified for CLF1B-1. Statistical results and trends in concentrations will continue to be evaluated during subsequent sampling events; however, based on these results, an ASD will be completed for sulfate at the Class 3 Landfill.

At the end of the current annual reporting period (December 31, 2025), the Class 3 Landfill remained in detection monitoring, pending the outcome of a subsequent ASD to be completed February 2026.

To report on the activities conducted during the prior calendar year and document progress complying with the CCR Rule, the specific requirements listed in § 257.90(e)(1) through (5) are provided in the next section in bold/italic type followed by a short narrative stating how that specific requirement was met.

2. 40 CFR § 257.90 Applicability

2.1 40 CFR § 257.90(a) and (c)

All CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under § 257.90 through § 257.98.

Once a groundwater monitoring system and groundwater monitoring program has been established at the CCR unit as required by this subpart, the owner or operator must conduct groundwater monitoring and, if necessary, corrective action through the active life and post-closure care period of the CCR unit.

The CGS Class 3 Landfill is subject to the groundwater monitoring and corrective action requirements set forth by the EPA in § 257.90 through § 257.98. This document satisfies the requirement under § 257.90(e) which requires the CCR Landfill Owner/Operator to prepare an Annual Groundwater Monitoring and Corrective Action Report.

2.2 40 CFR § 257.90(–) - SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. […] For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).

This Annual Report documents the activities completed in 2025 for the CGS Class 3 Landfill as required by the Groundwater Monitoring and Corrective Action regulations. Groundwater sampling and analysis was conducted per the requirements of § 257.93, and the status of the groundwater monitoring program, set forth in § 257.94, is provided in this report.

2.2.1 Status of the Groundwater Monitoring Program and Corrective Action Program

SSIs of Appendix III constituents were initially identified downgradient of the Class 3 Landfill, and the notification was provided on January 15, 2018. Because this relatively new and fully lined landfill first received waste in 2015, an evaluation of alternate sources was conducted, and the successful ASD was certified in April 2018. The ASD concluded that the closed Class 2 Landfill, located immediately adjacent to and upgradient of the Class 3 Landfill, was responsible for the Appendix III SSIs. The Class 2 Landfill was a physical and pre-existing alternate source which began receiving waste over 40 years ago, well before construction and operations of the Class 3 Landfill. Groundwater impacts associated with the now closed Class 2 landfill were monitored under the state landfill permit compliance program prior to the CCR Rule and well before construction of the Class 3 Landfill.

In 2022, an SSI of chloride was identified in monitoring wells CLF1B-2 and CLF1B-4 during both the January and June 2022 sampling events, which was consistent with historical findings. New SSIs of boron were

identified in monitoring wells CLF1B-3 and CLF1B-5 and for fluoride in monitoring well CLF1B-3 for the June 2022 sampling event based on an intrawell statistical analysis; however, boron in monitoring well CLF1B-5 and fluoride in monitoring well CLF1B-3 are not SSIs when based on an interwell statistical analysis. Also of note, all analytical results for fluoride remained below the MCL of 4.0 mg/L for all Class 3 Landfill CCR wells. Again, groundwater conditions observed following construction of the Class 3 Landfill are generally consistent with the pre-construction groundwater conditions observed at the closed Class 2 Landfill and with the current successful ASD and are not necessarily indicative of a release from the Class 3 Landfill. However, because of the new SSIs in several groundwater monitoring wells, an evaluation of the original 2018 ASD was conducted within 90 days of completing the second 2022 statistical analysis. The goal of this evaluation was to incorporate additional lines of evidence and a more robust hydrogeology assessment, evaluate the possibility of additional contributing sources, and validate the findings of the initial 2018 ASD. A second successful ASD certified in March 2023 concluded that the Class 2 Landfill continues to be an alternate source. Additionally, previously existing temporary gypsum storage areas which were in close proximity to the Class 3 Landfill were an additional alternate source. Based on calculated groundwater flow velocity and levels of constituent concentrations, elevated Appendix III concentrations could continue to flow through the Class 3 Landfill monitoring wells until 2043.

For both of the January and June sampling events in 2025, Appendix III constituent detections from downgradient well samples were compared to their respective GWPS using intrawell comparisons. No SSIs were identified during the January 2025 sampling event. Exceedance of sulfate at CLF1B-1 and CLF1B-2 during the June 2025 sampling event prompted verification sampling in August. An SSI for sulfate was identified for CLF1B-1, as it was over the UPL. These sulfate concentrations are below unit-wide maximums (at downgradient wells CLF1B-3 and CLF1B-5), and sulfate has an SSI trend in the overall and recent dataset for these wells. An SSI for sulfate was not identified for CLF1B-2, as it was less than the UPL. Upgradient background well CBW-1 exhibits significantly higher maximum sulfate concentrations, and sulfate does not have a statistically significant trend in the overall or recent dataset. Statistical results and trends in concentrations will continue to be evaluated during subsequent sampling events; however, based on these results, an ASD will be completed for sulfate at the Class 3 Landfill (February 2026). If the ASD successfully determines that the Class 3 Landfill SSIs are due to an alternate source, the Class 3 Landfill will remain in detection monitoring.

2.2.2 Key Actions Completed

The following key actions were completed in 2025:

- Prepared 2024 Annual Report including:
  - The Annual Report was placed in the facility's operating record pursuant to § 257.105(h)(1);
  - Pursuant to § 257.106(h)(1), the notification was sent to the relevant State Director within 30 days of the Annual Report being placed in the facility's operating record [§ 257.106(d)];
  - Pursuant to § 257.107(h)(1), the Annual Report was posted to the CCR Website within 30 days of the Annual Report being placed in the facility's operating record [§ 257.107(d)].
- Collected and analyzed two (2) rounds of groundwater monitoring results (January and June) in accordance with § 257.94 and recorded the concentrations in the facility's operating record as required by § 257.94(f). Groundwater monitoring results are summarized in Table 1 and Laboratory Analytical Results are provided in Appendix B.
- Completed statistical evaluations associated with the January 2025 and June 2025 sampling events to determine statistically significant increases for Appendix III constituents in accordance with § 257.93(h)(2). Statistical results are summarized in Appendix A.

- Based on the statistical results with an SSI for sulfate at groundwater monitoring well CLF1B-1, an ASD was initiated for sulfate at the Class 3 Landfill.
- Updated the statistical upper tolerance limits for background wells PM-1 and CBW-1 after the first semi-annual sampling event of 2025 in accordance with the Unified Guidance.
- Continued with potentiometric surface characterization of the uppermost aquifer given changing site conditions by completing sitewide synoptic water level measurements on an approximately quarterly basis to further evaluate temporal changes.
- Continued to evaluate turbidity, oxidation-reduction potential, and well screen submersion trends sitewide in wells and to identify wells to be redeveloped to remove buildup of sediment fines and suspected biofouling on the well screens. A submersible camera was also used where applicable to investigate wells with unsubmerged screens prior to redevelopment.
- The CGS Groundwater Monitoring Plan was updated in December 2025 to make general revisions and improvements to reflect changes in site conditions and procedures. It will continue to be revised as necessary.
- The CGS Sampling and Analysis Plan was updated in December 2025 to make general revisions and improvements to reflect changes in site conditions and procedures. It will continue to be revised as necessary.

2.2.3 Problems Encountered

No problems were encountered.

2.2.4 Actions to Resolve Problems

No actions were required.

2.2.5 Project Key Activities for Upcoming Year

Key activities to be completed in 2026 include the following:

- Prepare the 2025 annual report; place it in the record as required by § 257.105(h)(1); notify the Relevant State Director [§ 257.106(d)]; and post to the facility's publicly available CCR website [§ 257.107(d)].
- Conduct semi-annual groundwater monitoring and subsequent statistical analysis as required by § 257.94 and in accordance with the CGS GMP.
- Conduct semi-annual groundwater monitoring consistent with § 257.98(a)(1) and § 257.95(d)(1) and in accordance with the CGS GMP.
- Complete statistical evaluations of the sampling events to determine statistically significant exceedances of GWPS for Appendix IV in accordance with § 257.93(h)(2).
- Based on the 2025 statistical results identifying an SSI for sulfate at groundwater monitoring well CLF1B-1, an ASD will be completed for sulfate at the Class 3 Landfill in February 2026.
- Continue potentiometric surface characterization of the uppermost aquifer given changing site conditions.
- In 2026, wells will be further evaluated. If improvement is still not made, then more aggressive development methods (both mechanical and chemical) may be conducted and reported in the 2026 Annual Report.
- Update the Statistical Data Analysis Plan

2.3 40 CFR § 257.90(E) – INFORMATION

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.3.1 40 CFR § 257.90(e)(1)

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

As required by § 257.90(e)(1), a map showing the locations of the CCR unit and associated upgradient and downgradient monitoring wells for the Class 3 Landfill is presented as Figure 1.

2.3.2 40 CFR § 257.90(e)(2)

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

No wells for groundwater monitoring of constituent concentrations were decommissioned in 2025.

2.3.3 40 CFR § 257.90(e)(3)

In addition to all the monitoring data obtained under § 257.90 through § 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

In accordance with § 257.94(b) and § 257.94(d), at least two independent samples from each background and downgradient monitoring well were collected and analyzed. A summary table including the sample names, dates of sample collection, reason for sample collection (e.g., detection), and monitoring data obtained for the groundwater monitoring program for the Class 3 Landfill is presented in Table 1 of this report. In addition, as required by § 257.95(d)(3), Table 1 includes the groundwater protection standards established under § 257.95(d)(2). Laboratory analytical data reports, along with field sampling forms, are provided in Appendix B to this report.

2.3.4 40 CFR § 257.90(e)(4)

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

For 2025, there has been no transition between monitoring programs. As noted previously, one SSI was identified for sulfate at CLF1B-1 for only the June 2025 sampling event. This corresponds to observed increasing concentrations in downgradient wells as discussed in the 2018 and 2023 ASDs. Findings of the most recent ASD concluded SSIs identified in 2022 were the result of physical and pre-existing alternative sources, specifically the CGS Class 2 Landfill, which began receiving waste 40 years ago, and possible residual impacts from temporary gypsum marketing storage areas which no longer exist. Based on

calculated groundwater flow velocity and levels of constituent concentrations, elevated concentrations could continue to flow through the Class 3 Landfill monitoring wells until 2043. The unit will continue in detection monitoring pending results from the ASD for sulfate which will be completed February 2026.

2.3.5 40 CFR § 257.90(e)(5)

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

This Annual Report documents activities conducted to comply with Sections § 257.90 through § 257.94 of the CCR Rule. There are no applicable requirements from Sections § 257.95 through § 257.98.

Groundwater flow rate and direction are provided as Figures 2, 3, 4, and 5 for each synoptic water level event as specified in § 257.93(c).

TABLES

Table 1 - Summary of Analytical Results
Cross Generating Station Class 3 Landfill Detection Monitoring 2025

					Appendix III Constituents							Field Parameters							
Well ID	Purpose	Date of Sample Event	Laboratory Sample ID Number		Boron	Calcium	Chloride	Fluoride	Sulfate	Total Dissolved Solids	pH	Depth to Groundwater	Groundwater Elevation	pH	Specific Conductivity	Temperature	Oxidation Reduction Potential	Turbidity	Dissolved Oxygen
				Unit	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	SU	Feet	Feet	SU	uS	C	mv	NTU	ppm
				Method	EPA 6010D	EPA 6020B	EPA 300.0	EPA 300.0	EPA 300.0	SM 2540C							SM2580		
				GWPS/ US EPA MCL/RSL	----	----	----	4.00	----	----	----	----	----	----	----	----	----	----	----
Site Background Wells																			
PM-1	Background	1/14/2025	AG21205		12.5	16.4	11.7	<0.1	21.4	117.5	5.20	8.46	74.78	5.20	115	17.08	8.00	7.90	1.54
PM-1	Background	6/3/2025	AG34934		13.4	20.3	11.2	<0.10	16.8	175.0	5.21	7.62	75.62	5.21	196	22.33	31.0	0.100	0.490
PM-1	total samples				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CBW-1	Background	1/14/2025	AG21166		21.9	23.2	3.46	0.134	76.9	115.0	4.68	10.95	74.85	4.68	147	18.05	315	0	2.90
CBW-1	Background	6/3/2025	AG34895		21.2	21.7	3.65	0.11	83.9	167.5	4.69	9.97	75.83	4.69	244	24.73	277	3.30	1.81
CBW-1	total samples				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Class 3 Landfill Wells																			
CLF1B-1	Detection	1/27/2025	AG21198		16.1	201	29.4	0.12	191	672.5	6.58	8.11	75.65	6.58	692	15.67	92.0	2.20	3.04
CLF1B-1	Duplicate	1/27/2025	AG21199		16.7	201	29.3	0.11	190	692.5	***	***	***	***	***	***	***	***	***
CLF1B-1	Detection	6/9/2025	AG34919		15.2	201	32.1	<0.10	193	657.5	6.57	7.78	75.98	6.57	1050	20.25	11.0	1.60	1.30
CLF1B-1	Duplicate	6/9/2025	AG34920		15.2	199	32.5	<0.10	190	647.5	***	***	***	***	***	***	***	***	***
CLF1B-1	Confirmation	8/25/2025	AG44379		***	***	***	***	204	***	***	9.21	74.55	6.64	992	26.52	8.0	0	0.51
CLF1B-1	Duplicate	8/25/2025	AG44380		***	***	***	***	200	***	***	***	***	***	***	***	***	***	***
CLF1B-1	total samples				6	6	6	6	6	6	3	3	3	3	3	3	3	3	3
CLF1B-2	Detection	1/27/2025	AG21200		27.9	156	93.9	<0.1	22.0	645.0	6.99	6.47	75.57	6.99	561	15.89	24.0	3.30	1.72
CLF1B-2	Detection	6/9/2025	AG34921		27.3	156	97.6	<0.10	22.7	627.5	6.81	6.18	75.86	6.81	861	20.85	-74.0	48.5	0.470
CLF1B-2	Confirmation	8/25/2025	AG44381		***	***	***	***	21.8	***	***	7.75	74.29	6.86	817	25.66	-108	8.9	0.36
CLF1B-2	total samples				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CLF1B-3	Detection	1/27/2025	AG21201		101	188	22.5	0.19	205	620.0	6.92	7.19	75.56	6.92	624	13.83	-18	13.9	1.74
CLF1B-3	Detection	6/9/2025	AG34922		98.9	209	37.3	0.11	231	690.0	6.72	7.03	75.72	6.72	1030	22.88	-102	4.50	0.610
CLF1B-3	total samples				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CLF1B-4	Detection	1/27/2025	AG21202		29.8	140	93.3	<0.1	31.9	612.5	7.14	7.04	75.7	7.14	552	14.03	425	5.60	2.79
CLF1B-4	Detection	6/9/2025	AG34923		30.9	153	95.6	<0.10	32.6	565.0	6.88	7.17	75.57	6.88	826	23.75	48.0	5.40	0.300
CLF1B-4	total samples				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CLF1B-5	Detection	1/27/2025	AG21203		29.5	300	167	<0.1	254	1235	6.89	5.16	75.93	6.89	1030	15.60	43.0	7.30	2.18
CLF1B-5	Detection	6/9/2025	AG34924		30.2	297	179	<0.10	268	1250	6.69	5.64	75.45	6.69	1410	27.58	-68.0	27.1	0.280
CLF1B-5	total samples				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Notes:

1. All groundwater samples collected from the monitoring wells were analyzed by South Carolina Certified laboratories: Santee Cooper Analytical Services (Certification # 08552), GEL Laboratories, LLC (Certification # 10120), Eurofins (Certification # 98001), Davis & Brown (Certification # 21117), Shealy Environmental Services, Inc (Certification # 32010), Test America Laboratories Inc. Savannah (Certification # 98001), Rogers & Callcot, Inc. (Certification # 23105001), and Pace Analytical Services LLC (Certification #99030).
2. All Background and downgradient compliance wells have been sampled to meet §257.94.
3. Due to challenges with laboratory delays, all groundwater samples were not analyzed by a single laboratory. This accounts for the majority of the reporting limit variability. Matrix interference also contributed to variable RLs.
4. Depth to groundwater is measured below the top of the casing (btoc) to the water surface. Elevation is shown relative to mean sea level (msl).
5. *** means not collected. Mainly pertinant for duplicate samples.

Table 2
Cross Generating Station
2025 Synoptic Water Levels for Groundwater Monitoring Wells

		1st Event - 1/13/2025		2nd Event - 4/22/2025		3rd Event - 6/2/2025		4th Event - 11/3/2025	
Well Name	TOC Elevation (ft msl)	Depth to Groundwater (ft btoc)	GW Elevation (ft msl)	Depth to Groundwater (ft btoc)	GW Elevation (ft msl)	Depth to Groundwater (ft btoc)	GW Elevation (ft msl)	Depth to Groundwater (ft btoc)	GW Elevation (ft msl)
PM-1	83.24	8.35	74.89	8.04	75.2	7.53	75.71	7.53	75.71
CBW-1	85.80	10.79	75.01	10.14	75.66	9.89	75.91	9.48	76.32
CAP-1	82.70	7.55	75.15	7.16	75.54	6.95	75.75	6.49	76.21
CAP-2	89.70	17.04	72.66	16.54	73.16	16.43	73.27	15.98	73.72
CAP-3	91.49	16.75	74.74	16.12	75.37	16.05	75.44	15.6	75.89
CAP-4	91.77	17.16	74.61	16.52	75.25	16.41	75.36	15.9	75.87
CAP-5	91.78	17.36	74.42	17.06	74.72	16.78	75.00	15.78	76
CAP-6	91.82	17.72	74.10	17.58	74.24	17.29	74.53	16.31	75.51
CAP-7	91.64	16.84	74.80	17.31	74.33	16.33	75.31	15.87	75.77
CAP-8	91.61	17.84	73.77	17.72	73.89	17.4	74.21	16.75	74.86
CAP-9	91.59	16.99	74.60	16.84	74.75	14.79	76.80	14.89	76.7
CAP-10	95.68	21.89	73.79	21.66	74.02	21.39	74.29	20.98	74.7
CAP-11	95.55	20.14	75.41	19.61	75.94	18.66	76.89	19.02	76.53
CAP-12	98.33	23.80	74.53	23.46	74.87	23.24	75.09	22.94	75.39
CAP-13	80.77	5.86	74.91	6.51	74.26	5.47	75.30	4.89	75.88
CAP-14	80.77	6.32	74.45	6.61	74.16	5.91	74.86	5.05	75.72
CCMLF-1	80.86	6.36	74.50	5.84	75.02	6.05	74.81	5.29	75.572
CCMLF-1D	80.65	6.18	74.47	5.93	74.72	5.84	74.81	5.12	75.533
CCMLF-2	84.08	10.57	73.51	9.84	74.24	10.01	74.07	8.39	75.69
POZ-3	82.61	6.87	75.74	6.86	75.75	6.47	76.14	5.84	76.77
POZ-4	82.73	7.39	75.34	7.29	75.44	6.89	75.84	5.71	77.02
POZ-5D	82.49	7.57	74.92	7.44	75.05	7.08	75.41	5.91	76.58
POZ-6	83.84	8.66	75.18	8.71	75.13	8.09	75.75	6.81	77.03
POZ-7	82.02	6.59	75.43	6.65	75.37	6.42	75.60	5.61	76.41
POZ-8	83.13	8.20	74.93	8.03	75.10	7.67	75.46	6.56	76.57
CLF1B-1	83.76	8.54	75.22	8.16	75.60	7.95	75.81	7.39	76.37
CLF1B-2	82.04	6.87	75.17	6.61	75.43	6.36	75.68	5.75	76.29
CLF1B-3	82.75	7.84	74.91	7.5	75.25	7.16	75.59	6.49	76.26
CLF1B-4	82.74	7.69	75.05	7.73	75.01	7.28	75.46	6.35	76.39
CLF1B-5	81.09	6.16	74.93	6.34	74.75	5.81	75.28	4.7	76.39
CLF1B-5D	80.93	6.37	74.56	6.52	74.41	5.96	74.97	4.99	75.94
CCMAP-1	80.21	6.71	73.50	6.85	73.36	5.83	74.38	5.02	75.19
CCMAP-2	81.24	7.86	73.38	7.39	73.85	7.16	74.08	6.89	74.35
CCMAP-3	81.91	8.07	73.84	7.96	73.95	7.63	74.28	6.95	74.96
CCMAP-4	81.83	7.29	74.54	6.99	74.84	6.74	75.09	5.65	76.18
CCMAP-5	83.71	8.80	74.91	8.60	75.11	8.23	75.48	7.38	76.33
CCMAP-6	84.41	10.46	73.95	10.74	73.67	10.16	74.25	8.94	75.47
CCMAP-7	81.57	8.09	73.48	7.6	73.97	7.45	74.12	7.24	74.33
CCMAP-8	82.89	9.07	73.82	9.17	73.72	8.71	74.18	7.39	75.5
CCMAP-9	82.51	8.47	74.04	5.63	76.88	8.15	74.36	7.08	75.43
CCMAP-10	81.80	8.10	73.70	8.34	73.46	7.77	74.03	6.51	75.29
CCMAP-11	80.29	7.19	73.10	7.41	72.88	6.59	73.70	4.76	75.53
CCMAP-12	80.58	6.64	73.94	6.73	73.85	6.28	74.30	5.62	74.96
CCMAP-13	80.11	6.38	73.73	6.29	73.82	5.67	74.44	5.31	74.8
CCMAP-14	78.64	5.10	73.54	4.79	73.85	4.51	74.13	4.41	74.23
CGYP-1	91.89	17.09	74.80	17.04	74.85	16.71	75.18	16.42	75.47
CGYP-2	84.88	9.77	75.11	9.94	74.94	9.31	75.57	9.03	75.85
CGYP-3	83.95	8.31	75.64	8.84	75.11	7.84	76.11	7.51	76.44
CGYP-4	83.49	7.79	75.70	7.83	75.66	7.11	76.38	7.00	76.49
CGYP-5	84.12	7.82	76.30	7.52	76.60	7.2	76.92	7.5	76.62
CGYP-6	83.93	8.94	74.99	8.85	75.08	8.48	75.45	8.25	75.68
CGYP-7	85.37	10.49	74.88	10.43	74.94	10.05	75.32	9.73	75.64
CGSPZ-1	83.31	8.36	74.95	8.22	75.09	7.71	75.60	7.71	75.6
CGSPZ-2	82.56	7.56	75.00	7.74	74.82	7.4	75.16	7.24	75.32
CGSPZ-3	82.85	8.59	74.26	8.8	74.05	8.03	74.82	5.84	77.01
CGSPZ-4	81.28	6.67	74.61	6.65	74.63	6.43	74.85	5.93	75.35
CGSPZ-5	80.56	7.18	73.38	7.11	73.45	6.52	74.04	5.91	74.65
CCMGP-1	84.30	7.21	77.09	9.42	74.88	9.09	75.21	8.74	75.56
CCMGP-2	96.73	22.03	74.70	21.96	74.77	21.68	75.05	21.2	75.53
CCMGP-3	84.44	9.96	74.48	9.99	74.45	9.66	74.78	9.22	75.22
CCMGP-4	84.82	9.74	75.08	9.67	75.15	9.35	75.47	9	75.82
CCMGP-5	79.91	5.81	74.10	5.76	74.15	5.4	74.51	5.14	74.77
CGS-PSE-1	-	-	75.27	-	74.95	-	74.98	-	75.27
CGS-PSE-2	-	-	76.86	-	75.80	-	75.16	-	76.86
CGS-PSE-3	-	-	76.93	-	NA	-	75.87	-	76.93
CGS-PSE-4	-	-	75.79	-	NA	-	75.48	-	75.79
CGS-PSE-5	-	-	77.67	-	77.13	-	77.70	-	77.67
CGS-PSE-6	-	-	74.53	-	74.54	-	74.50	-	74.53
CGS-PSE-7	-	-	84.36	-	85.02	-	87.65	-	84.36
CGYPSW-1-WSE	-	-	75.29	-	75.05	-	75.04	-	75.29
CGYPSW-2-WSE	-	-	75.34	-	75.19	-	75.15	-	75.34
CGYPSW-3-WSE	-	-	75.49	-	75.57	-	75.36	-	75.49
CGYPSW-4-WSE	-	-	75.89	-	75.86	-	75.69	-	75.89
CGYPSW-6-WSE	-	-	75.11	-	75.10	-	74.93	-	75.11
CGYPSW-7-WSE	-	-	75.14	-	74.91	-	74.84	-	75.14
CGYPSW-8-WSE	-	-	75.22	-	74.94	-	75.13	-	75.22
GMPSW-WET-1SWE	-	-	74.45	-	74.47	-	74.36	-	74.45
GMPSW-WET-2SWE	-	-	75.08	-	74.52	-	75.00	-	75.08
GMPSW-CPD-1SWE	-	-	78.24	-	77.76	-	77.74	-	78.24
STAFF GAUGE	-	-	75.35	-	75.65	-	75.69	-	75.86
STAFF GAUGE	-	-	NA	-	75.78	-	75.40	-	75.08

Notes:

1. Additional groundwater monitoring wells used for developmenrt of potentiometric maps. These wells monitor groundwater constituent concentrations under the SCDES NPDES Permit #SC0037401 and are not used for CCR constituent concentrations.

2. Depth to groundwater is measured below the top of the casing (btoc) to the water surface. The Top of Casing Elevation and GW Elevation are shown relative to the mean sea level (msl).

3. Pond surface elevations (PSE) and staff gauge elevations were collected to aid in the potentiometric surface interpretation elevation.

FIGURES

LEGEND

- BACKGROUND WELL
- CLASS 3 LANDFILL AREA 1B WELL
- CCR UNIT BOUNDARY
- CROSS GENERATING STATION PROPERTY BOUNDARY
- SANTEE COOPER PROPERTY BOUNDARY
- POND WATER SURFACE ELEVATION MEASUREMENT LOCATION

NOTES:

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 970 1,940

SCALE IN FEET

SANTEE COOPER
CROSS GENERATING STATION
PINEVILLE, SOUTH CAROLINA

LOCATION OF CLASS 3 LANDFILL GROUNDWATER MONITORING WELLS FOR CCR COMPLIANCE

JANUARY 2026

FIGURE 1

GIS FILE PATH: I:\97130\Groundwater\GIS Groundwater\mxd map files\CGS_CCR_WELL_LOCATIONS.mxd — USER: ALDECOTE — LAST SAVED: 10/31/2023 10:02:50 AM

FIGURE 1
POTENTIOMETRIC MAP
JANUARY 13, 2025
CROSS GENERATING STATION
PINEVILLE, SOUTH CAROLINA

santee cooper®

synTerra

GRAPHIC SCALE
500 0 500 1,000
(IN FEET)

DRAWN BY: T. KING	DATE: 10/22/2021
REVISED BY: L. FOREMAN	DATE: 07/07/2025
CHECKED BY: K. FERRI	DATE: 07/07/2025
APPROVED BY: K. FERRI	DATE: 07/07/2025
PROJECT MANAGER: K. FERRI	

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N

LAKE MARION
74.01

LAKE MOULTRIE
74.71

CCMLF-2
73.51

CCMLF-1D

CCMLF-1
74.5

STAFF GAUGE 2
DRY

STAFF GAUGE 1
75.35

CGSPZ-5
73.38

POZ-6
75.18

POZ-8

POZ-4
75.34

POZ-5D

CGSPZ-4
74.61

POZ-3
75.74

POZ-7
75.43

CLFIB-5D

CLFIB-5
74.93

CLFIB-4
75.05

CLFIB-3
74.91

CLFIB-2
75.17

CLFIB-1
75.22

CAP-14

CAP-13
74.91

CCMAP-9
74.04

CCMAP-6
73.95

CCMAP-10
73.7

CCMAP-11
73.1

CCMAP-8
73.82

CCMAP-1
73.5

CCMAP-5
74.91

CCMAP-4
74.54

CGS-PSE-4
75.79

CAP-6

CAP-5
74.42

CAP-7
74.8

CAP-4

CAP-3
74.74

CGS-PSE-5
77.67

CGS-PSE-3
76.93

CAP-8

CAP-9
74.6

CCMAP-3

CCMAP-13

CCMAP-12
73.94

CGS-PSE-2
76.86

CAP-2

CGS-PSE-7
84.36

CAP-10

CAP-1
75.15

CAP-12

CAP-11
75.41

CCMAP-7
73.48

CCMAP-14
73.54

CCMAP-2
73.38

CGSPZ-3
74.26

CCMGP-5
74.1

CGYPSW-8-WSE
75.22

CGYPSW-7-WSE
75.14

CGSPZ-1
74.95

PM-1
74.89

GMPSW-WET-2SWE
75.08

CBW-1
75.01

CGS-PSE-6
74.53

GMPSW-CPD-1SWE
78.24

CGYPSW-4-WSE
75.89

CGYP-4
75.70

CGYP-3
75.64

CGYPSW-3-WSE
75.49

CGYPSW-2-WSE
75.34

CCMGP-1

CGYP-2
75.11

CGYP-6
74.99

CGYP-5
76.30

CGYP-7
74.88

CCMGP-2
74.70

CGYPSW-1-WSE
75.29

CGYP-1
74.80

CGYPSW-6-WSE
75.11

CGSPZ-2
75.00

CCMGP-3
74.48

CGS-PSE-1
75.27

GMPSW-WET-1SWE
74.45

CCMGP-4

0.521ft/day
0.241ft/day
0.147ft/day
0.022ft/day
0.039ft/day
0.027ft/day
0.118ft/day
0.071ft/day
0.113ft/day
0.127ft/day

DIVERSION CANAL
BULLTOWN DITCH
TROJAN RD (HWY 45)
EADIE LN
VIPER RD
CLASS 2 LANDFILL
CLASS 3 LANDFILL
ROSS STATION
BOTTOM ASH POND
COAL PILE
ANGELS LANDING
HALLS SUBDIVISION
HALLS RD
CLOSED GYPSUM POND
DIVERSION CANAL ELEVATION - 68.19

LEGEND

- MONITORING WELL IN SURFICIAL FLOW ZONE
- MONITORING WELL IN INTERMEDIATE FLOW ZONE
- MONITORING WELL IN DEEP FLOW ZONE
- SURFACE WATER
- GROUNDWATER FLOW DIRECTION WITH VELOCITY
- GROUNDWATER CONTOUR IN FEET (NAVD88)
- INFERRED GROUNDWATER CONTOUR IN FEET (NAVD88)
- CCR UNIT WASTE BOUNDARY
- SANTEE COOPER PARCEL LINE
- TOPOGRAPHIC CONTOUR (10' INTERVAL)

NOTES:

1. WATER LEVELS WERE GAUGED JANUARY 13, 2025.
2. WATER LEVEL ELEVATIONS FOR LAKE MARION AND LAKE MOULTRIE WERE OBTAINED FROM USGS GAUGING STATIONS NOVEMBER 6, 2024.
3. ALL BOUNDARIES ARE APPROXIMATE.
4. PROPERTY BOUNDARY AND MONITORING WELL PROVIDED BY SANTEE COOPER.
5. AERIAL IMAGERY PROVIDED BY ESRI BASEMAPS, COLLECTED MARCH 15, 2023.
6. DRAWING HAS BEEN SET WITH A PROJECTION OF SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM FIPS 3900 (NAD83). CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
7. HYDRAULIC CONDUCTIVITY AND EFFECTIVE POROSITY VALUES TAKEN FROM 2021 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT PREPARED BY HALEY AND ALDRICH.

$$V = -\frac{K}{n_e}\frac{\Delta h}{L}$$

V = AVERAGE LINEAR VELOCITY (ft/day)
K = AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)
$\Delta h/L$ = HORIZONTAL GRADIENT CHANGE (CHANGE IN HYDRAULIC HEAD / LENGTH OF HORIZONTAL HYDRAULIC FLOW PATH)
K = 25 FEET PER DAY (ft/day)
n_e = 0.25

G:\0 ARCGIS PRO PROJECTS\SANTEE_COOPER\CROSS_STATION\2025\WL_UPDATE\CROSS_WL_UPDATE_2025.APRX

FIGURE 1
POTENTIOMETRIC MAP
APRIL 22, 2025
CROSS GENERATING STATION
PINEVILLE, SOUTH CAROLINA

N

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synTerra

GRAPHIC SCALE
500 0 500 1,000
(IN FEET)

DRAWN BY: T. KING	DATE: 06/10/2025
REVISED BY: T. KING	DATE: 12/16/2025
CHECKED BY: K. FERRI	DATE: 12/16/2025
APPROVED BY: K. FERRI	DATE: 12/16/2025
PROJECT MANAGER: K. FERRI	

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LAKE MARION
74.01

LAKE MOULTRIE
74.71

DIVERSION CANAL

BULLTOWN DITCH

CCMLF-2
74.24

CCMLF-1
75.02

CCMLF-1D

STAFF GAUGE 1
75.65

STAFF GAUGE 2
75.78

CGSPZ-5
73.45

POZ-6
75.13

POZ-8

POZ-4
75.44

POZ-5D

CGSPZ-4
74.63

POZ-3
75.75

CLFIB-5
74.75

CLFIB-5D

CAP-14

CAP-13
74.26

CCMAP-9
76.88

CCMAP-11
72.88

CCMAP-6
73.67

CCMAP-10
73.46

CCMAP-8
73.72

CCMAP-1
73.36

CLASS 2 LANDFILL

CLASS 3 LANDFILL

CLFIB-4
75.01

POZ-7
75.37

CLFIB-3
75.25

CCMAP-5
75.11

CCMAP-4
74.84

CGS-PSE-4
DRY*

CAP-6

CLFIB-2
75.43

CAP-5
74.72

CAP-4

CAP-7
74.33

CLFIB-1
75.60

CGS-PSE-5
77.13

CAP-3
75.37

BOTTOM ASH POND

CAP-8

CCMAP-3

CAP-9
74.75

CGS-PSE-3
DRY*

CCMAP-13

CCMAP-12
73.85

CCMAP-2
73.85

CAP-2

CGS-PSE-2
75.80

CGS-PSE-7
85.02

CAP-10

COAL PILE

CAP-1
75.54

CAP-12

DECANT POND

CCMAP-7
73.97

CCMAP-14
73.85

CGS-PSE-6
74.54

CBW-1
75.66

GMPSW-CPD-1SWE
77.76

CGSPZ-3
74.05

CAP-11
75.94

DIVERSION CANAL
69.77

CLOSED GYPSUM POND

CCMGP-5
74.15

CGYPSW-8-WSE
74.94

CGYPSW-7-WSE
74.91

PM-1
75.20

CGSPZ-1
75.09

GMPSW-WET-2SWE
74.52

CLOSED GYPSUM POND

CGYPSW-4-WSE
75.86

CGYP-4
75.66

CGYP-3
75.11

CGYPSW-3-WSE
75.57

CCMGP-1

CGYP-6
75.08

CGYP-2
74.94

CGYPSW-2-WSE
75.19

CCMGP-2
74.77

CGYP-5
76.60

CGYP-7
74.94

CGYPSW-1-WSE
75.05

CGYP-1
74.85

CCMGP-3
74.45

CGYPSW-6-WSE
75.10

CGSPZ-2
74.82

CCMGP-4

CGS-PSE-1
74.95

GMPSW-WET-1SWE
74.47

0.143ft/day
0.021ft/day
0.117ft/day
0.043ft/day
0.063ft/day
0.053ft/day
0.087ft/day
0.124ft/day
0.129ft/day
0.087ft/day

LEGEND

- MONITORING WELL IN SURFICIAL FLOW ZONE
- MONITORING WELL IN INTERMEDIATE FLOW ZONE
- MONITORING WELL IN DEEP FLOW ZONE
- SURFACE WATER SAMPLE LOCATION
- GROUNDWATER FLOW DIRECTION WITH VELOCITY
- GROUNDWATER CONTOUR IN FEET (NAVD88)
- INFERRED GROUNDWATER CONTOUR IN FEET (NAVD88)
- CCR UNIT WASTE BOUNDARY
- SANTEE COOPER PARCEL LINE
- TOPOGRAPHIC CONTOUR (10' INTERVAL)
- STREAM

NOTES:

1. WATER LEVELS WERE GAUGED APRIL 22, 2025.
2. * - SURFACE WATER LOCATION WAS DRY DURING APRIL 2025 SYNOPTIC WATER LEVEL EVENT.
3. ALL BOUNDARIES ARE APPROXIMATE.
4. PROPERTY BOUNDARY AND MONITORING WELL PROVIDED BY SANTEE COOPER.
5. AERIAL IMAGERY PROVIDED BY ESRI BASEMAPS, COLLECTED MARCH 15, 2023.
6. DRAWING HAS BEEN SET WITH A PROJECTION OF SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM FIPS 3900 (NAD83). CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
7. HYDRAULIC CONDUCTIVITY AND EFFECTIVE POROSITY VALUES TAKEN FROM 2021 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT PREPARED BY HALEY AND ALDRICH.

$$V = -\frac{K}{n_e}\frac{\Delta h}{L}$$

V = AVERAGE LINEAR VELOCITY (ft/day)
K = AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)
Δh/L = HORIZONTAL GRADIENT CHANGE (CHANGE IN HYDRAULIC HEAD / LENGTH OF HORIZONTAL HYDRAULIC FLOW PATH)
K = 25 FEET PER DAY (ft/day)
n_e = 0.25

G:\0 ARCGIS PRO PROJECTS\SANTEE_COOPER\CROSS_STATION\2025\WL_UPDATE\CROSS_WL_UPDATE_2025.APRX

FIGURE 1
POTENTIOMETRIC MAP
JUNE 2, 2025
CROSS GENERATING STATION
PINEVILLE, SOUTH CAROLINA

N

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synTerra

500 0 500 1,000
GRAPHIC SCALE (IN FEET)

DRAWN BY: T. KING	DATE: 06/10/2025
REVISED BY: C. NORRIS	DATE: 12/16/2025
CHECKED BY: K. FERRI	DATE: 12/16/2025
APPROVED BY: K. FERRI	DATE: 12/16/2025
PROJECT MANAGER: K. FERRI	

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LAKE MARION 75.82
DIVERSION CANAL
BULLTOWN DITCH
CCMLF-2 74.07
CCMLF-1D
CCMLF-1 74.81
STAFF GAUGE 2 75.40
STAFF GAUGE 1 75.69
CGSPZ-5 74.04
POZ-6 75.75
0.013ft/day
POZ-8
0.053ft/day
CLFIB-5 75.28
CCMAP-9 74.36
CGSPZ-4 74.85
0.131ft/day
0.020ft/day
POZ-4 75.84
POZ-5D
CLFIB-5D
CAP-14
CAP-13 75.30
0.135ft/day
POZ-3 76.14
CLASS 2 LANDFILL
CLASS 3 LANDFILL
CCMAP-6 74.25
CCMAP-11 73.70
CCMAP-10 74.03
CCMAP-8 74.18
CCMAP-1 74.38
POZ-7 75.60
CLFIB-4 75.46
CLFIB-3 75.59
CGS-PSE-4 75.48
CCMAP-5 75.48
CCMAP-4 75.09
CAP-6
CAP-5 75.00
0.046ft/day
CLFIB-2 75.68
CGS-PSE-5 77.70
CAP-4
CLFIB-1 75.81
CAP-3 75.44
CGS-PSE-3 75.87
CAP-7 75.31
BOTTOM ASH POND
CCMAP-3
CCMAP-13
CCMAP-12 74.30
CAP-8
CGS-PSE-7 87.65
CGS-PSE-6 74.50
CAP-2
CGS-PSE-2 75.16
CAP-9 76.80
0.120ft/day
CCMAP-2 74.08
COAL PILE
CAP-1 75.75
CAP-10
DECANT POND
CAP-12
GMPSW-CPD-1SWE 77.74
CCMAP-7 74.12
CCMAP-14 74.13
0.182ft/day
CGSPZ-3 74.82
CAP-11 76.89
DIVERSION CANAL 69.58
CBW-1 75.91
CLOSED GYPSUM POND
0.138ft/day
CCMGP-5 74.51
CGYPSW-8-WSE 75.13
CGYPSW-7-WSE 74.84
PM-1 75.71
CGSPZ-1 75.60
GMPSW-WET-2SWE 75.00
LAKE MOULTRIE 75.70

CLOSED GYPSUM POND
CGYPSW-4-WSE 75.69
CGYP-4 76.38
CGYPSW-3-WSE 75.36
CGYP-3 76.11
CGYPSW-2-WSE 75.15
CGYP-5 76.92
CGYP-2 75.57
CGYP-7 75.32
CCMGP-1
0.136ft/day
CCMGP-2 75.05
CGYP-6 75.45
CGYPSW-1-WSE 75.04
CGYP-1 75.18
CCMGP-3 74.78
CGYPSW-6-WSE 74.93
CCMGP-4
GMPSW-WET-1SWE 74.36
CGS-PSE-1 74.98
CGSPZ-2 75.16

LEGEND

- MONITORING WELL IN SURFICIAL FLOW ZONE
- MONITORING WELL IN INTERMEDIATE FLOW ZONE
- MONITORING WELL IN DEEP FLOW ZONE
- SURFACE WATER SAMPLE LOCATION
- GROUNDWATER FLOW DIRECTION WITH VELOCITY
- GROUNDWATER CONTOUR IN FEET (NAVD88)
- INFERRED GROUNDWATER CONTOUR IN FEET (NAVD88)
- CCR UNIT WASTE BOUNDARY
- SANTEE COOPER PARCEL LINE
- TOPOGRAPHIC CONTOUR (10' INTERVAL)
- STREAM

NOTES:

1. WATER LEVELS WERE GAUGED JUNE 2, 2025.
2. BOUNDARIES ARE APPROXIMATE.
3. PROPERTY BOUNDARY AND MONITORING WELL PROVIDED BY SANTEE COOPER.
4. AERIAL IMAGERY IS MAXAR IMAGERY PROVIDED BY ESRI BASEMAPS, COLLECTED OCTOBER 03, 2023.
5. DRAWING HAS BEEN SET WITH A PROJECTION OF SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM FIPS 3900 (NAD83). CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
6. HYDRAULIC CONDUCTIVITY AND EFFECTIVE POROSITY VALUES TAKEN FROM 2021 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT PREPARED BY HALEY AND ALDRICH.

$$V = -\frac{K}{n_e}\frac{\Delta h}{L}$$

V = AVERAGE LINEAR VELOCITY (ft/day)
K = AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)
$\Delta h/L$ = HORIZONTAL GRADIENT CHANGE (CHANGE IN HYDRAULIC HEAD / LENGTH OF HORIZONTAL HYDRAULIC FLOW PATH)
K = 25 FEET PER DAY (ft/day)
n_e = 0.25

PATH: G:\0 ARCGIS PRO PROJECTS\SANTEE_COOPER\CROSS_STATION\2025\WL_UPDATE\CROSS_WL_UPDATE_2025.APRX
LAYOUT NAME: FIG01_CROSS_STATION_WL_JUNE2025

FIGURE 1
POTENTIOMETRIC MAP
NOVEMBER 3, 2025
CROSS GENERATING STATION
PINEVILLE, SOUTH CAROLINA

N

santee cooper®

synTerra

500 0 500 1,000
GRAPHIC SCALE (IN FEET)

DRAWN BY: T. KING	DATE: 06/10/2025
REVISED BY: C. NORRIS	DATE: 01/13/2026
CHECKED BY: T. GRANT	DATE: 01/13/2026
APPROVED BY: T. GRANT	DATE: 01/13/2026
PROJECT MANAGER: T. GRANT	

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LAKE MARION 75.22
DIVERSION CANAL
BULLTOWN DITCH
CCMLF-2 75.69
CCMLF-1 75.57
CCMLF-1D
STAFF GAUGE 2 75.08
STAFF GAUGE 1 75.86
CGSPZ-5 74.65
POZ-6 77.03
POZ-4 77.02
POZ-8
POZ-5D
CLFIB-5 76.39
CLFIB-5D
CCMAP-9 75.43
CCMAP-11 75.53
CCMAP-10 75.29
CCMAP-8 75.50
CCMAP-1 75.19
CCMAP-6 75.47
CAP-14
CAP-13 75.88
CGSPZ-4 75.35
POZ-3 76.77
POZ-7 76.41
CLFIB-4 76.39
CLFIB-3 76.26
CLFIB-2 76.29
CLFIB-1 76.37
CLASS 2 LANDFILL
CLASS 3 LANDFILL
CAP-5 76.00
CGS-PSE-4 75.79
CCMAP-5 76.33
CCMAP-4 76.18
CAP-6
CAP-4
CAP-3 75.89
CAP-7 75.77
CGS-PSE-5 77.67
BOTTOM ASH POND
CAP-8
CCMAP-3
CCMAP-12 74.96
CCMAP-13
CAP-9 76.70
CGS-PSE-3 76.93
CAP-2
CGS-PSE-2 76.86
CGS-PSE-7 84.36
CAP-10
CCMAP-2 74.35
CCMAP-7 74.33
CCMAP-14 74.23
COAL PILE
CAP-1 76.21
CAP-12
DECANT POND
GMPSW-CPD-1SWE 78.24
CAP-11 76.53
CGSPZ-3 77.01
CGS-PSE-6 74.53
DIVERSION CANAL 69.06
CBW-1 76.32
CLOSED GYPSUM POND
CGSPZ-1 75.60
PM-1 75.71
CGYPSW-8-WSE 75.22
CGYPSW-7-WSE 75.14
GMPSW-WET-2SWE 75.08
CCMGP-5 74.77
LAKE MOULTRIE 75.13
0.004ft/day
0.132ft/day
0.060ft/day
0.017ft/day
0.148ft/day
0.032ft/day
0.256ft/day
0.145ft/day

CLOSED GYPSUM POND
CGYPSW-4-WSE 75.89
CGYP-4 76.49
CGYP-3 76.44
CGYPSW-3-WSE 75.49
CGYPSW-2-WSE 75.34
CGYP-5 76.62
CCMGP-1
CGYP-2 75.85
CGYP-7 75.64
0.056ft/day
CCMGP-2 75.53
CGYP-6 75.68
CGYP-1 75.47
CCMGP-3 75.22
CGYPSW-1-WSE 75.29
CCMGP-4
CGYPSW-6-WSE 75.11
CGS-PSE-1 75.27
CGSPZ-2 75.32
GMPSW-WET-1SWE 74.45

LEGEND

- MONITORING WELL IN SURFICIAL FLOW ZONE
- MONITORING WELL IN INTERMEDIATE FLOW ZONE
- MONITORING WELL IN DEEP FLOW ZONE
- SURFACE WATER SURVEY LOCATION
- GROUNDWATER FLOW DIRECTION WITH VELOCITY
- GROUNDWATER CONTOUR IN FEET (NAVD88)
- INFERRED GROUNDWATER CONTOUR IN FEET (NAVD88)
- SURFACE WATER FLOW DIRECTION
- CCR UNIT WASTE BOUNDARY
- SANTEE COOPER PARCEL LINE
- STREAM
- TOPOGRAPHIC CONTOUR (10' INTERVAL)

NOTES:

1. WATER LEVELS WERE GAUGED NOVEMBER 3, 2025.
2. SURVEYED SURFACE WATER ELEVATIONS FROM UNLINED WATER FEATURES ARE USED TO INFORM GROUNDWATER ELEVATION CONTOURS WHERE AVAILABLE. GROUNDWATER ELEVATIONS ARE PRIORITIZED IN CONTOURING BECAUSE SURFACE WATER ELEVATIONS MAY NOT REPRESENT WATER TABLE CONDITIONS.
3. BOUNDARIES ARE APPROXIMATE.
4. PROPERTY BOUNDARY AND MONITORING WELL LOCATIONS PROVIDED BY SANTEE COOPER.
5. AERIAL IMAGERY IS MAXAR IMAGERY PROVIDED BY ESRI BASEMAPS, COLLECTED OCTOBER 03, 2023.
6. DRAWING HAS BEEN SET WITH A PROJECTION OF SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM FIPS 3900 (NAD83). CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
7. HYDRAULIC CONDUCTIVITY AND EFFECTIVE POROSITY VALUES TAKEN FROM 2021 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT PREPARED BY HALEY AND ALDRICH.
8. SURFACE WATER LEVELS OF LAKE MOULTRIE AND LAKE MARION WERE COLLECTED FROM THE USGS MONITORING STATIONS ON THE SAME DAY AS WATER LEVELS WERE GAUGED.

$$V = -\frac{K}{n_e}\frac{\Delta h}{L}$$

V = AVERAGE LINEAR VELOCITY (ft/day)
K = AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)
$\Delta h/L$ = HORIZONTAL GRADIENT CHANGE (CHANGE IN HYDRAULIC HEAD / LENGTH OF HORIZONTAL HYDRAULIC FLOW PATH)
K = 25 FEET PER DAY (ft/day)
n_e = 0.25

PATH: G:\0 ARCGIS PRO PROJECTS\SANTEE_COOPER\CROSS_STATION\2025\WL_UPDATE\CROSS_WL_UPDATE_2025.APRX
LAYOUT NAME: FIG01_CROSS_STATION_WL_NOV2025

Appendix A – Statistical Analyses

HALEY & ALDRICH, INC.
400 Augusta Street
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TECHNICAL MEMORANDUM

July 1, 2025
File No. 132892-102-001-02

SUBJECT: Statistical Evaluation of the January 2025 Groundwater Detection Monitoring Data
Cross Generating Station
Class 3 Landfill

Pursuant to Title 40 Code of Federal Regulations (40 CFR) §257.93 and §257.94 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained for the January 2025 detection monitoring event for the Cross Generating Station (CGS) Class 3 Landfill. Data for this groundwater sampling event was validated on April 11, 2025, by Santee Cooper and provided to Haley & Aldrich, Inc. (Haley & Aldrich).

BACKGROUND

The CGS Class 3 Landfill began receiving waste in December 2015. After completion of baseline sampling, the initial statistical analysis for the CGS Class 3 Landfill identified statistically significant increases (SSIs) above the Groundwater Protection Standards (GWPS) for Appendix III constituents in downgradient monitoring wells. Subsequently, alternate source demonstrations (ASDs) completed in April 2018 and March 2023 concluded the adjacent closed Class 2 Landfill and former temporary gypsum marketing areas are the sources for the Appendix III SSIs (boron, calcium, chloride, pH, sulfate, and total dissolved solids) as opposed to the Class 3 Landfill. As a result, Class 3 Landfill remained in detection monitoring. Intrawell statistical evaluations have been conducted for the Appendix III constituents since the 2018 ASD.

Recent analytical testing results were evaluated to determine if SSIs of Appendix III groundwater monitoring constituents exist above the GWPS. Using intrawell evaluations, data from the semiannual sampling event for downgradient monitoring wells were compared to background values.

STATISTICAL EVALUATION

The Rule provides four specific options to statistically evaluate whether water quality downgradient of the coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)) represents an SSI of Appendix III parameters compared to the background groundwater quality of the CCR unit. The intrawell evaluation compares the most recent values from each compliance well against a background dataset composed of its own historical data.

To statistically evaluate the analytical results, the background prediction limit (PL), which is a type of prediction interval method, was selected to evaluate the Appendix III data. The prediction interval method is one of the options outlined in the Rule. A prediction interval procedure establishes a concentration limit for each constituent from the distribution of the background data, with a specified

confidence level (e.g., 95 percent). The upper endpoint of a concentration limit is termed the upper tolerance limit (UPL), and the lower endpoint of a concentration limit is called the lower prediction limit (LPL). Only pH was evaluated against the LPL. Depending on the background data distribution, parametric or non-parametric prediction limits procedures are used to evaluate groundwater monitoring data using this method. Parametric PLs use normally distributed data or normalized data via transformation of the sample background data.

If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the PL. If all the background data are non-detect, a maximum reporting limit (RL) may serve as an approximate UPL. Depending on the available sample size, PLs generated from non-parametric or maximum RLs may not achieve the same target statistical confidence limits as the parametric PLs.

Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009* (the Unified Guidance), background concentrations were based on the statistical evaluation of analytical results collected through January 2025 and updated in the Statistical Output produced with R programming software (Attachment A). The background dataset was updated in the summary table for the January 2025 sampling event and will again be updated after four additional data points are collected (first semiannual event of 2027), in accordance with the Unified Guidance.

TREND ANALYSIS

Mann-Kendall trend analyses were performed on both the overall dataset, and on the eight most recent samples. Trends were only evaluated for constituent/well datasets of sufficient sample size. Recent trend analysis results are included in Table 1, and both overall and recent trends are included in Attachment A, Table A-4. Trend analysis will continue to be used to monitor and evaluate concentrations in the context of overall site conditions.

Of the 32 well/constituent trends analyzed at downgradient compliance wells, 34 percent are identified as stable or decreasing; 19 percent are increasing trends, and 34 percent are variable with no statistically significant trend. Except for pH and fluoride, all other Appendix III constituents showed increasing trends at one or more downgradient compliance wells. Sulfate did not show an SSI trend, but data are variable and may be starting to increase at CLF1B-2. It is important to note that increasing trends are not part of the comparison criteria for triggering an SSI.

RESULTS OF APPENDIX III DOWNGRADIENT STATISTICAL COMPARISONS

As stated, Appendix III constituent detections from downgradient well samples were compared to their respective PLs (Table 1) using intrawell comparisons. SSIs were not identified during the January 2025 data screening.

Findings of the 2023 Alternate Source Demonstration concluded that SSIs identified in 2022 were the result of physical and pre-existing alternative sources, specifically the CGS Class 2 Landfill, which began receiving waste approximately 40 years ago, and possible residual impacts from temporary gypsum marketing storage areas that no longer exist. As noted in the 2023 ASD, “Groundwater flow velocity for this portion of the CGS site is approximately 11 to 22 feet per year based on flow velocities calculated

from March 2022 water table elevations." Based on this calculated groundwater flow velocity and levels of constituent concentrations, elevated concentrations of multiple Appendix III constituents could continue to flow through the Class 3 Landfill monitoring wells until 2043.

Statistical results and trends in concentrations will continue to be evaluated during subsequent sampling events. Based on these results and a comparison to the findings of the 2023 ASD, the Class 3 Landfill will continue in detection monitoring.

Enclosures:

Table 1 – January 2025 Detection Monitoring Data (CGS Class 3 Landfill)
Attachment A – Statistical Output, January 2025

https://haleyaldrich.sharepoint.com/sites/SanteeCooper2/Shared Documents/0132892.Santee Cooper CCR Consulting Service/0_Cross Generating Station/Statistical Analysis/2025-05/Class 3_Federal/client final/2025_0701_HAI_CGS_Class 3 Landfill Statistical Evaluation_F.docx

TABLE

TABLE 1
JANUARY 2025 DETECTION MONITORING DATA (CGS CLASS 3 LANDFILL)
CROSS GENERATING STATION
CLASS 3 LANDFILL

Location	Frequency of Detection	Percent of Detected Results	Range of Reporting Limits	Mean	50th Percentile (Median)	95th Percentile	Maximum Detected Value	Coefficient of Variance	CCR MCL/RSL	Number of MCL/RSL Exceedances	Mann-Kendall Trend [a]	Intra-well Analysis				
												Assumed Data Distribution	Sample Date	January 2025 Concentration	Intrawell Prediction Limits [b]	Statistically Significant Increases (SSIs)
CCR Appendix III: Boron, Total (mg/L)																
CLF1B-1	9/26	35%	0.015 - 0.015	0.0146	0.0150	0.0159	0.0161	9%	NA	NA	Increasing	Non-Parametric	1/27/2025	0.0161	0.0161	No
CLF1B-2	22/26	85%	0.01 - 0.015	0.0185	0.0169	0.0271	0.0398	31%	NA	NA	Probably Increasing	Non-Parametric	1/27/2025	0.0279	0.0398	No
CLF1B-3	26/26	100%	NA	0.0605	0.0455	0.135	0.181	68%	NA	NA	No Trend	Non-Parametric	1/27/2025	0.101	0.1810	No
CLF1B-4	26/26	100%	NA	0.0216	0.0202	0.0294	0.0298	20%	NA	NA	No Trend	Parametric	1/27/2025	0.0298	0.0355	No
CLF1B-5	22/26	85%	0.015 - 0.015	0.0192	0.0180	0.0273	0.0295	24%	NA	NA	Increasing	Parametric	1/27/2025	0.0295	0.0338	No
CCR Appendix III: Calcium, Total (mg/L)																
CLF1B-1	25/25	100%	NA	177	176	192	201	5%	NA	NA	Increasing	Parametric	1/27/2025	201	207.4	No
CLF1B-2	25/25	100%	NA	139	138	155	210	12%	NA	NA	Probably Increasing	Non-Parametric	1/27/2025	156	210.0	No
CLF1B-3	24/24	100%	NA	186	188	242	257	22%	NA	NA	Stable	Parametric	1/27/2025	188	314.9	No
CLF1B-4	25/25	100%	NA	113	110	142	180	21%	NA	NA	No Trend	Parametric	1/27/2025	140	188.7	No
CLF1B-5	26/26	100%	NA	247	261	292	300	17%	NA	NA	No Trend	Parametric	1/27/2025	300	375.8	No
CCR Appendix III: Chloride, Total (mg/L)																
CLF1B-1	26/26	100%	NA	37.0	38.1	42.0	42.4	11%	NA	NA	Decreasing	Parametric	1/27/2025	29.4	49.4	No
CLF1B-2	26/26	100%	NA	78.2	79.1	93.2	93.9	16%	NA	NA	Increasing	Parametric	1/27/2025	93.9	116.7	No
CLF1B-3	26/26	100%	NA	26.3	23.3	40.3	81.2	47%	NA	NA	Stable	Non-Parametric	1/27/2025	22.5	81.2	No
CLF1B-4	26/26	100%	NA	71.6	61.3	100	100	31%	NA	NA	Stable	Non-Parametric	1/27/2025	93.3	100.0	No
CLF1B-5	27/27	100%	NA	135	134	175	180	22%	NA	NA	No Trend	Parametric	1/27/2025	167	226.0	No
CCR Appendix III: Fluoride (mg/L)																
CLF1B-1	12/25	48%	0.1 - 0.1	0.12	0.10	0.17	0.19	21%	4	0	Stable	Non-Parametric	1/27/2025	0.12	0.19	No
CLF1B-2	6/25	24%	0.1 - 0.1	0.11	0.10	0.14	0.16	14%	4	0	Not Evaluated	Non-Parametric	1/27/2025	<0.1	0.16	No
CLF1B-3	16/25	64%	0.1 - 0.1	0.13	0.12	0.19	0.2	23%	4	0	Stable	Non-Parametric	1/27/2025	0.19	0.20	No
CLF1B-4	3/25	12%	0.1 - 0.1	0.10	0.10	0.12	0.13	7%	4	0	Not Evaluated	Non-Parametric	1/27/2025	<0.1	0.13	No
CLF1B-5	3/25	12%	0.1 - 0.1	0.10	0.10	0.12	0.15	10%	4	0	Not Evaluated	Non-Parametric	1/27/2025	<0.1	0.15	No
CCR Appendix III: pH, Field (SU) [c]																
CLF1B-1	26/26	100%	NA	6.60	6.59	6.81	6.84	2%	NA	NA	Stable	Parametric	1/27/2025	6.58	7.03 / 6.16	No
CLF1B-2	26/26	100%	NA	6.87	6.88	7.08	7.09	2%	NA	NA	Stable	Parametric	1/27/2025	6.99	7.31 / 6.43	No
CLF1B-3	26/26	100%	NA	6.69	6.69	6.90	6.94	2%	NA	NA	No Trend	Parametric	1/27/2025	6.92	7.06 / 6.33	No
CLF1B-4	26/26	100%	NA	7.09	7.05	7.34	7.38	2%	NA	NA	No Trend	Parametric	1/27/2025	7.14	7.52 / 6.66	No
CLF1B-5	27/27	100%	NA	6.61	6.64	6.81	6.89	3%	NA	NA	No Trend	Non-Parametric	1/27/2025	6.89	6.89 / 5.57	No

TABLE 1
JANUARY 2025 DETECTION MONITORING DATA (CGS CLASS 3 LANDFILL)
CROSS GENERATING STATION
CLASS 3 LANDFILL

Location	Frequency of Detection	Percent of Detected Results	Range of Reporting Limits	Mean	50th Percentile (Median)	95th Percentile	Maximum Detected Value	Coefficient of Variance	CCR MCL/RSL	Number of MCL/RSL Exceedances	Mann-Kendall Trend [a]	Intra-well Analysis				
												Assumed Data Distribution	Sample Date	January 2025 Concentration	Intrawell Prediction Limits [b]	Statistically Significant Increases (SSIs)
CCR Appendix III: Sulfate (mg/L)																
CLF1B-1	26/26	100%	NA	143	140	160	191	10%	NA	NA	No Trend	Non-Parametric	1/27/2025	191	191.0	No
CLF1B-2	26/26	100%	NA	14.9	14.25	21.4	22.4	18%	NA	NA	Probably Increasing	Non-Parametric	1/27/2025	22.0	22.4	No
CLF1B-3	26/26	100%	NA	191	193	354	380	51%	NA	NA	Stable	Parametric	1/27/2025	205	496.9	No
CLF1B-4	26/26	100%	NA	19.1	16.5	31.7	34.3	33%	NA	NA	No Trend	Non-Parametric	1/27/2025	31.9	34.3	No
CLF1B-5	27/27	100%	NA	193	228	273.8	291	40%	NA	NA	Decreasing	Non-Parametric	1/27/2025	254	291.0	No
CCR Appendix III: Total Dissolved Solids (mg/L)																
CLF1B-1	26/26	100%	NA	592.7	584.4	650.9	672.5	6%	NA	NA	Probably Increasing	Parametric	1/27/2025	672.5	706.6	No
CLF1B-2	26/26	100%	NA	511.4	512.0	640.3	661.2	15%	NA	NA	Increasing	Parametric	1/27/2025	645.0	757.2	No
CLF1B-3	26/26	100%	NA	792.6	640.0	883.5	5355	119%	NA	NA	Stable	Non-Parametric	1/27/2025	620.0	5355	No
CLF1B-4	26/26	100%	NA	429.7	406.8	606.6	612.5	26%	NA	NA	Increasing	Parametric	1/27/2025	612.5	778.9	No
CLF1B-5	27/27	100%	NA	973.8	1024.0	1231	1280	21%	NA	NA	No Trend	Parametric	1/27/2025	1235	1606	No

NOTES:

[a] Mann-Kendall Trends calculated from the 8 most recent samples at a 95% confidence limits and trend classifications are determined based on guidance from the Monitoring and Remediation Optimization System (Aziz, 2003). Recent trend date ranges vary by well/constituent and are included in Attachment A, Table A-4. 'Probably increasing' and 'probably decreasing' trends indicate that while no statistically significant trend was identified at the indicated confidence level, data suggest emerging trends at a lower confidence level. Data sets that do not meet test requirements, such as having a detection rate of at least 25%, are labeled as 'Not Evaluated'.

[b] Intrawell Prediction Limits are calculated from data collected from individual downgradient wells. No statistical outlier data points were removed from background datasets.

[c] Upper Prediction Limit (UPL) / Lower Prediction Limit (LPL): SSIs are identified as sample results below the LPL or above the UPL.

MCL/RSL: Maximum contaminant level/Regional screening level

mg/L: milligrams per liter, SU = standard pH units

NA: not applicable

<: Constituent not detected above the method detection limit and the sample-specific reporting limit is show.

ATTACHMENT A
Statistical Output, January 2025

Table A-1. Descriptive Statistics

Location	Constituent	Units	n	n, non-detects	percent of non-detects	max	min	mean	median	standard deviation	coefficient of variation (%)	reporting limit range	date range
CLF1B-1	Boron	mg/L	26	17	65	0.0161	0.0101	0.0146	0.015	0.0013	9.18	0.015 - 0.015	2015-10-21 to 2025-01-27
CLF1B-2	Boron	mg/L	26	4	15	0.0398	0.01	0.0185	0.0169	0.0057	30.5	0.01 - 0.015	2015-10-21 to 2025-01-27
CLF1B-3	Boron	mg/L	26	0	0	0.181	0.0172	0.0605	0.0455	0.041	67.9	NA	2015-10-22 to 2025-01-27
CLF1B-4	Boron	mg/L	26	0	0	0.0298	0.016	0.0216	0.0202	0.0044	20.4	NA	2015-10-22 to 2025-01-27
CLF1B-5	Boron	mg/L	26	4	15	0.0295	0.015	0.0192	0.018	0.0047	24.2	0.015 - 0.015	2015-10-22 to 2025-01-27
CLF1B-1	Calcium	mg/L	25	0	0	201	166	177	176	9.5	5.37	NA	2015-10-21 to 2025-01-27
CLF1B-2	Calcium	mg/L	25	0	0	210	120	139	138	17	12.4	NA	2015-10-21 to 2025-01-27
CLF1B-3	Calcium	mg/L	24	0	0	257	100	186	187.5	41	22	NA	2015-10-22 to 2025-01-27
CLF1B-4	Calcium	mg/L	25	0	0	180	67	113	110	24	21.5	NA	2015-10-22 to 2025-01-27
CLF1B-5	Calcium	mg/L	26	0	0	300	160	247	260.5	41	16.5	NA	2015-10-22 to 2025-01-27
CLF1B-1	Chloride	mg/L	26	0	0	42.4	28.2	37	38.05	4	10.7	NA	2015-10-21 to 2025-01-27
CLF1B-2	Chloride	mg/L	26	0	0	93.9	39.6	78.2	79.05	12	15.7	NA	2015-10-21 to 2025-01-27
CLF1B-3	Chloride	mg/L	26	0	0	81.2	15.6	26.3	23.25	12	46.9	NA	2015-10-22 to 2025-01-27
CLF1B-4	Chloride	mg/L	26	0	0	100	47.2	71.6	61.25	22	31	NA	2015-10-22 to 2025-01-27
CLF1B-5	Chloride	mg/L	27	0	0	180	69.5	135	134	29	21.6	NA	2015-10-22 to 2025-01-27
CLF1B-1	Fluoride	mg/L	25	13	52	0.19	0.1	0.118	0.1	0.025	20.9	0.1 - 0.1	2015-10-21 to 2025-01-27
CLF1B-2	Fluoride	mg/L	25	19	76	0.16	0.1	0.107	0.1	0.015	14.2	0.1 - 0.1	2015-10-21 to 2025-01-27
CLF1B-3	Fluoride	mg/L	25	9	36	0.2	0.1	0.126	0.12	0.029	22.9	0.1 - 0.1	2015-10-22 to 2025-01-27
CLF1B-4	Fluoride	mg/L	25	22	88	0.13	0.1	0.102	0.1	0.0072	7.06	0.1 - 0.1	2015-10-22 to 2025-01-27
CLF1B-5	Fluoride	mg/L	25	22	88	0.15	0.1	0.103	0.1	0.011	10.4	0.1 - 0.1	2015-10-22 to 2025-01-27
CLF1B-1	Sulfate	mg/L	26	0	0	191	123	143	140	14	9.72	NA	2015-10-21 to 2025-01-27
CLF1B-2	Sulfate	mg/L	26	0	0	22.4	12.4	14.9	14.25	2.7	17.9	NA	2015-10-21 to 2025-01-27
CLF1B-3	Sulfate	mg/L	26	0	0	380	13	191	192.5	98	51.1	NA	2015-10-22 to 2025-01-27
CLF1B-4	Sulfate	mg/L	26	0	0	34.3	12.2	19.1	16.45	6.4	33.5	NA	2015-10-22 to 2025-01-27
CLF1B-5	Sulfate	mg/L	27	0	0	291	24.2	193	228	77	39.9	NA	2015-10-22 to 2025-01-27
CLF1B-1	Total Dissolved Solids (TDS)	mg/L	26	0	0	672.5	498	593	584.4	36	6.13	NA	2015-10-21 to 2025-01-27
CLF1B-2	Total Dissolved Solids (TDS)	mg/L	26	0	0	661.2	390	511	512	78	15.3	NA	2015-10-21 to 2025-01-27
CLF1B-3	Total Dissolved Solids (TDS)	mg/L	26	0	0	5355	277	793	640	940	119	NA	2015-10-22 to 2025-01-27
CLF1B-4	Total Dissolved Solids (TDS)	mg/L	26	0	0	612.5	257	430	406.8	110	25.9	NA	2015-10-22 to 2025-01-27
CLF1B-5	Total Dissolved Solids (TDS)	mg/L	27	0	0	1280	528	974	1024	200	20.8	NA	2015-10-22 to 2025-01-27
CLF1B-1	pH, Field	pH units	26	0	0	6.84	6.27	6.59	6.59	0.14	2.09	NA	2015-10-21 to 2025-01-27
CLF1B-2	pH, Field	pH units	26	0	0	7.09	6.5	6.87	6.88	0.14	2.03	NA	2015-10-21 to 2025-01-27
CLF1B-3	pH, Field	pH units	26	0	0	6.94	6.43	6.69	6.685	0.12	1.75	NA	2015-10-22 to 2025-01-27
CLF1B-4	pH, Field	pH units	26	0	0	7.38	6.9	7.09	7.045	0.14	1.92	NA	2015-10-22 to 2025-01-27
CLF1B-5	pH, Field	pH units	27	0	0	6.89	5.57	6.61	6.64	0.23	3.49	NA	2015-10-22 to 2025-01-27

Note:

NA = not applicable, constituent detected in all reported samples.

Table A-2. Results of Shapiro-Wilk Test for Normality

		Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)					
Location	Constituent	W statistic	p-value	Sample Count (n)	Non-Detect Count (n)	Data Normality (significance level = 0.05)	Data Normality (significance level = 0.01)
CLF1B-1	Boron	0.651	1.7e-06	25	17	Not normal	Not normal
CLF1B-2	Boron	0.843	0.0013	25	4	Not normal	Not normal
CLF1B-3	Boron	0.836	0.00096	25	0	Not normal	Not normal
CLF1B-4	Boron	0.898	0.016	25	0	Not normal	Normal
CLF1B-5	Boron	0.916	0.041	25	4	Not normal	Normal
CLF1B-1	Calcium	0.920	0.059	24	0	Normal	Normal
CLF1B-2	Calcium	0.667	3.8e-06	24	0	Not normal	Not normal
CLF1B-3	Calcium	0.961	0.48	23	0	Normal	Normal
CLF1B-4	Calcium	0.938	0.14	24	0	Normal	Normal
CLF1B-5	Calcium	0.893	0.013	25	0	Not normal	Normal
CLF1B-1	Chloride	0.940	0.15	25	0	Normal	Normal
CLF1B-2	Chloride	0.911	0.032	25	0	Not normal	Normal
CLF1B-3	Chloride	0.548	1.2e-07	25	0	Not normal	Not normal
CLF1B-4	Chloride	0.781	0.00011	25	0	Not normal	Not normal
CLF1B-5	Chloride	0.956	0.32	26	0	Normal	Normal
CLF1B-1	Fluoride	0.778	0.00013	24	13	Not normal	Not normal
CLF1B-2	Fluoride	0.597	5.7e-07	24	18	Not normal	Not normal
CLF1B-3	Fluoride	0.851	0.0023	24	9	Not normal	Not normal
CLF1B-4	Fluoride	0.408	8.1e-09	24	21	Not normal	Not normal
CLF1B-5	Fluoride	0.412	8.8e-09	24	21	Not normal	Not normal
CLF1B-1	Sulfate	0.945	0.19	25	0	Normal	Normal
CLF1B-2	Sulfate	0.786	0.00014	25	0	Not normal	Not normal
CLF1B-3	Sulfate	0.972	0.68	25	0	Normal	Normal
CLF1B-4	Sulfate	0.829	0.00073	25	0	Not normal	Not normal
CLF1B-5	Sulfate	0.905	0.02	26	0	Not normal	Normal
CLF1B-1	Total Dissolved Solids (TDS)	0.956	0.34	25	0	Normal	Normal
CLF1B-2	Total Dissolved Solids (TDS)	0.973	0.71	25	0	Normal	Normal
CLF1B-3	Total Dissolved Solids (TDS)	0.350	1.7e-09	25	0	Not normal	Not normal
CLF1B-4	Total Dissolved Solids (TDS)	0.935	0.11	25	0	Normal	Normal
CLF1B-5	Total Dissolved Solids (TDS)	0.953	0.27	26	0	Normal	Normal
CLF1B-1	pH, Field	0.975	0.77	25	0	Normal	Normal
CLF1B-2	pH, Field	0.957	0.36	25	0	Normal	Normal
CLF1B-3	pH, Field	0.986	0.98	25	0	Normal	Normal
CLF1B-4	pH, Field	0.918	0.045	25	0	Not normal	Normal
CLF1B-5	pH, Field	0.568	1.3e-07	26	0	Not normal	Not normal

Table A-3. Results of Rosner/Dixon Test for Outliers

		Rosner or Dixon Test for Outliers (R programming, package = outliers, version 0.15, function = dixon.test or rosnerTest, non-detects substituted by the reporting limit)							
Location	Constituent	Outlier Test	n	n, non-detects	statistic	Alternative Hypothesis	p-value	Statistical Outlier (significance level = 0.05)	Outlier Removed
CLF1B-1	Boron	Dixon	26	17	0.47273	lowest value 0.0101 is an outlier	0.025	Yes	No
CLF1B-2	Boron	Dixon	26	4	0.60887	highest value 0.0398 is an outlier	0	Yes	No
CLF1B-3	Boron	Dixon	26	0	0.39003	highest value 0.181 is an outlier	0.12	No	NA
CLF1B-4	Boron	Dixon	26	0	0.04688	highest value 0.0298 is an outlier	0.11	No	NA
CLF1B-5	Boron	Dixon	26	4	0.16552	highest value 0.0295 is an outlier	0.81	No	NA
CLF1B-1	Calcium	Dixon	25	0	0.29412	highest value 201 is an outlier	0.44	No	NA
CLF1B-2	Calcium	Dixon	25	0	0.67442	highest value 210 is an outlier	0	Yes	No
CLF1B-3	Calcium	Dixon	24	0	0.19231	lowest value 100 is an outlier	0.94	No	NA
CLF1B-4	Calcium	Dixon	25	0	0.44395	highest value 180 is an outlier	0.051	No	NA
CLF1B-5	Calcium	Dixon	26	0	0.24615	lowest value 160 is an outlier	0.66	No	NA
CLF1B-1	Chloride	Dixon	26	0	0.16541	lowest value 28.2 is an outlier	0.81	No	NA
CLF1B-2	Chloride	Dixon	26	0	0.46729	lowest value 39.6 is an outlier	0.028	Yes	No
CLF1B-3	Chloride	Dixon	26	0	0.75321	highest value 81.2 is an outlier	0	Yes	No
CLF1B-4	Chloride	Dixon	26	0	0.00196	highest value 100 is an outlier	0	Yes	No
CLF1B-5	Chloride	Dixon	27	0	0.28995	lowest value 69.5 is an outlier	0.41	No	NA
CLF1B-1	Fluoride	Dixon	25	13	0.44444	highest value 0.19 is an outlier	0.051	No	NA
CLF1B-2	Fluoride	Dixon	25	19	0.50000	highest value 0.16 is an outlier	0.015	Yes	No
CLF1B-3	Fluoride	Dixon	25	9	0.30000	highest value 0.2 is an outlier	0.42	No	NA
CLF1B-4	Fluoride	Dixon	25	22	0.66667	highest value 0.13 is an outlier	0	Yes	No
CLF1B-5	Fluoride	Dixon	25	22	0.80000	highest value 0.15 is an outlier	0	Yes	No
CLF1B-1	Sulfate	Dixon	26	0	0.53333	highest value 191 is an outlier	0.00026	Yes	No
CLF1B-2	Sulfate	Dixon	26	0	0.28283	highest value 22.4 is an outlier	0.47	No	NA
CLF1B-3	Sulfate	Dixon	26	0	0.09807	highest value 380 is an outlier	0.35	No	NA
CLF1B-4	Sulfate	Dixon	26	0	0.15534	highest value 34.3 is an outlier	0.74	No	NA
CLF1B-5	Sulfate	Dixon	27	0	0.16430	lowest value 24.2 is an outlier	0.82	No	NA
CLF1B-1	Total Dissolved Solids (TDS)	Dixon	26	0	0.38645	lowest value 498 is an outlier	0.12	No	NA
CLF1B-2	Total Dissolved Solids (TDS)	Dixon	26	0	0.13298	highest value 661.2 is an outlier	0.59	No	NA
CLF1B-3	Total Dissolved Solids (TDS)	Dixon	26	0	0.90965	highest value 5355 is an outlier	0	Yes	No
CLF1B-4	Total Dissolved Solids (TDS)	Dixon	26	0	0.02665	highest value 612.5 is an outlier	0.038	Yes	No
CLF1B-5	Total Dissolved Solids (TDS)	Dixon	27	0	0.32709	lowest value 528 is an outlier	0.26	No	NA
CLF1B-1	pH, Field	Dixon	26	0	0.33333	lowest value 6.27 is an outlier	0.26	No	NA
CLF1B-2	pH, Field	Dixon	26	0	0.29825	lowest value 6.5 is an outlier	0.4	No	NA
CLF1B-3	pH, Field	Dixon	26	0	0.35897	lowest value 6.43 is an outlier	0.19	No	NA
CLF1B-4	pH, Field	Dixon	26	0	0.31111	highest value 7.38 is an outlier	0.35	No	NA
CLF1B-5	pH, Field	Dixon	27	0	0.77311	lowest value 5.57 is an outlier	0	Yes	No

Table A-4. Results of Mann Kendall Trend Test

		Mann Kendall Trends		Secular Trend Evaluation for All Data Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Secular Trend Evaluation for Recent Data (subset of 8 most recent data points) Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	n	n, detected results	recent data date range	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)
CLF1B-1	Boron	Increasing	Increasing	26	9	0.344	0.472	0.00247	99.8	117	8	7	2020-02-24 to 2025-01-27	0.234	0.714	0.0187	98.1	20
CLF1B-2	Boron	Probably Increasing	Probably Increasing	26	22	0.398	0.258	0.073	92.7	82	8	7	2020-02-24 to 2025-01-27	0.35	0.571	0.0635	93.7	16
CLF1B-3	Boron	Increasing	No Trend	26	26	0.679	0.647	0.00000405	100	210	8	8	2020-02-24 to 2025-01-27	0.34	0.109	0.803	19.7	3
CLF1B-4	Boron	No Trend	No Trend	26	26	0.204	0.131	0.365	63.5	42	8	8	2020-02-24 to 2025-01-27	0.153	0.429	0.174	82.6	12
CLF1B-5	Boron	Increasing	Increasing	26	22	0.347	0.748	0.000000238	100	236	8	8	2020-02-25 to 2025-01-27	0.155	0.643	0.0354	96.5	18
CLF1B-1	Calcium	Stable	Increasing	25	25	0.0537	-0.00338	1	0	-1	8	8	2020-02-24 to 2025-01-27	0.0682	0.714	0.0187	98.1	20
CLF1B-2	Calcium	Increasing	Probably Increasing	25	25	0.124	0.458	0.00168	99.8	135	8	8	2020-02-24 to 2025-01-27	0.0527	0.571	0.0635	93.7	16
CLF1B-3	Calcium	Increasing	Stable	24	24	0.22	0.428	0.00371	99.6	118	8	8	2020-02-24 to 2025-01-27	0.119	-0.0714	0.902	9.8	-2
CLF1B-4	Calcium	Increasing	No Trend	25	25	0.215	0.55	0.000138	100	164	8	8	2020-02-24 to 2025-01-27	0.0638	0.371	0.258	74.2	10
CLF1B-5	Calcium	Increasing	No Trend	26	26	0.165	0.822	0	100	266	8	8	2020-02-25 to 2025-01-27	0.0318	0.357	0.266	73.4	10
CLF1B-1	Chloride	Decreasing	Decreasing	26	26	0.107	-0.365	0.00986	99	-118	8	8	2020-02-24 to 2025-01-27	0.158	-0.786	0.00937	99.1	-22
CLF1B-2	Chloride	Increasing	Increasing	26	26	0.157	0.828	0	100	269	8	8	2020-02-24 to 2025-01-27	0.0332	0.786	0.00937	99.1	22
CLF1B-3	Chloride	Stable	Stable	26	26	0.469	-0.0895	0.537	46.3	-29	8	8	2020-02-24 to 2025-01-27	0.364	-0.0714	0.902	9.8	-2
CLF1B-4	Chloride	Increasing	Stable	26	26	0.31	0.571	0.0000496	100	185	8	8	2020-02-24 to 2025-01-27	0.0284	-0.4	0.212	78.8	-11
CLF1B-5	Chloride	Increasing	No Trend	27	27	0.216	0.853	0	100	297	8	8	2020-02-25 to 2025-01-27	0.0544	0.222	0.53	47	6
CLF1B-1	Fluoride	Probably Decreasing	Stable	25	12	0.513	-0.308	0.0508	94.9	-78	8	3	2020-02-24 to 2025-01-27	0.501	-0.0891	0.886	11.4	-2
CLF1B-2	Fluoride	Not Evaluated - Majority of data (>75%) non-detect.	Not Evaluated - No detected results.	25	6	0.513	NA	NA	NA	NA	8	0	2020-02-24 to 2025-01-27	0	NA	NA	NA	NA
CLF1B-3	Fluoride	No Trend	Stable	25	16	0.455	0.135	0.385	61.5	37	8	6	2020-02-24 to 2025-01-27	0.443	-0.0741	0.9	10	-2
CLF1B-4	Fluoride	Not Evaluated - Majority of data (>75%) non-detect.	Not Evaluated - No detected results.	25	3	0.401	NA	NA	NA	NA	8	0	2020-02-24 to 2025-01-27	0	NA	NA	NA	NA
CLF1B-5	Fluoride	Not Evaluated - Majority of data (>75%) non-detect.	Not Evaluated - No detected results.	25	3	0.441	NA	NA	NA	NA	8	0	2020-02-25 to 2025-01-27	0	NA	NA	NA	NA
CLF1B-1	Sulfate	Increasing	No Trend	26	26	0.0972	0.283	0.0469	95.3	91	8	8	2020-02-24 to 2025-01-27	0.119	0.5	0.108	89.2	14
CLF1B-2	Sulfate	No Trend	Probably Increasing	26	26	0.179	0.214	0.134	86.6	69	8	8	2020-02-24 to 2025-01-27	0.165	0.571	0.0635	93.7	16
CLF1B-3	Sulfate	Increasing	Stable	26	26	0.511	0.538	0.000125	100	175	8	8	2020-02-24 to 2025-01-27	0.221	-0.143	0.711	28.9	-4
CLF1B-4	Sulfate	No Trend	No Trend	26	26	0.335	0.102	0.48	52	33	8	8	2020-02-24 to 2025-01-27	0.238	0.357	0.266	73.4	10
CLF1B-5	Sulfate	Increasing	Decreasing	27	27	0.399	0.753	0	100	264	8	8	2020-02-25 to 2025-01-27	0.0495	-0.691	0.0248	97.5	-19
CLF1B-1	Total Dissolved Solids (TDS)	No Trend	Probably Increasing	26	26	0.0613	0.148	0.3	70	48	8	8	2020-02-24 to 2025-01-27	0.0559	0.571	0.0635	93.7	16
CLF1B-2	Total Dissolved Solids (TDS)	Increasing	Increasing	26	26	0.153	0.559	0.000072	100	181	8	8	2020-02-24 to 2025-01-27	0.124	0.714	0.0187	98.1	20
CLF1B-3	Total Dissolved Solids (TDS)	Increasing	Stable	26	26	1.19	0.323	0.0219	97.8	105	8	8	2020-02-24 to 2025-01-27	0.145	-0.143	0.711	28.9	-4
CLF1B-4	Total Dissolved Solids (TDS)	Increasing	Increasing	26	26	0.259	0.616	0.0000114	100	200	8	8	2020-02-24 to 2025-01-27	0.123	0.714	0.0187	98.1	20
CLF1B-5	Total Dissolved Solids (TDS)	Increasing	No Trend	27	27	0.208	0.767	0	100	268	8	8	2020-02-25 to 2025-01-27	0.0541	0.4	0.212	78.8	11
CLF1B-1	pH, Field	No Trend	Stable	26	26	0.0209	0.0156	0.93	7	5	8	8	2020-02-24 to 2025-01-27	0.0238	-0.473	0.135	86.5	-13
CLF1B-2	pH, Field	Probably Decreasing	Stable	26	26	0.0203	-0.243	0.0891	91.1	-78	8	8	2020-02-24 to 2025-01-27	0.0221	-0.286	0.386	61.4	-8
CLF1B-3	pH, Field	Stable	No Trend	26	26	0.0175	-0.112	0.44	56	-36	8	8	2020-02-24 to 2025-01-27	0.0152	0.182	0.618	38.2	5
CLF1B-4	pH, Field	Decreasing	No Trend	26	26	0.0192	-0.326	0.0217	97.8	-105	8	8	2020-02-24 to 2025-01-27	0.0109	0.143	0.711	28.9	4
CLF1B-5	pH, Field	Probably Decreasing	No Trend	27	27	0.0349	-0.239	0.0899	91	-82	8	8	2020-02-25 to 2025-01-27	0.0176	0.309	0.369	63.1	8

Note:

Mann Kendall Trends are classified based on Aziz (2003) guidance.

Table A-5. Intrawell Prediction Limit Calculations

			Baseline Data Characterization [a]											Prediction Limits		95% Confidence Parametric Prediction Limit Calculation Details					Non-Parametric Prediction Limit Calculation Details	
Location	Constituent	Units	Baseline Distribution [a]	Prediction Interval Calculation	min baseline sample date	max baseline sample sample	n	n, non-detects	max	min	mean	standard deviation	Trend (Baseline Data)	Prediction Limit Calculation Method	UPL	LPL	degrees of freedom	future samples (M)	confidence level (%) for M sample comparisons	t (percentile of student's t-test)	t quantile	achieved confidence level (%)	false positive rate (%)
CLF1B-1	Boron	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	17	0.0161	0.0101	0.01462	0.001343	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0161	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-2	Boron	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	4	0.0398	0.01	0.01854	0.005662	Probably Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0398	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-3	Boron	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	0.181	0.0172	0.06047	0.04103	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.181	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-4	Boron	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	0.0298	0.016	0.02164	0.004418	No Trend	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0355	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-5	Boron	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	4	0.0295	0.015	0.0192	0.004651	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.03379	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-1	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	25	NA	201	166	177.4	9.526	Stable	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	207.4	NA	24	4	99.75	0.9975	3.091	NA	NA
CLF1B-2	Calcium	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	25	NA	210	120	139.1	17.3	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	210	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-3	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	24	NA	257	100	185.6	40.83	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	314.9	NA	23	4	99.75	0.9975	3.104	NA	NA
CLF1B-4	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	25	NA	180	67	112.6	24.15	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	188.7	NA	24	4	99.75	0.9975	3.091	NA	NA
CLF1B-5	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	300	160	247.4	40.93	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	375.8	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-1	Chloride	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	42.4	28.2	36.97	3.953	Decreasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	49.36	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-2	Chloride	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	93.9	39.6	78.16	12.28	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	116.7	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-3	Chloride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	81.2	15.6	26.33	12.34	Stable	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	81.2	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-4	Chloride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	100	47.2	71.56	22.2	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	100	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-5	Chloride	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	27	NA	180	69.5	135	29.12	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	226	NA	26	4	99.75	0.9975	3.067	NA	NA
CLF1B-1	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	25	13	0.19	0.1	0.1176	0.02454	Probably Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.19	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-2	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	25	19	0.16	0.1	0.1068	0.0152	Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.16	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-3	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	25	9	0.2	0.1	0.1264	0.02899	No Trend	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.2	NA	24	4	NA	NA	NA	86.2	13.8

Note:

[a] `Baseline` data refer to the entire statistical dataset, except the most recent data point. Baseline datasets were re-tested for outliers, secular trends, and data normality. No outliers were removed.

Prediction limits calculated using simple replacement with the reporting limit for non-detect results.

UPL = Upper Prediction Limit. LPL = Lower Prediction Limit, calculated for pH, Field only.

			Baseline Data Characterization [a]											Prediction Limits		95% Confidence Parametric Prediction Limit Calculation Details					Non-Parametric Prediction Limit Calculation Details	
Location	Constituent	Units	Baseline Distribution [a]	Prediction Interval Calculation	min baseline sample date	max baseline sample sample	n	n, non-detects	max	min	mean	standard deviation	Trend (Baseline Data)	Prediction Limit Calculation Method	UPL	LPL	degrees of freedom	future samples (M)	confidence level (%) for M sample comparisons	t (percentile of student's t-test)	t quantile	achieved confidence level (%)	false positive rate (%)
CLF1B-4	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	25	22	0.13	0.1	0.1024	0.007234	Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.13	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-5	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	25	22	0.15	0.1	0.1032	0.01069	Stable	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.15	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-1	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	NA	191	123	143.4	13.93	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	191	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-2	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	NA	22.4	12.4	14.91	2.669	No Trend	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	22.4	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-3	Sulfate	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	380	13	191	97.52	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	496.9	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-4	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	34.3	12.2	19.13	6.409	No Trend	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	34.3	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-5	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	27	NA	291	24.2	193.1	76.96	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	291	NA	26	4	NA	NA	NA	87.1	12.9
CLF1B-1	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	672.5	498	592.7	36.33	No Trend	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	706.6	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-2	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	661.2	390	511.4	78.35	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	757.2	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-3	Total Dissolved Solids (TDS)	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	5355	276.7	792.6	943.7	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	5355	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-4	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	612.5	256.7	429.7	111.3	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	778.9	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-5	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	27	NA	1280	528	973.8	202.6	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	1606	NA	26	4	99.75	0.9975	3.067	NA	NA
CLF1B-1	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	6.84	6.27	6.595	0.1378	No Trend	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.027	6.163	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-2	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	7.09	6.5	6.871	0.1397	Probably Decreasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.309	6.433	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-3	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	6.94	6.43	6.695	0.1171	Stable	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.062	6.327	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-4	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	7.38	6.9	7.09	0.1362	Decreasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.518	6.663	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-5	pH, Field	pH units	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	27	NA	6.89	5.57	6.613	0.2311	Probably Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	6.89	5.57	26	4	NA	NA	NA	87.1	12.9

Note:

[a] `Baseline` data refer to the entire statistical dataset, except the most recent data point. Baseline datasets were re-tested for outliers, secular trends, and data normality. No outliers were removed.

Prediction limits calculated using simple replacement with the reporting limit for non-detect results.

UPL = Upper Prediction Limit. LPL = Lower Prediction Limit, calculated for pH, Field only.

Table A-6. Intrawell Prediction Limit Comparison & Statistically Significant Increases

Location	Constituent	Units	Sample Date	Sample Result	Upper Prediction Limit (UPL)	Lower Prediction Limit (LPL)	Intrawell SSI
CLF1B-1	Boron	mg/L	2025-01-27	0.0161	0.0161	NA	No
CLF1B-2	Boron	mg/L	2025-01-27	0.0279	0.0398	NA	No
CLF1B-3	Boron	mg/L	2025-01-27	0.101	0.181	NA	No
CLF1B-4	Boron	mg/L	2025-01-27	0.0298	0.0355	NA	No
CLF1B-5	Boron	mg/L	2025-01-27	0.0295	0.0338	NA	No
CLF1B-1	Calcium	mg/L	2025-01-27	201	207	NA	No
CLF1B-2	Calcium	mg/L	2025-01-27	156	210	NA	No
CLF1B-3	Calcium	mg/L	2025-01-27	188	315	NA	No
CLF1B-4	Calcium	mg/L	2025-01-27	140	189	NA	No
CLF1B-5	Calcium	mg/L	2025-01-27	300	376	NA	No
CLF1B-1	Chloride	mg/L	2025-01-27	29.4	49.4	NA	No
CLF1B-2	Chloride	mg/L	2025-01-27	93.9	117	NA	No
CLF1B-3	Chloride	mg/L	2025-01-27	22.5	81.2	NA	No
CLF1B-4	Chloride	mg/L	2025-01-27	93.3	100	NA	No
CLF1B-5	Chloride	mg/L	2025-01-27	167	226	NA	No
CLF1B-1	Fluoride	mg/L	2025-01-27	0.12	0.19	NA	No
CLF1B-2	Fluoride	mg/L	2025-01-27	0.1	0.16	NA	No
CLF1B-3	Fluoride	mg/L	2025-01-27	0.19	0.2	NA	No
CLF1B-4	Fluoride	mg/L	2025-01-27	0.1	0.13	NA	No
CLF1B-5	Fluoride	mg/L	2025-01-27	0.1	0.15	NA	No
CLF1B-1	Sulfate	mg/L	2025-01-27	191	191	NA	No
CLF1B-2	Sulfate	mg/L	2025-01-27	22	22.4	NA	No
CLF1B-3	Sulfate	mg/L	2025-01-27	205	497	NA	No
CLF1B-4	Sulfate	mg/L	2025-01-27	31.9	34.3	NA	No
CLF1B-5	Sulfate	mg/L	2025-01-27	254	291	NA	No
CLF1B-1	Total Dissolved Solids (TDS)	mg/L	2025-01-27	672.5	706.6	NA	No
CLF1B-2	Total Dissolved Solids (TDS)	mg/L	2025-01-27	645	757.2	NA	No
CLF1B-3	Total Dissolved Solids (TDS)	mg/L	2025-01-27	620	5355	NA	No
CLF1B-4	Total Dissolved Solids (TDS)	mg/L	2025-01-27	612.5	778.9	NA	No
CLF1B-5	Total Dissolved Solids (TDS)	mg/L	2025-01-27	1235	1606	NA	No
CLF1B-1	pH, Field	pH units	2025-01-27	6.58	7.03	6.16	No
CLF1B-2	pH, Field	pH units	2025-01-27	6.99	7.31	6.43	No
CLF1B-3	pH, Field	pH units	2025-01-27	6.92	7.06	6.33	No
CLF1B-4	pH, Field	pH units	2025-01-27	7.14	7.52	6.66	No
CLF1B-5	pH, Field	pH units	2025-01-27	6.89	6.89	5.57	No

Statistically Significant Increases (SSIs) include any sample results that exceed prediction limits. In other words, an SSI is any sample concentration greater than the UPL, or any sample concentration less than the LCL for pH, Field.
< indicates that the constituent was not detected above the method detection limit, the reporting detection limit is shown following the symbol.

Table A-7. Updated Baseline Data Set, January 2025

Location	Constituent	Sample Date	Result	Units
CLF1B-1	Boron	2025-01-27	0.0161	mg/L
CLF1B-1	Boron	2024-06-04	0.0145	mg/L
CLF1B-1	Boron	2024-01-22	0.0156	mg/L
CLF1B-1	Boron	2023-06-12	0.011	mg/L
CLF1B-1	Boron	2023-01-26	0.0142	mg/L
CLF1B-1	Boron	2022-10-31	0.0127	mg/L
CLF1B-1	Boron	2022-06-27	< 0.015	mg/L
CLF1B-1	Boron	2022-01-24	0.0101	mg/L
CLF1B-1	Boron	2021-06-22	< 0.015	mg/L
CLF1B-1	Boron	2021-01-26	< 0.015	mg/L
CLF1B-1	Boron	2020-06-22	< 0.015	mg/L
CLF1B-1	Boron	2020-02-24	< 0.015	mg/L
CLF1B-1	Boron	2019-07-08	< 0.015	mg/L
CLF1B-1	Boron	2019-02-12	< 0.015	mg/L
CLF1B-1	Boron	2018-06-27	< 0.015	mg/L
CLF1B-1	Boron	2018-02-19	< 0.015	mg/L
CLF1B-1	Boron	2017-10-10	0.015	mg/L
CLF1B-1	Boron	2017-09-25	< 0.015	mg/L
CLF1B-1	Boron	2017-07-26	< 0.015	mg/L
CLF1B-1	Boron	2017-04-17	0.016	mg/L
CLF1B-1	Boron	2017-01-30	< 0.015	mg/L
CLF1B-1	Boron	2016-10-13	< 0.015	mg/L
CLF1B-1	Boron	2016-07-18	< 0.015	mg/L
CLF1B-1	Boron	2016-04-19	< 0.015	mg/L
CLF1B-1	Boron	2016-02-01	< 0.015	mg/L
CLF1B-1	Boron	2015-10-21	< 0.015	mg/L
CLF1B-2	Boron	2025-01-27	0.0279	mg/L
CLF1B-2	Boron	2024-06-04	0.0247	mg/L
CLF1B-2	Boron	2024-01-22	0.0241	mg/L
CLF1B-2	Boron	2023-06-12	< 0.01	mg/L
CLF1B-2	Boron	2023-01-25	0.0199	mg/L
CLF1B-2	Boron	2022-10-31	0.0202	mg/L
CLF1B-2	Boron	2022-06-27	0.02	mg/L
CLF1B-2	Boron	2022-01-24	0.0168	mg/L
CLF1B-2	Boron	2021-06-22	0.016	mg/L
CLF1B-2	Boron	2021-01-26	0.017	mg/L
CLF1B-2	Boron	2020-06-22	< 0.015	mg/L
CLF1B-2	Boron	2020-02-24	0.015	mg/L
CLF1B-2	Boron	2019-07-08	0.017	mg/L
CLF1B-2	Boron	2019-02-12	0.016	mg/L
CLF1B-2	Boron	2018-06-27	< 0.015	mg/L
CLF1B-2	Boron	2018-02-19	0.02	mg/L
CLF1B-2	Boron	2017-10-11	0.017	mg/L
CLF1B-2	Boron	2017-09-25	0.016	mg/L
CLF1B-2	Boron	2017-07-26	0.016	mg/L
CLF1B-2	Boron	2017-04-17	0.018	mg/L
CLF1B-2	Boron	2017-01-30	0.0162	mg/L
CLF1B-2	Boron	2016-10-13	0.0157	mg/L
CLF1B-2	Boron	2016-07-19	0.0398	mg/L
CLF1B-2	Boron	2016-04-19	0.0152	mg/L
CLF1B-2	Boron	2016-02-01	< 0.015	mg/L
CLF1B-2	Boron	2015-10-21	0.0186	mg/L
CLF1B-3	Boron	2025-01-27	0.101	mg/L
CLF1B-3	Boron	2024-06-06	0.101	mg/L
CLF1B-3	Boron	2024-01-22	0.0968	mg/L
CLF1B-3	Boron	2023-06-12	0.181	mg/L
CLF1B-3	Boron	2023-01-25	0.0672	mg/L
CLF1B-3	Boron	2022-10-31	0.14	mg/L
CLF1B-3	Boron	2022-06-27	0.12	mg/L
CLF1B-3	Boron	2022-01-24	0.071	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-3	Boron	2021-06-22	0.08	mg/L
CLF1B-3	Boron	2021-01-26	0.034	mg/L
CLF1B-3	Boron	2020-06-22	0.039	mg/L
CLF1B-3	Boron	2020-02-24	0.037	mg/L
CLF1B-3	Boron	2019-07-08	0.04	mg/L
CLF1B-3	Boron	2019-02-12	0.044	mg/L
CLF1B-3	Boron	2018-06-27	0.048	mg/L
CLF1B-3	Boron	2018-02-19	0.031	mg/L
CLF1B-3	Boron	2017-10-11	0.064	mg/L
CLF1B-3	Boron	2017-09-25	0.05	mg/L
CLF1B-3	Boron	2017-07-26	0.047	mg/L
CLF1B-3	Boron	2017-04-17	0.027	mg/L
CLF1B-3	Boron	2017-01-30	0.025	mg/L
CLF1B-3	Boron	2016-10-13	0.0258	mg/L
CLF1B-3	Boron	2016-07-19	0.0417	mg/L
CLF1B-3	Boron	2016-04-19	0.0246	mg/L
CLF1B-3	Boron	2016-02-01	0.0189	mg/L
CLF1B-3	Boron	2015-10-22	0.0172	mg/L
CLF1B-4	Boron	2025-01-27	0.0298	mg/L
CLF1B-4	Boron	2024-06-06	0.0295	mg/L
CLF1B-4	Boron	2024-01-22	0.0253	mg/L
CLF1B-4	Boron	2023-06-12	0.0256	mg/L
CLF1B-4	Boron	2023-01-24	0.0215	mg/L
CLF1B-4	Boron	2022-10-31	0.0265	mg/L
CLF1B-4	Boron	2022-06-27	0.027	mg/L
CLF1B-4	Boron	2022-01-24	0.0183	mg/L
CLF1B-4	Boron	2021-06-22	0.016	mg/L
CLF1B-4	Boron	2021-01-27	0.017	mg/L
CLF1B-4	Boron	2020-06-23	0.023	mg/L
CLF1B-4	Boron	2020-02-24	0.018	mg/L
CLF1B-4	Boron	2019-07-08	0.019	mg/L
CLF1B-4	Boron	2019-02-12	0.018	mg/L
CLF1B-4	Boron	2018-06-28	0.017	mg/L
CLF1B-4	Boron	2018-02-08	0.017	mg/L
CLF1B-4	Boron	2017-10-11	0.02	mg/L
CLF1B-4	Boron	2017-09-26	0.017	mg/L
CLF1B-4	Boron	2017-07-26	0.02	mg/L
CLF1B-4	Boron	2017-04-17	0.019	mg/L
CLF1B-4	Boron	2017-01-30	0.0217	mg/L
CLF1B-4	Boron	2016-10-13	0.0214	mg/L
CLF1B-4	Boron	2016-07-19	0.0204	mg/L
CLF1B-4	Boron	2016-04-19	0.0182	mg/L
CLF1B-4	Boron	2016-01-27	0.0292	mg/L
CLF1B-4	Boron	2015-10-22	0.0272	mg/L
CLF1B-5	Boron	2025-01-27	0.0295	mg/L
CLF1B-5	Boron	2024-06-05	0.0271	mg/L
CLF1B-5	Boron	2024-01-22	0.0273	mg/L
CLF1B-5	Boron	2023-06-12	0.0252	mg/L
CLF1B-5	Boron	2023-01-24	0.0237	mg/L
CLF1B-5	Boron	2022-11-01	0.0244	mg/L
CLF1B-5	Boron	2022-06-27	0.026	mg/L
CLF1B-5	Boron	2022-01-25	0.0165	mg/L
CLF1B-5	Boron	2021-06-23	0.019	mg/L
CLF1B-5	Boron	2021-01-27	0.019	mg/L
CLF1B-5	Boron	2020-06-23	0.019	mg/L
CLF1B-5	Boron	2020-02-25	0.018	mg/L
CLF1B-5	Boron	2019-07-09	0.019	mg/L
CLF1B-5	Boron	2019-02-13	0.018	mg/L
CLF1B-5	Boron	2018-06-27	0.016	mg/L
CLF1B-5	Boron	2018-02-08	0.016	mg/L
CLF1B-5	Boron	2017-10-11	0.019	mg/L
CLF1B-5	Boron	2017-09-26	0.015	mg/L
CLF1B-5	Boron	2017-07-25	0.015	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-5	Boron	2017-04-18	< 0.015	mg/L
CLF1B-5	Boron	2017-01-24	0.0153	mg/L
CLF1B-5	Boron	2016-10-14	< 0.015	mg/L
CLF1B-5	Boron	2016-07-19	< 0.015	mg/L
CLF1B-5	Boron	2016-04-25	< 0.015	mg/L
CLF1B-5	Boron	2016-01-27	0.0155	mg/L
CLF1B-5	Boron	2015-10-22	0.0158	mg/L
CLF1B-1	Calcium	2025-01-27	201	mg/L
CLF1B-1	Calcium	2024-06-04	192	mg/L
CLF1B-1	Calcium	2024-01-22	181	mg/L
CLF1B-1	Calcium	2023-06-12	171	mg/L
CLF1B-1	Calcium	2023-01-26	188	mg/L
CLF1B-1	Calcium	2022-10-31	168	mg/L
CLF1B-1	Calcium	2022-06-27	180	mg/L
CLF1B-1	Calcium	2022-01-24	166	mg/L
CLF1B-1	Calcium	2021-06-22	167	mg/L
CLF1B-1	Calcium	2021-01-26	166	mg/L
CLF1B-1	Calcium	2020-06-22	178	mg/L
CLF1B-1	Calcium	2020-02-24	173	mg/L
CLF1B-1	Calcium	2019-07-08	168	mg/L
CLF1B-1	Calcium	2019-02-12	176	mg/L
CLF1B-1	Calcium	2018-06-27	170	mg/L
CLF1B-1	Calcium	2018-02-19	185	mg/L
CLF1B-1	Calcium	2017-10-10	170	mg/L
CLF1B-1	Calcium	2017-09-25	167	mg/L
CLF1B-1	Calcium	2017-04-17	191	mg/L
CLF1B-1	Calcium	2017-01-30	171	mg/L
CLF1B-1	Calcium	2016-10-13	175	mg/L
CLF1B-1	Calcium	2016-07-18	181	mg/L
CLF1B-1	Calcium	2016-04-19	189	mg/L
CLF1B-1	Calcium	2016-02-01	180	mg/L
CLF1B-1	Calcium	2015-10-21	180	mg/L
CLF1B-2	Calcium	2025-01-27	156	mg/L
CLF1B-2	Calcium	2024-06-04	144	mg/L
CLF1B-2	Calcium	2024-01-22	143	mg/L
CLF1B-2	Calcium	2023-06-12	146	mg/L
CLF1B-2	Calcium	2023-01-25	147	mg/L
CLF1B-2	Calcium	2022-10-31	138	mg/L
CLF1B-2	Calcium	2022-06-27	140	mg/L
CLF1B-2	Calcium	2022-01-24	130	mg/L
CLF1B-2	Calcium	2021-06-22	137	mg/L
CLF1B-2	Calcium	2021-01-26	138	mg/L
CLF1B-2	Calcium	2020-06-22	139	mg/L
CLF1B-2	Calcium	2020-02-24	135	mg/L
CLF1B-2	Calcium	2019-07-08	130	mg/L
CLF1B-2	Calcium	2019-02-12	152	mg/L
CLF1B-2	Calcium	2018-06-27	130	mg/L
CLF1B-2	Calcium	2018-02-19	138	mg/L
CLF1B-2	Calcium	2017-10-11	140	mg/L
CLF1B-2	Calcium	2017-09-25	127	mg/L
CLF1B-2	Calcium	2017-04-17	131	mg/L
CLF1B-2	Calcium	2017-01-30	124	mg/L
CLF1B-2	Calcium	2016-10-13	121	mg/L
CLF1B-2	Calcium	2016-07-19	131	mg/L
CLF1B-2	Calcium	2016-04-19	130	mg/L
CLF1B-2	Calcium	2016-02-01	120	mg/L
CLF1B-2	Calcium	2015-10-21	210	mg/L
CLF1B-3	Calcium	2025-01-27	188	mg/L
CLF1B-3	Calcium	2024-06-06	210	mg/L
CLF1B-3	Calcium	2024-01-22	187	mg/L
CLF1B-3	Calcium	2023-06-12	257	mg/L
CLF1B-3	Calcium	2023-01-25	208	mg/L
CLF1B-3	Calcium	2022-10-31	222	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-3	Calcium	2022-06-27	230	mg/L
CLF1B-3	Calcium	2022-01-24	185	mg/L
CLF1B-3	Calcium	2021-06-22	244	mg/L
CLF1B-3	Calcium	2021-01-26	168	mg/L
CLF1B-3	Calcium	2020-06-22	180	mg/L
CLF1B-3	Calcium	2020-02-24	125	mg/L
CLF1B-3	Calcium	2019-07-08	217	mg/L
CLF1B-3	Calcium	2019-02-12	198	mg/L
CLF1B-3	Calcium	2018-06-27	200	mg/L
CLF1B-3	Calcium	2017-10-11	220	mg/L
CLF1B-3	Calcium	2017-09-25	183	mg/L
CLF1B-3	Calcium	2017-04-17	177	mg/L
CLF1B-3	Calcium	2017-01-30	128	mg/L
CLF1B-3	Calcium	2016-10-13	113	mg/L
CLF1B-3	Calcium	2016-07-19	207	mg/L
CLF1B-3	Calcium	2016-04-19	167	mg/L
CLF1B-3	Calcium	2016-02-01	140	mg/L
CLF1B-3	Calcium	2015-10-22	100	mg/L
CLF1B-4	Calcium	2025-01-27	140	mg/L
CLF1B-4	Calcium	2024-06-06	142	mg/L
CLF1B-4	Calcium	2024-01-22	128	mg/L
CLF1B-4	Calcium	2023-06-12	133	mg/L
CLF1B-4	Calcium	2023-01-24	133	mg/L
CLF1B-4	Calcium	2022-10-31	130	mg/L
CLF1B-4	Calcium	2022-06-27	140	mg/L
CLF1B-4	Calcium	2022-01-24	116	mg/L
CLF1B-4	Calcium	2021-06-22	118	mg/L
CLF1B-4	Calcium	2021-01-27	106	mg/L
CLF1B-4	Calcium	2020-06-23	117	mg/L
CLF1B-4	Calcium	2020-02-24	103	mg/L
CLF1B-4	Calcium	2019-07-08	102	mg/L
CLF1B-4	Calcium	2019-02-12	110	mg/L
CLF1B-4	Calcium	2018-06-28	92	mg/L
CLF1B-4	Calcium	2018-02-08	89.9	mg/L
CLF1B-4	Calcium	2017-10-11	92	mg/L
CLF1B-4	Calcium	2017-09-26	92.6	mg/L
CLF1B-4	Calcium	2017-04-17	92.9	mg/L
CLF1B-4	Calcium	2017-01-30	88.1	mg/L
CLF1B-4	Calcium	2016-10-13	180	mg/L
CLF1B-4	Calcium	2016-07-19	97.3	mg/L
CLF1B-4	Calcium	2016-04-19	94.5	mg/L
CLF1B-4	Calcium	2016-01-27	67	mg/L
CLF1B-4	Calcium	2015-10-22	110	mg/L
CLF1B-5	Calcium	2025-01-27	300	mg/L
CLF1B-5	Calcium	2024-06-05	287	mg/L
CLF1B-5	Calcium	2024-01-22	278	mg/L
CLF1B-5	Calcium	2023-06-12	293	mg/L
CLF1B-5	Calcium	2023-01-24	289	mg/L
CLF1B-5	Calcium	2022-11-01	274	mg/L
CLF1B-5	Calcium	2022-06-27	290	mg/L
CLF1B-5	Calcium	2022-01-25	276	mg/L
CLF1B-5	Calcium	2021-06-23	272	mg/L
CLF1B-5	Calcium	2021-01-27	264	mg/L
CLF1B-5	Calcium	2020-06-23	265	mg/L
CLF1B-5	Calcium	2020-02-25	256	mg/L
CLF1B-5	Calcium	2019-07-09	256	mg/L
CLF1B-5	Calcium	2019-05-21	264	mg/L
CLF1B-5	Calcium	2019-02-13	257	mg/L
CLF1B-5	Calcium	2018-06-27	250	mg/L
CLF1B-5	Calcium	2018-02-08	279	mg/L
CLF1B-5	Calcium	2017-10-11	220	mg/L
CLF1B-5	Calcium	2017-09-26	224	mg/L
CLF1B-5	Calcium	2017-04-18	223	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-5	Calcium	2017-01-24	205	mg/L
CLF1B-5	Calcium	2016-10-14	196	mg/L
CLF1B-5	Calcium	2016-07-19	202	mg/L
CLF1B-5	Calcium	2016-04-25	192	mg/L
CLF1B-5	Calcium	2016-01-27	160	mg/L
CLF1B-5	Calcium	2015-10-22	160	mg/L
CLF1B-1	Chloride	2025-01-27	29.4	mg/L
CLF1B-1	Chloride	2024-06-04	30.4	mg/L
CLF1B-1	Chloride	2024-01-22	28.2	mg/L
CLF1B-1	Chloride	2023-06-12	33.6	mg/L
CLF1B-1	Chloride	2023-01-26	33.9	mg/L
CLF1B-1	Chloride	2022-10-31	36.7	mg/L
CLF1B-1	Chloride	2022-06-27	42.4	mg/L
CLF1B-1	Chloride	2022-01-24	42.2	mg/L
CLF1B-1	Chloride	2021-06-22	41	mg/L
CLF1B-1	Chloride	2021-01-26	34	mg/L
CLF1B-1	Chloride	2020-06-22	33.2	mg/L
CLF1B-1	Chloride	2020-02-24	37.3	mg/L
CLF1B-1	Chloride	2019-07-08	40.6	mg/L
CLF1B-1	Chloride	2019-02-12	36.3	mg/L
CLF1B-1	Chloride	2018-06-27	39.3	mg/L
CLF1B-1	Chloride	2018-02-19	34.4	mg/L
CLF1B-1	Chloride	2017-10-10	37.4	mg/L
CLF1B-1	Chloride	2017-09-25	38.9	mg/L
CLF1B-1	Chloride	2017-07-26	38.9	mg/L
CLF1B-1	Chloride	2017-04-17	34.2	mg/L
CLF1B-1	Chloride	2017-01-30	38.7	mg/L
CLF1B-1	Chloride	2016-10-13	41	mg/L
CLF1B-1	Chloride	2016-07-18	41.5	mg/L
CLF1B-1	Chloride	2016-04-19	39.2	mg/L
CLF1B-1	Chloride	2016-02-01	39.7	mg/L
CLF1B-1	Chloride	2015-10-21	38.7	mg/L
CLF1B-2	Chloride	2025-01-27	93.9	mg/L
CLF1B-2	Chloride	2024-06-04	93.2	mg/L
CLF1B-2	Chloride	2024-01-22	93.1	mg/L
CLF1B-2	Chloride	2023-06-12	89.8	mg/L
CLF1B-2	Chloride	2023-01-25	86.9	mg/L
CLF1B-2	Chloride	2022-10-31	87.9	mg/L
CLF1B-2	Chloride	2022-06-27	89.3	mg/L
CLF1B-2	Chloride	2022-01-24	86.4	mg/L
CLF1B-2	Chloride	2021-06-22	90.2	mg/L
CLF1B-2	Chloride	2021-01-26	84.1	mg/L
CLF1B-2	Chloride	2020-06-22	82.6	mg/L
CLF1B-2	Chloride	2020-02-24	82.5	mg/L
CLF1B-2	Chloride	2019-07-08	39.6	mg/L
CLF1B-2	Chloride	2019-02-12	80.1	mg/L
CLF1B-2	Chloride	2018-06-27	78	mg/L
CLF1B-2	Chloride	2018-02-19	75.8	mg/L
CLF1B-2	Chloride	2017-10-11	74.1	mg/L
CLF1B-2	Chloride	2017-09-25	76	mg/L
CLF1B-2	Chloride	2017-07-26	74.7	mg/L
CLF1B-2	Chloride	2017-04-17	69.7	mg/L
CLF1B-2	Chloride	2017-01-30	70.4	mg/L
CLF1B-2	Chloride	2016-10-13	69	mg/L
CLF1B-2	Chloride	2016-07-19	70.9	mg/L
CLF1B-2	Chloride	2016-04-19	66.6	mg/L
CLF1B-2	Chloride	2016-02-01	64.6	mg/L
CLF1B-2	Chloride	2015-10-21	62.7	mg/L
CLF1B-3	Chloride	2025-01-27	22.5	mg/L
CLF1B-3	Chloride	2024-06-06	42.3	mg/L
CLF1B-3	Chloride	2024-01-22	18.8	mg/L
CLF1B-3	Chloride	2023-06-12	15.6	mg/L
CLF1B-3	Chloride	2023-01-25	19.3	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-3	Chloride	2022-10-31	18	mg/L
CLF1B-3	Chloride	2022-06-27	22.8	mg/L
CLF1B-3	Chloride	2022-01-24	23.7	mg/L
CLF1B-3	Chloride	2021-06-22	27.6	mg/L
CLF1B-3	Chloride	2021-01-26	23.6	mg/L
CLF1B-3	Chloride	2020-06-22	23.7	mg/L
CLF1B-3	Chloride	2020-02-24	26	mg/L
CLF1B-3	Chloride	2019-07-08	81.2	mg/L
CLF1B-3	Chloride	2019-02-12	29	mg/L
CLF1B-3	Chloride	2018-06-27	34.2	mg/L
CLF1B-3	Chloride	2018-02-19	23	mg/L
CLF1B-3	Chloride	2017-10-11	24.8	mg/L
CLF1B-3	Chloride	2017-09-25	22.7	mg/L
CLF1B-3	Chloride	2017-07-26	22	mg/L
CLF1B-3	Chloride	2017-04-17	20.8	mg/L
CLF1B-3	Chloride	2017-01-30	23	mg/L
CLF1B-3	Chloride	2016-10-13	25.2	mg/L
CLF1B-3	Chloride	2016-07-19	23.5	mg/L
CLF1B-3	Chloride	2016-04-19	22.1	mg/L
CLF1B-3	Chloride	2016-02-01	22.4	mg/L
CLF1B-3	Chloride	2015-10-22	26.8	mg/L
CLF1B-4	Chloride	2025-01-27	93.3	mg/L
CLF1B-4	Chloride	2024-06-06	98.1	mg/L
CLF1B-4	Chloride	2024-01-22	100	mg/L
CLF1B-4	Chloride	2023-06-12	98.3	mg/L
CLF1B-4	Chloride	2023-01-24	93.5	mg/L
CLF1B-4	Chloride	2022-10-31	99.5	mg/L
CLF1B-4	Chloride	2022-06-27	100	mg/L
CLF1B-4	Chloride	2022-01-24	99.3	mg/L
CLF1B-4	Chloride	2021-06-22	99.9	mg/L
CLF1B-4	Chloride	2021-01-27	82.2	mg/L
CLF1B-4	Chloride	2020-06-23	88.2	mg/L
CLF1B-4	Chloride	2020-02-24	77.7	mg/L
CLF1B-4	Chloride	2019-07-08	66.5	mg/L
CLF1B-4	Chloride	2019-02-12	54.4	mg/L
CLF1B-4	Chloride	2018-06-28	50.5	mg/L
CLF1B-4	Chloride	2018-02-08	47.2	mg/L
CLF1B-4	Chloride	2017-10-11	49.9	mg/L
CLF1B-4	Chloride	2017-09-26	53.1	mg/L
CLF1B-4	Chloride	2017-07-26	56	mg/L
CLF1B-4	Chloride	2017-04-17	47.4	mg/L
CLF1B-4	Chloride	2017-01-30	49.1	mg/L
CLF1B-4	Chloride	2016-10-13	50.7	mg/L
CLF1B-4	Chloride	2016-07-19	52.7	mg/L
CLF1B-4	Chloride	2016-04-19	50.9	mg/L
CLF1B-4	Chloride	2016-01-27	51.1	mg/L
CLF1B-4	Chloride	2015-10-22	51.1	mg/L
CLF1B-5	Chloride	2025-01-27	167	mg/L
CLF1B-5	Chloride	2024-06-05	176	mg/L
CLF1B-5	Chloride	2024-01-22	168	mg/L
CLF1B-5	Chloride	2023-06-12	167	mg/L
CLF1B-5	Chloride	2023-01-24	157	mg/L
CLF1B-5	Chloride	2022-11-01	180	mg/L
CLF1B-5	Chloride	2022-06-27	168	mg/L
CLF1B-5	Chloride	2022-01-25	152	mg/L
CLF1B-5	Chloride	2021-06-23	174	mg/L
CLF1B-5	Chloride	2021-01-27	152	mg/L
CLF1B-5	Chloride	2020-06-23	139	mg/L
CLF1B-5	Chloride	2020-02-25	138	mg/L
CLF1B-5	Chloride	2019-07-09	151	mg/L
CLF1B-5	Chloride	2019-05-21	127	mg/L
CLF1B-5	Chloride	2019-02-13	134	mg/L
CLF1B-5	Chloride	2018-06-27	117	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-5	Chloride	2018-02-08	120	mg/L
CLF1B-5	Chloride	2017-10-11	117	mg/L
CLF1B-5	Chloride	2017-09-26	118	mg/L
CLF1B-5	Chloride	2017-07-25	117	mg/L
CLF1B-5	Chloride	2017-04-18	114	mg/L
CLF1B-5	Chloride	2017-01-24	110	mg/L
CLF1B-5	Chloride	2016-10-14	109	mg/L
CLF1B-5	Chloride	2016-07-19	113	mg/L
CLF1B-5	Chloride	2016-04-25	99.8	mg/L
CLF1B-5	Chloride	2016-01-27	90.9	mg/L
CLF1B-5	Chloride	2015-10-22	69.5	mg/L
CLF1B-1	Fluoride	2025-01-27	0.12	mg/L
CLF1B-1	Fluoride	2024-06-04	< 0.1	mg/L
CLF1B-1	Fluoride	2024-01-22	< 0.1	mg/L
CLF1B-1	Fluoride	2023-06-12	< 0.1	mg/L
CLF1B-1	Fluoride	2023-01-26	< 0.1	mg/L
CLF1B-1	Fluoride	2022-10-31	0.11	mg/L
CLF1B-1	Fluoride	2022-06-27	0.14	mg/L
CLF1B-1	Fluoride	2022-01-24	< 0.1	mg/L
CLF1B-1	Fluoride	2021-06-22	< 0.1	mg/L
CLF1B-1	Fluoride	2021-01-26	< 0.1	mg/L
CLF1B-1	Fluoride	2020-06-22	< 0.1	mg/L
CLF1B-1	Fluoride	2020-02-24	< 0.1	mg/L
CLF1B-1	Fluoride	2019-07-08	< 0.1	mg/L
CLF1B-1	Fluoride	2019-02-12	< 0.1	mg/L
CLF1B-1	Fluoride	2018-06-27	0.15	mg/L
CLF1B-1	Fluoride	2018-02-19	0.19	mg/L
CLF1B-1	Fluoride	2017-10-10	0.13	mg/L
CLF1B-1	Fluoride	2017-09-25	< 0.1	mg/L
CLF1B-1	Fluoride	2017-04-17	0.14	mg/L
CLF1B-1	Fluoride	2017-01-30	0.13	mg/L
CLF1B-1	Fluoride	2016-10-13	< 0.1	mg/L
CLF1B-1	Fluoride	2016-07-18	0.12	mg/L
CLF1B-1	Fluoride	2016-04-19	0.12	mg/L
CLF1B-1	Fluoride	2016-02-01	0.12	mg/L
CLF1B-1	Fluoride	2015-10-21	0.17	mg/L
CLF1B-2	Fluoride	2025-01-27	< 0.1	mg/L
CLF1B-2	Fluoride	2024-06-04	< 0.1	mg/L
CLF1B-2	Fluoride	2024-01-22	< 0.1	mg/L
CLF1B-2	Fluoride	2023-06-12	< 0.1	mg/L
CLF1B-2	Fluoride	2023-01-25	< 0.1	mg/L
CLF1B-2	Fluoride	2022-10-31	< 0.1	mg/L
CLF1B-2	Fluoride	2022-06-27	< 0.1	mg/L
CLF1B-2	Fluoride	2022-01-24	< 0.1	mg/L
CLF1B-2	Fluoride	2021-06-22	< 0.1	mg/L
CLF1B-2	Fluoride	2021-01-26	< 0.1	mg/L
CLF1B-2	Fluoride	2020-06-22	< 0.1	mg/L
CLF1B-2	Fluoride	2020-02-24	< 0.1	mg/L
CLF1B-2	Fluoride	2019-07-08	< 0.1	mg/L
CLF1B-2	Fluoride	2019-02-12	< 0.1	mg/L
CLF1B-2	Fluoride	2018-06-27	0.14	mg/L
CLF1B-2	Fluoride	2018-02-19	0.13	mg/L
CLF1B-2	Fluoride	2017-10-11	0.11	mg/L
CLF1B-2	Fluoride	2017-09-25	< 0.1	mg/L
CLF1B-2	Fluoride	2017-04-17	0.12	mg/L
CLF1B-2	Fluoride	2017-01-30	< 0.1	mg/L
CLF1B-2	Fluoride	2016-10-13	< 0.1	mg/L
CLF1B-2	Fluoride	2016-07-19	< 0.1	mg/L
CLF1B-2	Fluoride	2016-04-19	< 0.1	mg/L
CLF1B-2	Fluoride	2016-02-01	0.11	mg/L
CLF1B-2	Fluoride	2015-10-21	0.16	mg/L
CLF1B-3	Fluoride	2025-01-27	0.19	mg/L
CLF1B-3	Fluoride	2024-06-06	0.12	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-3	Fluoride	2024-01-22	< 0.1	mg/L
CLF1B-3	Fluoride	2023-06-12	0.17	mg/L
CLF1B-3	Fluoride	2023-01-25	< 0.1	mg/L
CLF1B-3	Fluoride	2022-10-31	0.12	mg/L
CLF1B-3	Fluoride	2022-06-27	0.2	mg/L
CLF1B-3	Fluoride	2022-01-24	0.14	mg/L
CLF1B-3	Fluoride	2021-06-22	0.14	mg/L
CLF1B-3	Fluoride	2021-01-26	< 0.1	mg/L
CLF1B-3	Fluoride	2020-06-22	0.11	mg/L
CLF1B-3	Fluoride	2020-02-24	< 0.1	mg/L
CLF1B-3	Fluoride	2019-07-08	< 0.1	mg/L
CLF1B-3	Fluoride	2019-02-12	< 0.1	mg/L
CLF1B-3	Fluoride	2018-06-27	0.15	mg/L
CLF1B-3	Fluoride	2018-02-19	0.15	mg/L
CLF1B-3	Fluoride	2017-10-11	0.15	mg/L
CLF1B-3	Fluoride	2017-09-25	< 0.1	mg/L
CLF1B-3	Fluoride	2017-04-17	0.13	mg/L
CLF1B-3	Fluoride	2017-01-30	0.12	mg/L
CLF1B-3	Fluoride	2016-10-13	< 0.1	mg/L
CLF1B-3	Fluoride	2016-07-19	< 0.1	mg/L
CLF1B-3	Fluoride	2016-04-19	0.12	mg/L
CLF1B-3	Fluoride	2016-02-01	0.13	mg/L
CLF1B-3	Fluoride	2015-10-22	0.12	mg/L
CLF1B-4	Fluoride	2025-01-27	< 0.1	mg/L
CLF1B-4	Fluoride	2024-06-06	< 0.1	mg/L
CLF1B-4	Fluoride	2024-01-22	< 0.1	mg/L
CLF1B-4	Fluoride	2023-06-12	< 0.1	mg/L
CLF1B-4	Fluoride	2023-01-24	< 0.1	mg/L
CLF1B-4	Fluoride	2022-10-31	< 0.1	mg/L
CLF1B-4	Fluoride	2022-06-27	< 0.1	mg/L
CLF1B-4	Fluoride	2022-01-24	< 0.1	mg/L
CLF1B-4	Fluoride	2021-06-22	< 0.1	mg/L
CLF1B-4	Fluoride	2021-01-27	< 0.1	mg/L
CLF1B-4	Fluoride	2020-06-23	< 0.1	mg/L
CLF1B-4	Fluoride	2020-02-24	< 0.1	mg/L
CLF1B-4	Fluoride	2019-07-08	< 0.1	mg/L
CLF1B-4	Fluoride	2019-02-12	< 0.1	mg/L
CLF1B-4	Fluoride	2018-06-28	< 0.1	mg/L
CLF1B-4	Fluoride	2018-02-08	< 0.1	mg/L
CLF1B-4	Fluoride	2017-10-11	< 0.1	mg/L
CLF1B-4	Fluoride	2017-09-26	< 0.1	mg/L
CLF1B-4	Fluoride	2017-04-17	0.11	mg/L
CLF1B-4	Fluoride	2017-01-30	< 0.1	mg/L
CLF1B-4	Fluoride	2016-10-13	< 0.1	mg/L
CLF1B-4	Fluoride	2016-07-19	< 0.1	mg/L
CLF1B-4	Fluoride	2016-04-19	< 0.1	mg/L
CLF1B-4	Fluoride	2016-01-27	0.13	mg/L
CLF1B-4	Fluoride	2015-10-22	0.12	mg/L
CLF1B-5	Fluoride	2025-01-27	< 0.1	mg/L
CLF1B-5	Fluoride	2024-06-05	< 0.1	mg/L
CLF1B-5	Fluoride	2024-01-22	< 0.1	mg/L
CLF1B-5	Fluoride	2023-06-12	< 0.1	mg/L
CLF1B-5	Fluoride	2023-01-24	< 0.1	mg/L
CLF1B-5	Fluoride	2022-11-01	< 0.1	mg/L
CLF1B-5	Fluoride	2022-06-27	< 0.1	mg/L
CLF1B-5	Fluoride	2022-01-25	< 0.1	mg/L
CLF1B-5	Fluoride	2021-06-23	< 0.1	mg/L
CLF1B-5	Fluoride	2021-01-27	< 0.1	mg/L
CLF1B-5	Fluoride	2020-06-23	< 0.1	mg/L
CLF1B-5	Fluoride	2020-02-25	< 0.1	mg/L
CLF1B-5	Fluoride	2019-07-09	< 0.1	mg/L
CLF1B-5	Fluoride	2019-02-13	< 0.1	mg/L
CLF1B-5	Fluoride	2018-06-27	0.15	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-5	Fluoride	2018-02-08	0.12	mg/L
CLF1B-5	Fluoride	2017-10-11	< 0.1	mg/L
CLF1B-5	Fluoride	2017-09-26	< 0.1	mg/L
CLF1B-5	Fluoride	2017-04-18	< 0.1	mg/L
CLF1B-5	Fluoride	2017-01-24	< 0.1	mg/L
CLF1B-5	Fluoride	2016-10-14	< 0.1	mg/L
CLF1B-5	Fluoride	2016-07-19	< 0.1	mg/L
CLF1B-5	Fluoride	2016-04-25	< 0.1	mg/L
CLF1B-5	Fluoride	2016-01-27	< 0.1	mg/L
CLF1B-5	Fluoride	2015-10-22	0.11	mg/L
CLF1B-1	Sulfate	2025-01-27	191	mg/L
CLF1B-1	Sulfate	2024-06-04	160	mg/L
CLF1B-1	Sulfate	2024-01-22	155	mg/L
CLF1B-1	Sulfate	2023-06-12	141	mg/L
CLF1B-1	Sulfate	2023-01-26	136	mg/L
CLF1B-1	Sulfate	2022-10-31	134	mg/L
CLF1B-1	Sulfate	2022-06-27	149	mg/L
CLF1B-1	Sulfate	2022-01-24	154	mg/L
CLF1B-1	Sulfate	2021-06-22	133	mg/L
CLF1B-1	Sulfate	2021-01-26	132	mg/L
CLF1B-1	Sulfate	2020-06-22	133	mg/L
CLF1B-1	Sulfate	2020-02-24	159	mg/L
CLF1B-1	Sulfate	2019-07-08	144	mg/L
CLF1B-1	Sulfate	2019-02-12	139	mg/L
CLF1B-1	Sulfate	2018-06-27	143	mg/L
CLF1B-1	Sulfate	2018-02-19	145	mg/L
CLF1B-1	Sulfate	2017-10-10	131	mg/L
CLF1B-1	Sulfate	2017-09-25	135	mg/L
CLF1B-1	Sulfate	2017-07-26	129	mg/L
CLF1B-1	Sulfate	2017-04-17	150	mg/L
CLF1B-1	Sulfate	2017-01-30	153	mg/L
CLF1B-1	Sulfate	2016-10-13	153	mg/L
CLF1B-1	Sulfate	2016-07-18	134	mg/L
CLF1B-1	Sulfate	2016-04-19	136	mg/L
CLF1B-1	Sulfate	2016-02-01	136	mg/L
CLF1B-1	Sulfate	2015-10-21	123	mg/L
CLF1B-2	Sulfate	2025-01-27	22	mg/L
CLF1B-2	Sulfate	2024-06-04	15	mg/L
CLF1B-2	Sulfate	2024-01-22	16.5	mg/L
CLF1B-2	Sulfate	2023-06-12	14.6	mg/L
CLF1B-2	Sulfate	2023-01-25	14.5	mg/L
CLF1B-2	Sulfate	2022-10-31	14.1	mg/L
CLF1B-2	Sulfate	2022-06-27	15.3	mg/L
CLF1B-2	Sulfate	2022-01-24	14.4	mg/L
CLF1B-2	Sulfate	2021-06-22	14.7	mg/L
CLF1B-2	Sulfate	2021-01-26	14.6	mg/L
CLF1B-2	Sulfate	2020-06-22	13.5	mg/L
CLF1B-2	Sulfate	2020-02-24	13.9	mg/L
CLF1B-2	Sulfate	2019-07-08	12.5	mg/L
CLF1B-2	Sulfate	2019-02-12	13.5	mg/L
CLF1B-2	Sulfate	2018-06-27	12.9	mg/L
CLF1B-2	Sulfate	2018-02-19	13.2	mg/L
CLF1B-2	Sulfate	2017-10-11	12.9	mg/L
CLF1B-2	Sulfate	2017-09-25	12.5	mg/L
CLF1B-2	Sulfate	2017-07-26	12.4	mg/L
CLF1B-2	Sulfate	2017-04-17	16.4	mg/L
CLF1B-2	Sulfate	2017-01-30	13	mg/L
CLF1B-2	Sulfate	2016-10-13	13.3	mg/L
CLF1B-2	Sulfate	2016-07-19	13.7	mg/L
CLF1B-2	Sulfate	2016-04-19	16.3	mg/L
CLF1B-2	Sulfate	2016-02-01	19.6	mg/L
CLF1B-2	Sulfate	2015-10-21	22.4	mg/L
CLF1B-3	Sulfate	2025-01-27	205	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-3	Sulfate	2024-06-06	270	mg/L
CLF1B-3	Sulfate	2024-01-22	247	mg/L
CLF1B-3	Sulfate	2023-06-12	380	mg/L
CLF1B-3	Sulfate	2023-01-25	246	mg/L
CLF1B-3	Sulfate	2022-10-31	338	mg/L
CLF1B-3	Sulfate	2022-06-27	355	mg/L
CLF1B-3	Sulfate	2022-01-24	245	mg/L
CLF1B-3	Sulfate	2021-06-22	349	mg/L
CLF1B-3	Sulfate	2021-01-26	177	mg/L
CLF1B-3	Sulfate	2020-06-22	196	mg/L
CLF1B-3	Sulfate	2020-02-24	95.2	mg/L
CLF1B-3	Sulfate	2019-07-08	13	mg/L
CLF1B-3	Sulfate	2019-02-12	191	mg/L
CLF1B-3	Sulfate	2018-06-27	166	mg/L
CLF1B-3	Sulfate	2018-02-19	132	mg/L
CLF1B-3	Sulfate	2017-10-11	226	mg/L
CLF1B-3	Sulfate	2017-09-25	174	mg/L
CLF1B-3	Sulfate	2017-07-26	194	mg/L
CLF1B-3	Sulfate	2017-04-17	159	mg/L
CLF1B-3	Sulfate	2017-01-30	84.4	mg/L
CLF1B-3	Sulfate	2016-10-13	63.9	mg/L
CLF1B-3	Sulfate	2016-07-19	203	mg/L
CLF1B-3	Sulfate	2016-04-19	116	mg/L
CLF1B-3	Sulfate	2016-02-01	107	mg/L
CLF1B-3	Sulfate	2015-10-22	33	mg/L
CLF1B-4	Sulfate	2025-01-27	31.9	mg/L
CLF1B-4	Sulfate	2024-06-06	29	mg/L
CLF1B-4	Sulfate	2024-01-22	19.4	mg/L
CLF1B-4	Sulfate	2023-06-12	20.4	mg/L
CLF1B-4	Sulfate	2023-01-24	16.5	mg/L
CLF1B-4	Sulfate	2022-10-31	23.8	mg/L
CLF1B-4	Sulfate	2022-06-27	26.6	mg/L
CLF1B-4	Sulfate	2022-01-24	18.1	mg/L
CLF1B-4	Sulfate	2021-06-22	16.4	mg/L
CLF1B-4	Sulfate	2021-01-27	12.2	mg/L
CLF1B-4	Sulfate	2020-06-23	17.1	mg/L
CLF1B-4	Sulfate	2020-02-24	14.6	mg/L
CLF1B-4	Sulfate	2019-07-08	13.9	mg/L
CLF1B-4	Sulfate	2019-02-12	13.7	mg/L
CLF1B-4	Sulfate	2018-06-28	13.4	mg/L
CLF1B-4	Sulfate	2018-02-08	14.8	mg/L
CLF1B-4	Sulfate	2017-10-11	13.7	mg/L
CLF1B-4	Sulfate	2017-09-26	14.3	mg/L
CLF1B-4	Sulfate	2017-07-26	14.8	mg/L
CLF1B-4	Sulfate	2017-04-17	16.1	mg/L
CLF1B-4	Sulfate	2017-01-30	16.3	mg/L
CLF1B-4	Sulfate	2016-10-13	15.3	mg/L
CLF1B-4	Sulfate	2016-07-19	17.4	mg/L
CLF1B-4	Sulfate	2016-04-19	22.4	mg/L
CLF1B-4	Sulfate	2016-01-27	31.1	mg/L
CLF1B-4	Sulfate	2015-10-22	34.3	mg/L
CLF1B-5	Sulfate	2025-01-27	254	mg/L
CLF1B-5	Sulfate	2024-06-05	256	mg/L
CLF1B-5	Sulfate	2024-01-22	256	mg/L
CLF1B-5	Sulfate	2023-06-12	249	mg/L
CLF1B-5	Sulfate	2023-01-24	257	mg/L
CLF1B-5	Sulfate	2022-11-01	264	mg/L
CLF1B-5	Sulfate	2022-06-27	262	mg/L
CLF1B-5	Sulfate	2022-01-25	291	mg/L
CLF1B-5	Sulfate	2021-06-23	251	mg/L
CLF1B-5	Sulfate	2021-01-27	238	mg/L
CLF1B-5	Sulfate	2020-06-23	228	mg/L
CLF1B-5	Sulfate	2020-02-25	230	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-5	Sulfate	2019-07-09	236	mg/L
CLF1B-5	Sulfate	2019-05-21	209	mg/L
CLF1B-5	Sulfate	2019-02-13	203	mg/L
CLF1B-5	Sulfate	2018-06-27	176	mg/L
CLF1B-5	Sulfate	2018-02-08	278	mg/L
CLF1B-5	Sulfate	2017-10-11	177	mg/L
CLF1B-5	Sulfate	2017-09-26	165	mg/L
CLF1B-5	Sulfate	2017-07-25	161	mg/L
CLF1B-5	Sulfate	2017-04-18	130	mg/L
CLF1B-5	Sulfate	2017-01-24	112	mg/L
CLF1B-5	Sulfate	2016-10-14	110	mg/L
CLF1B-5	Sulfate	2016-07-19	87.3	mg/L
CLF1B-5	Sulfate	2016-04-25	63.6	mg/L
CLF1B-5	Sulfate	2016-01-27	44.4	mg/L
CLF1B-5	Sulfate	2015-10-22	24.2	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2025-01-27	672.5	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2024-06-04	607.5	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2024-01-22	617.5	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2023-06-12	608.8	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2023-01-26	635	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2022-10-31	576.2	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2022-06-27	583.8	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2022-01-24	568.8	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2021-06-22	583.8	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2021-01-26	556.2	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2020-06-22	577.5	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2020-02-24	558.8	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2019-07-08	580	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2019-02-12	617.5	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2018-06-27	585	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2018-02-19	648.6	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2017-10-10	581.7	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2017-09-25	498	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2017-07-26	614	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2017-04-17	556	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2017-01-30	602	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2016-10-13	651.7	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2016-07-18	574	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2016-04-19	558.3	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2016-02-01	602	mg/L
CLF1B-1	Total Dissolved Solids (TDS)	2015-10-21	594	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2025-01-27	645	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2024-06-04	626.2	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2024-01-22	610	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2023-06-12	661.2	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2023-01-25	580	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2022-10-31	536.2	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2022-06-27	571.2	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2022-01-24	436.2	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2021-06-22	597.5	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2021-01-26	485	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2020-06-22	535	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2020-02-24	455	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2019-07-08	545	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2019-02-12	476.2	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2018-06-27	535	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2018-02-19	524.3	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2017-10-11	396.7	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2017-09-25	398	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2017-07-26	512	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2017-04-17	390	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2017-01-30	462	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2016-10-13	486.7	mg/L

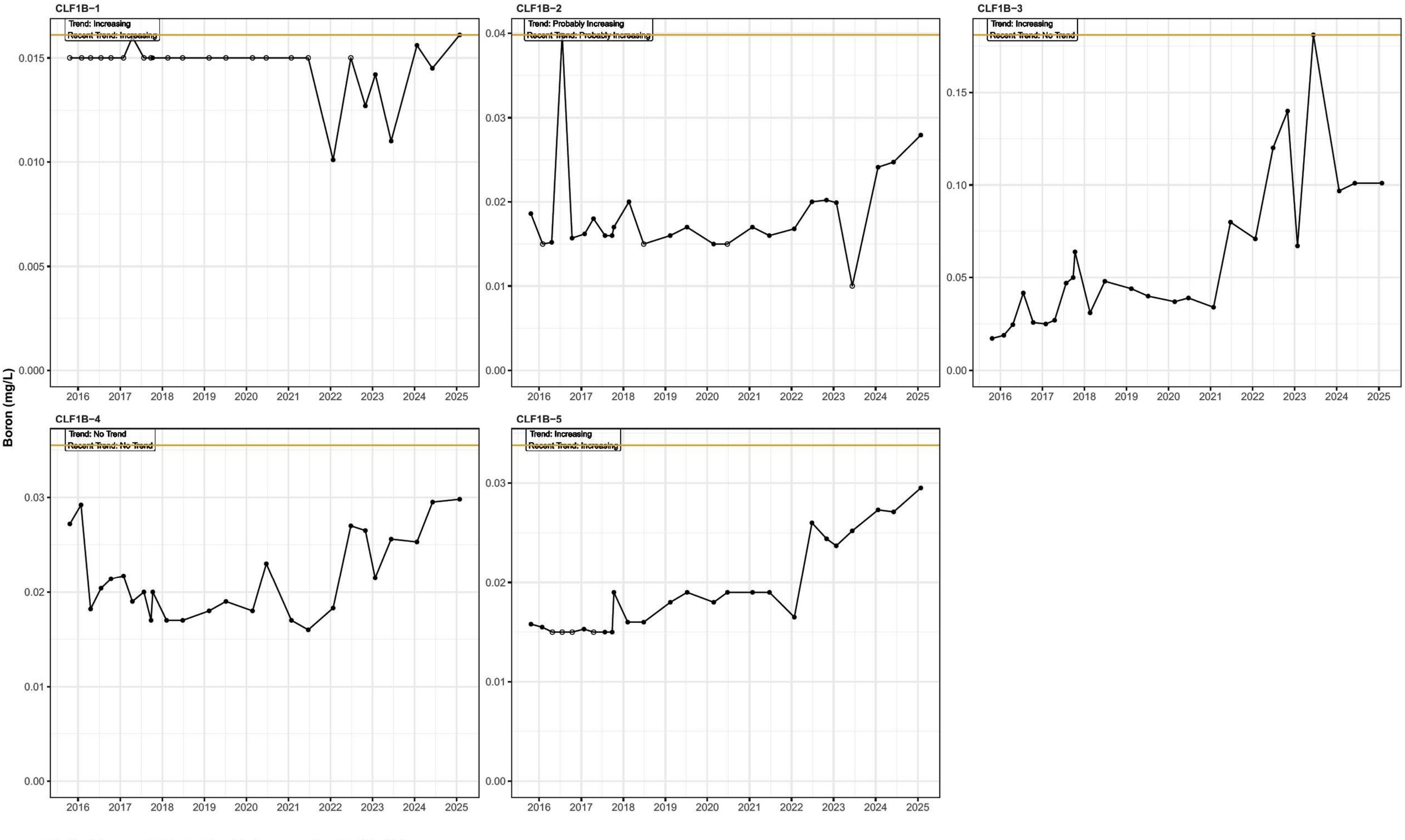
Location	Constituent	Sample Date	Result	Units
CLF1B-2	Total Dissolved Solids (TDS)	2016-07-19	512	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2016-04-19	415	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2016-02-01	433	mg/L
CLF1B-2	Total Dissolved Solids (TDS)	2015-10-21	472	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2025-01-27	620	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2024-06-06	810	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2024-01-22	642.5	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2023-06-12	898.8	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2023-01-25	637.5	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2022-10-31	787.5	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2022-06-27	791.2	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2022-01-24	643.8	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2021-06-22	837.5	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2021-01-26	562.5	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2020-06-22	583.8	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2020-02-24	388.8	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2019-07-08	755	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2019-02-12	651.2	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2018-06-27	656.2	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2018-02-19	542.9	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2017-10-11	621.7	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2017-09-25	530	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2017-07-26	674	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2017-04-17	452	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2017-01-30	430	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2016-10-13	276.7	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2016-07-19	686	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2016-04-19	5355	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2016-02-01	447	mg/L
CLF1B-3	Total Dissolved Solids (TDS)	2015-10-22	326	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2025-01-27	612.5	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2024-06-06	586.2	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2024-01-22	603.8	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2023-06-12	607.5	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2023-01-24	552.5	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2022-10-31	553.8	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2022-06-27	490	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2022-01-24	417.5	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2021-06-22	552.5	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2021-01-27	418.8	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2020-06-23	513.8	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2020-02-24	371.2	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2019-07-08	427.5	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2019-02-12	331.2	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2018-06-28	380	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2018-02-08	434	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2017-10-11	256.7	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2017-09-26	286	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2017-07-26	396	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2017-04-17	278	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2017-01-30	344	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2016-10-13	360	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2016-07-19	384	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2016-04-19	290	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2016-01-27	375	mg/L
CLF1B-4	Total Dissolved Solids (TDS)	2015-10-22	350	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2025-01-27	1235	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2024-06-05	1222	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2024-01-22	1131	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2023-06-12	1280	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2023-01-24	1222	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2022-11-01	1099	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2022-06-27	1148	mg/L

Location	Constituent	Sample Date	Result	Units
CLF1B-5	Total Dissolved Solids (TDS)	2022-01-25	1132	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2021-06-23	1176	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2021-01-27	1024	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2020-06-23	1076	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2020-02-25	935	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2019-07-09	1155	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2019-05-21	1024	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2019-02-13	921.2	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2018-06-27	936.2	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2018-02-08	1076	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2017-10-11	776.7	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2017-09-26	812	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2017-07-25	840	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2017-04-18	756	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2017-01-24	758	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2016-10-14	763.3	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2016-07-19	848	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2016-04-25	755	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2016-01-27	662.5	mg/L
CLF1B-5	Total Dissolved Solids (TDS)	2015-10-22	528	mg/L
CLF1B-1	pH, Field	2025-01-27	6.58	pH units
CLF1B-1	pH, Field	2024-06-04	6.27	pH units
CLF1B-1	pH, Field	2024-01-22	6.55	pH units
CLF1B-1	pH, Field	2023-06-12	6.5	pH units
CLF1B-1	pH, Field	2023-01-26	6.62	pH units
CLF1B-1	pH, Field	2022-10-31	6.55	pH units
CLF1B-1	pH, Field	2022-06-27	6.78	pH units
CLF1B-1	pH, Field	2022-01-24	6.74	pH units
CLF1B-1	pH, Field	2021-06-22	6.66	pH units
CLF1B-1	pH, Field	2021-01-26	6.84	pH units
CLF1B-1	pH, Field	2020-06-22	6.76	pH units
CLF1B-1	pH, Field	2020-02-24	6.47	pH units
CLF1B-1	pH, Field	2019-07-08	6.47	pH units
CLF1B-1	pH, Field	2019-02-12	6.82	pH units
CLF1B-1	pH, Field	2018-06-27	6.58	pH units
CLF1B-1	pH, Field	2018-02-19	6.61	pH units
CLF1B-1	pH, Field	2017-10-10	6.32	pH units
CLF1B-1	pH, Field	2017-09-25	6.67	pH units
CLF1B-1	pH, Field	2017-07-26	6.63	pH units
CLF1B-1	pH, Field	2017-04-17	6.58	pH units
CLF1B-1	pH, Field	2017-01-30	6.68	pH units
CLF1B-1	pH, Field	2016-10-13	6.6	pH units
CLF1B-1	pH, Field	2016-07-18	6.53	pH units
CLF1B-1	pH, Field	2016-04-19	6.67	pH units
CLF1B-1	pH, Field	2016-02-01	6.55	pH units
CLF1B-1	pH, Field	2015-10-21	6.44	pH units
CLF1B-2	pH, Field	2025-01-27	6.99	pH units
CLF1B-2	pH, Field	2024-06-04	6.5	pH units
CLF1B-2	pH, Field	2024-01-22	6.78	pH units
CLF1B-2	pH, Field	2023-06-12	6.83	pH units
CLF1B-2	pH, Field	2023-01-25	6.77	pH units
CLF1B-2	pH, Field	2022-10-31	6.81	pH units
CLF1B-2	pH, Field	2022-06-27	6.85	pH units
CLF1B-2	pH, Field	2022-01-24	6.97	pH units
CLF1B-2	pH, Field	2021-06-22	6.83	pH units
CLF1B-2	pH, Field	2021-01-26	6.97	pH units
CLF1B-2	pH, Field	2020-06-22	7.01	pH units
CLF1B-2	pH, Field	2020-02-24	6.67	pH units
CLF1B-2	pH, Field	2019-07-08	6.61	pH units
CLF1B-2	pH, Field	2019-02-12	7.07	pH units
CLF1B-2	pH, Field	2018-06-27	6.88	pH units
CLF1B-2	pH, Field	2018-02-19	6.79	pH units
CLF1B-2	pH, Field	2017-10-11	7.08	pH units

Location	Constituent	Sample Date	Result	Units
CLF1B-2	pH, Field	2017-09-25	6.97	pH units
CLF1B-2	pH, Field	2017-07-26	6.89	pH units
CLF1B-2	pH, Field	2017-04-17	6.91	pH units
CLF1B-2	pH, Field	2017-01-30	6.85	pH units
CLF1B-2	pH, Field	2016-10-13	6.88	pH units
CLF1B-2	pH, Field	2016-07-19	6.93	pH units
CLF1B-2	pH, Field	2016-04-19	6.92	pH units
CLF1B-2	pH, Field	2016-02-01	6.79	pH units
CLF1B-2	pH, Field	2015-10-21	7.09	pH units
CLF1B-3	pH, Field	2025-01-27	6.92	pH units
CLF1B-3	pH, Field	2024-06-06	6.69	pH units
CLF1B-3	pH, Field	2024-01-22	6.61	pH units
CLF1B-3	pH, Field	2023-06-12	6.67	pH units
CLF1B-3	pH, Field	2023-01-25	6.61	pH units
CLF1B-3	pH, Field	2022-10-31	6.68	pH units
CLF1B-3	pH, Field	2022-06-27	6.73	pH units
CLF1B-3	pH, Field	2022-01-24	6.62	pH units
CLF1B-3	pH, Field	2021-06-22	6.61	pH units
CLF1B-3	pH, Field	2021-01-26	6.76	pH units
CLF1B-3	pH, Field	2020-06-22	6.79	pH units
CLF1B-3	pH, Field	2020-02-24	6.43	pH units
CLF1B-3	pH, Field	2019-07-08	6.53	pH units
CLF1B-3	pH, Field	2019-02-12	6.82	pH units
CLF1B-3	pH, Field	2018-06-27	6.67	pH units
CLF1B-3	pH, Field	2018-02-19	6.73	pH units
CLF1B-3	pH, Field	2017-10-11	6.66	pH units
CLF1B-3	pH, Field	2017-09-25	6.74	pH units
CLF1B-3	pH, Field	2017-07-26	6.57	pH units
CLF1B-3	pH, Field	2017-04-17	6.76	pH units
CLF1B-3	pH, Field	2017-01-30	6.81	pH units
CLF1B-3	pH, Field	2016-10-13	6.6	pH units
CLF1B-3	pH, Field	2016-07-19	6.58	pH units
CLF1B-3	pH, Field	2016-04-19	6.82	pH units
CLF1B-3	pH, Field	2016-02-01	6.71	pH units
CLF1B-3	pH, Field	2015-10-22	6.94	pH units
CLF1B-4	pH, Field	2025-01-27	7.14	pH units
CLF1B-4	pH, Field	2024-06-06	6.9	pH units
CLF1B-4	pH, Field	2024-01-22	7.04	pH units
CLF1B-4	pH, Field	2023-06-12	6.99	pH units
CLF1B-4	pH, Field	2023-01-24	7.02	pH units
CLF1B-4	pH, Field	2022-10-31	6.96	pH units
CLF1B-4	pH, Field	2022-06-27	6.93	pH units
CLF1B-4	pH, Field	2022-01-24	7.05	pH units
CLF1B-4	pH, Field	2021-06-22	7.03	pH units
CLF1B-4	pH, Field	2021-01-27	7.06	pH units
CLF1B-4	pH, Field	2020-06-23	6.99	pH units
CLF1B-4	pH, Field	2020-02-24	6.93	pH units
CLF1B-4	pH, Field	2019-07-08	6.93	pH units
CLF1B-4	pH, Field	2019-02-12	7.38	pH units
CLF1B-4	pH, Field	2018-06-28	7.01	pH units
CLF1B-4	pH, Field	2018-02-08	7.23	pH units
CLF1B-4	pH, Field	2017-10-11	7.2	pH units
CLF1B-4	pH, Field	2017-09-26	7.24	pH units
CLF1B-4	pH, Field	2017-07-26	7.02	pH units
CLF1B-4	pH, Field	2017-04-17	7.23	pH units
CLF1B-4	pH, Field	2017-01-30	7.22	pH units
CLF1B-4	pH, Field	2016-10-13	6.97	pH units
CLF1B-4	pH, Field	2016-07-19	7.16	pH units
CLF1B-4	pH, Field	2016-04-19	7.18	pH units
CLF1B-4	pH, Field	2016-01-27	7.37	pH units
CLF1B-4	pH, Field	2015-10-22	7.17	pH units
CLF1B-5	pH, Field	2025-01-27	6.89	pH units
CLF1B-5	pH, Field	2024-06-05	6.64	pH units

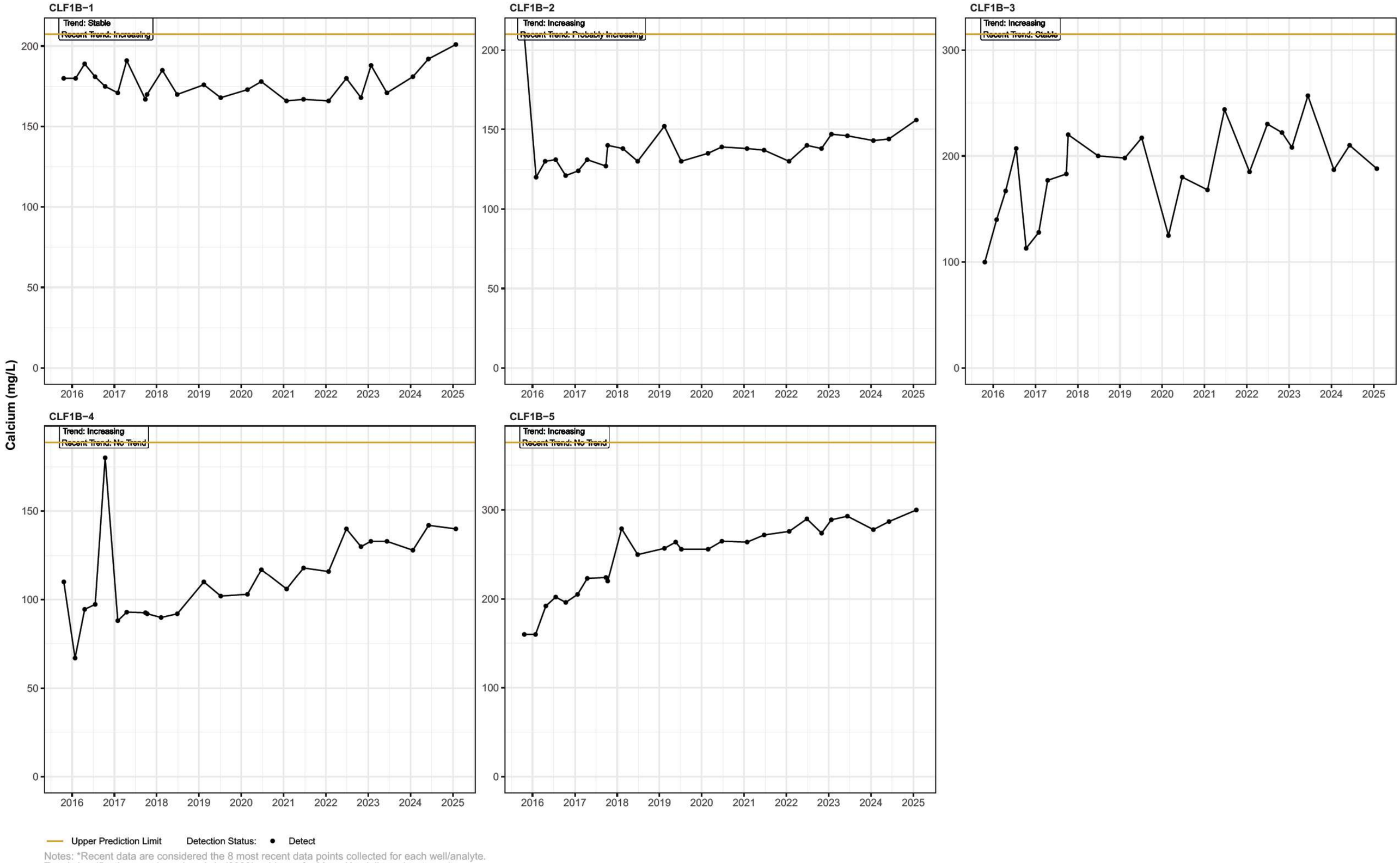
Location	Constituent	Sample Date	Result	Units
CLF1B-5	pH, Field	2024-01-22	6.64	pH units
CLF1B-5	pH, Field	2023-06-12	6.66	pH units
CLF1B-5	pH, Field	2023-01-24	6.58	pH units
CLF1B-5	pH, Field	2022-11-01	6.47	pH units
CLF1B-5	pH, Field	2022-06-27	6.66	pH units
CLF1B-5	pH, Field	2022-01-25	6.64	pH units
CLF1B-5	pH, Field	2021-06-23	5.57	pH units
CLF1B-5	pH, Field	2021-01-27	6.58	pH units
CLF1B-5	pH, Field	2020-06-23	6.61	pH units
CLF1B-5	pH, Field	2020-02-25	6.49	pH units
CLF1B-5	pH, Field	2019-07-09	6.5	pH units
CLF1B-5	pH, Field	2019-05-21	6.64	pH units
CLF1B-5	pH, Field	2019-02-13	6.71	pH units
CLF1B-5	pH, Field	2018-06-27	6.71	pH units
CLF1B-5	pH, Field	2018-02-08	6.71	pH units
CLF1B-5	pH, Field	2017-10-11	6.71	pH units
CLF1B-5	pH, Field	2017-09-26	6.76	pH units
CLF1B-5	pH, Field	2017-07-25	6.67	pH units
CLF1B-5	pH, Field	2017-04-18	6.6	pH units
CLF1B-5	pH, Field	2017-01-24	6.75	pH units
CLF1B-5	pH, Field	2016-10-14	6.51	pH units
CLF1B-5	pH, Field	2016-07-19	6.59	pH units
CLF1B-5	pH, Field	2016-04-25	6.68	pH units
CLF1B-5	pH, Field	2016-01-27	6.76	pH units
CLF1B-5	pH, Field	2015-10-22	6.83	pH units

Trend Plots for Boron



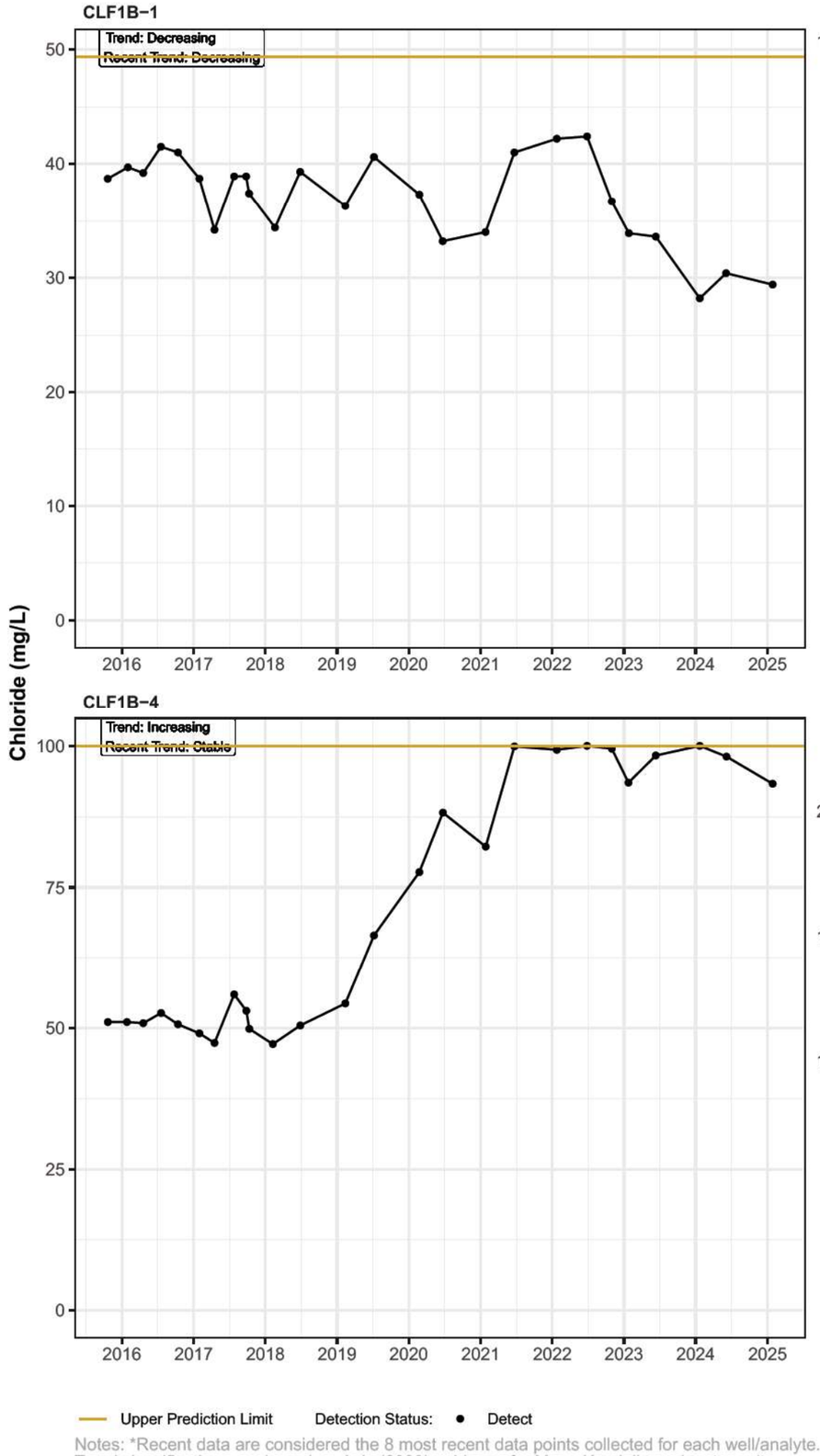
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

Trend Plots for Calcium



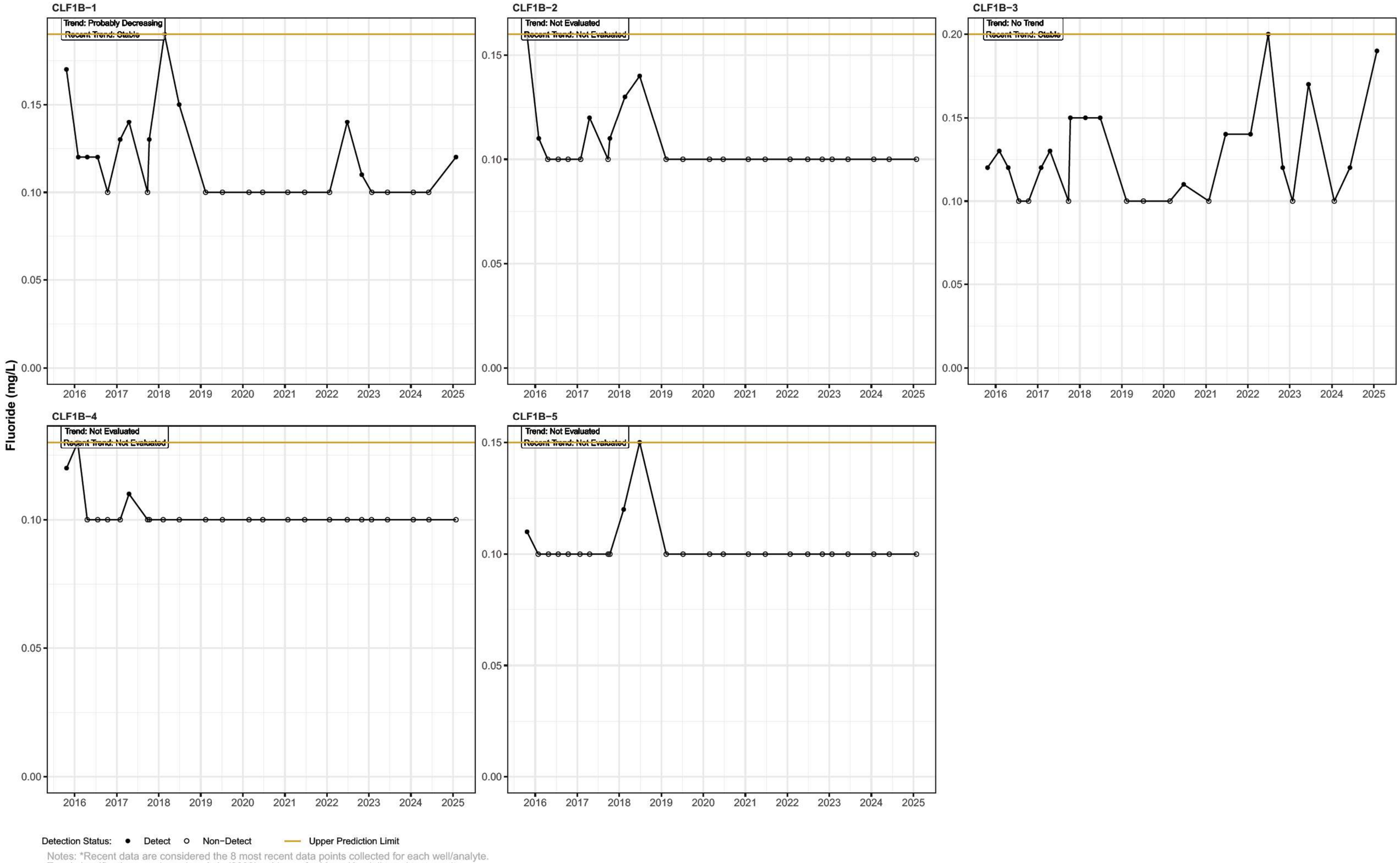
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

Trend Plots for Chloride



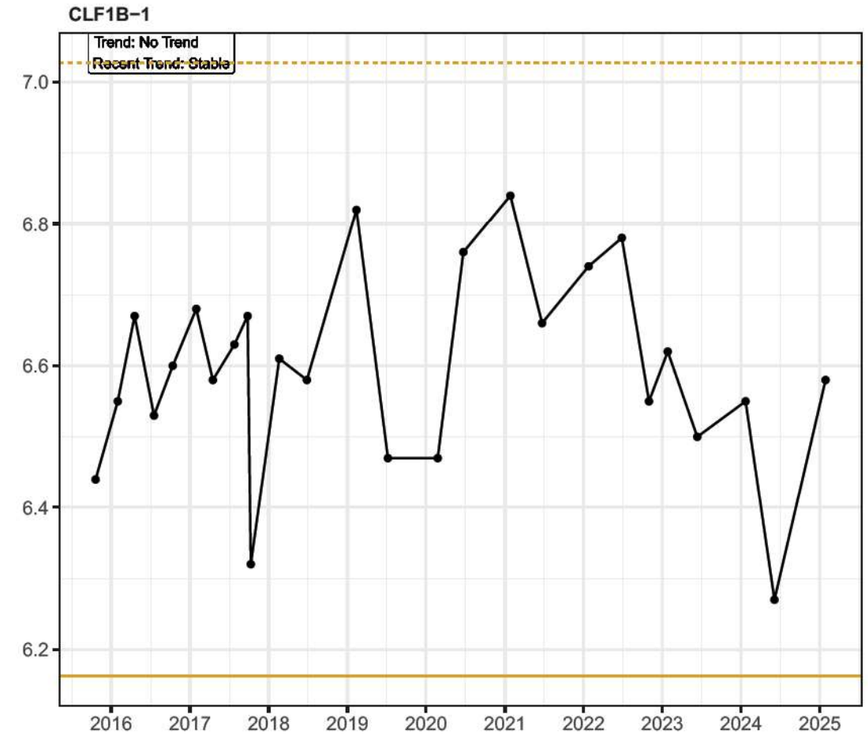
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

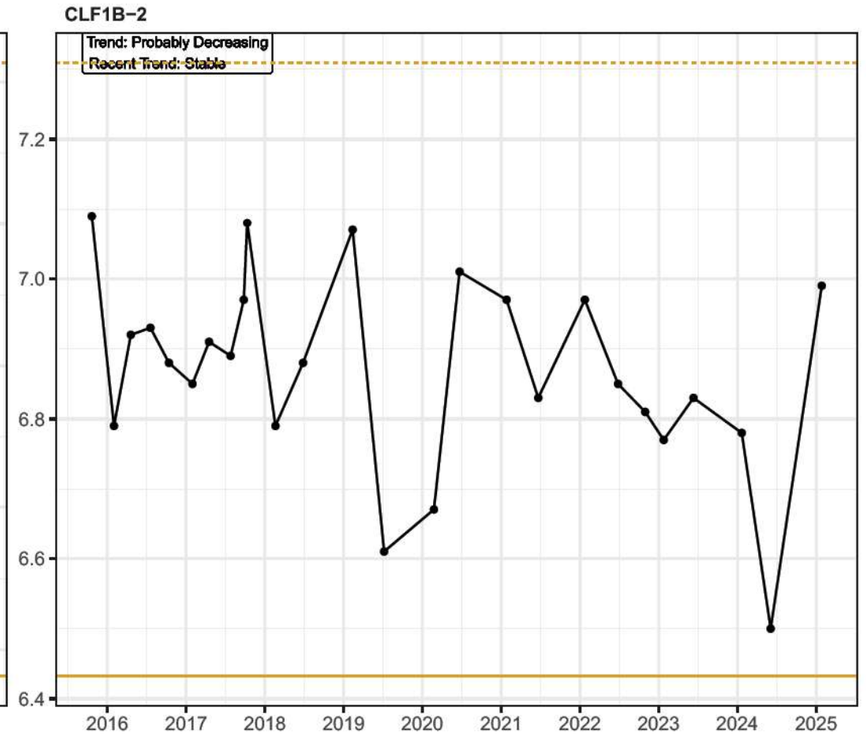
Trend Plots for Fluoride

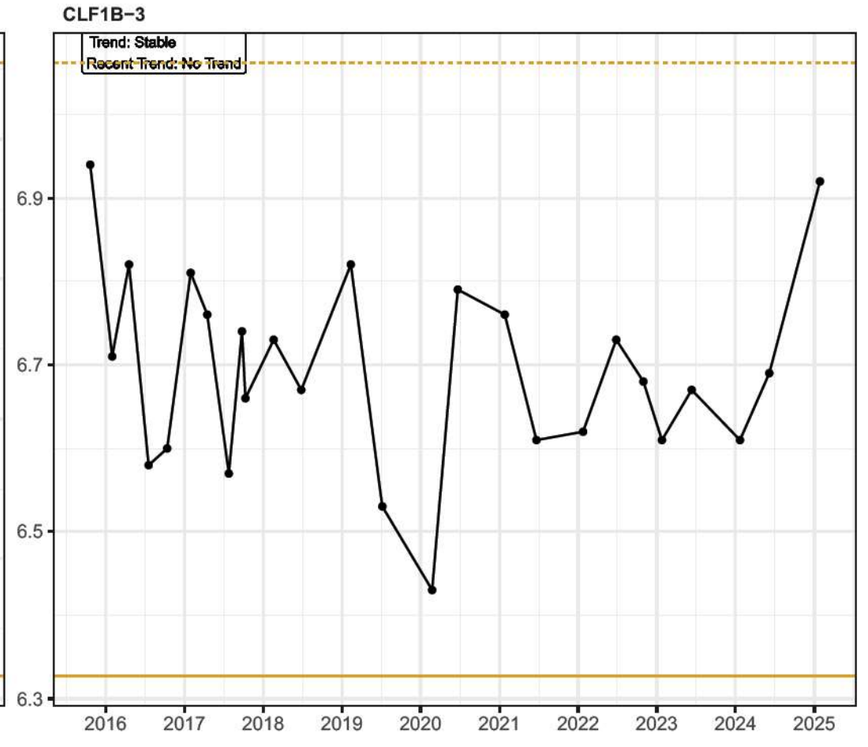


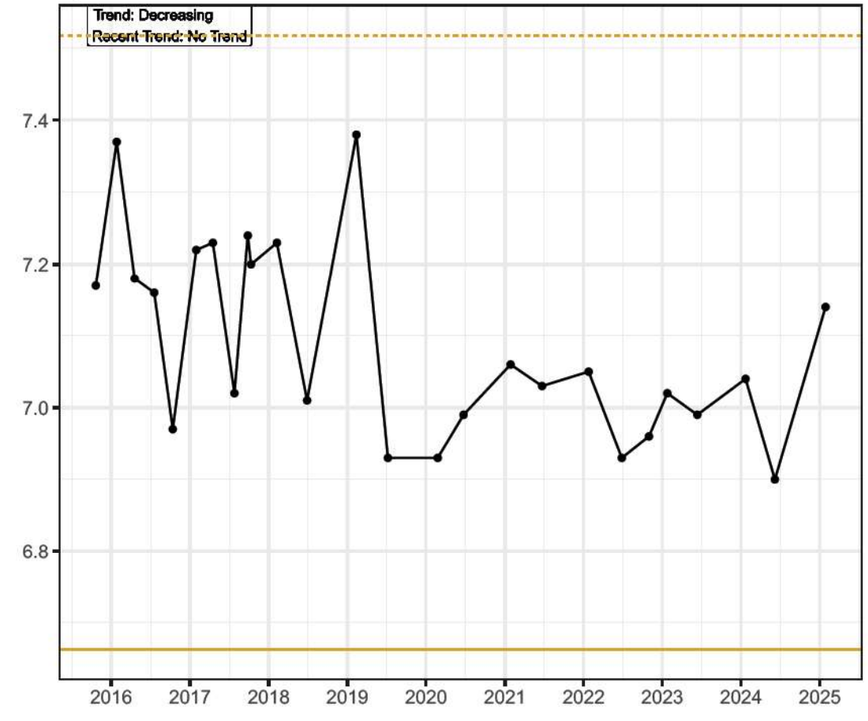
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

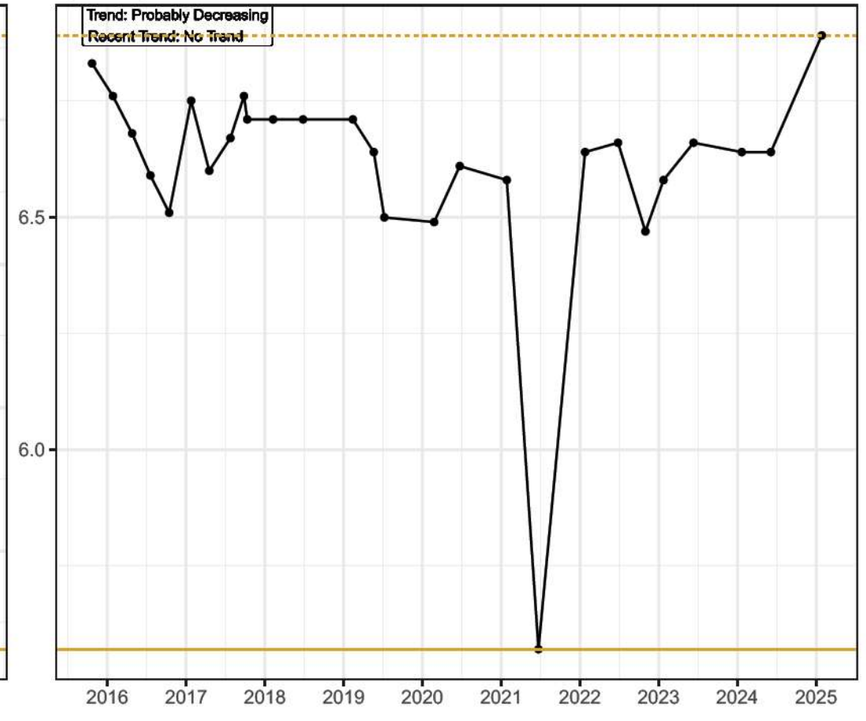
Trend Plots for pH, Field







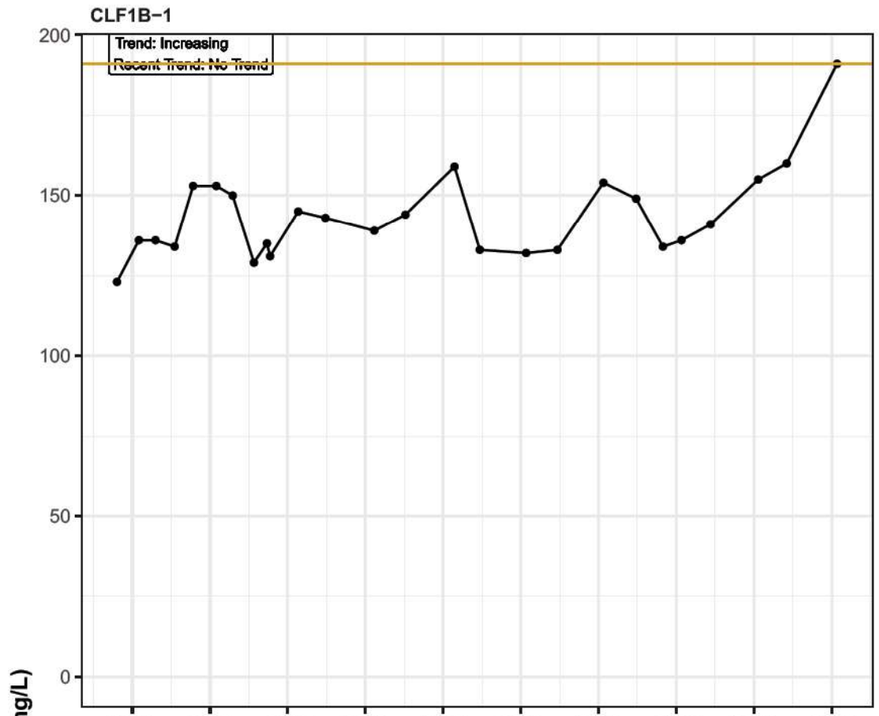


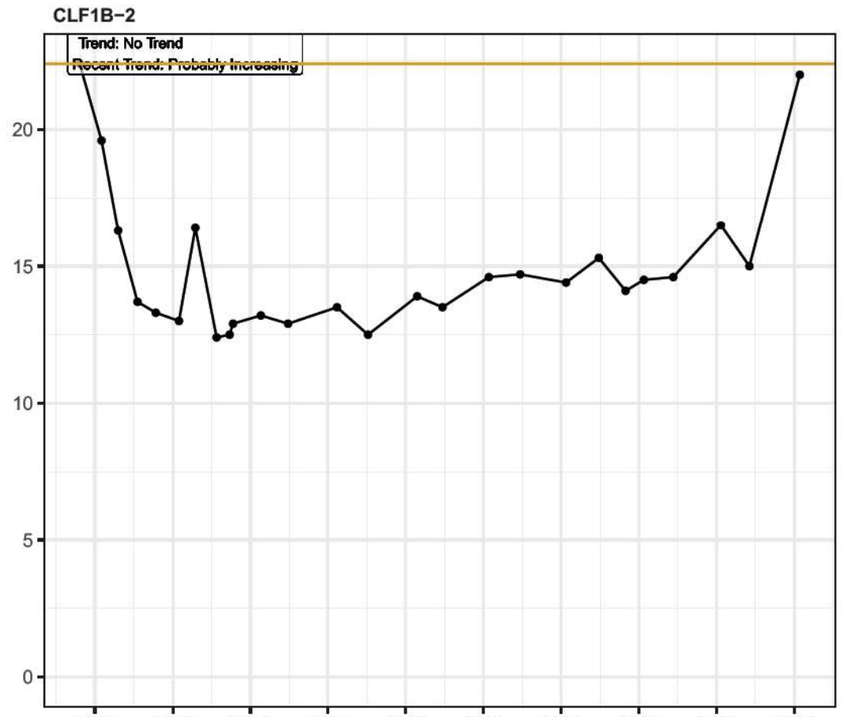


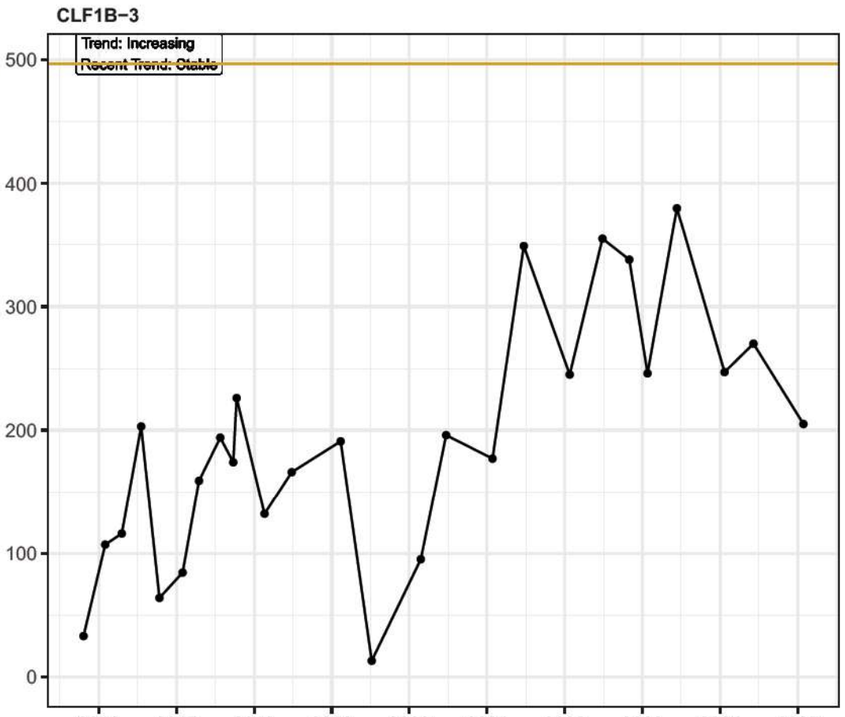
linetype — Lower Prediction Limit - - - Upper Prediction Limit Detection Status: ● Detect

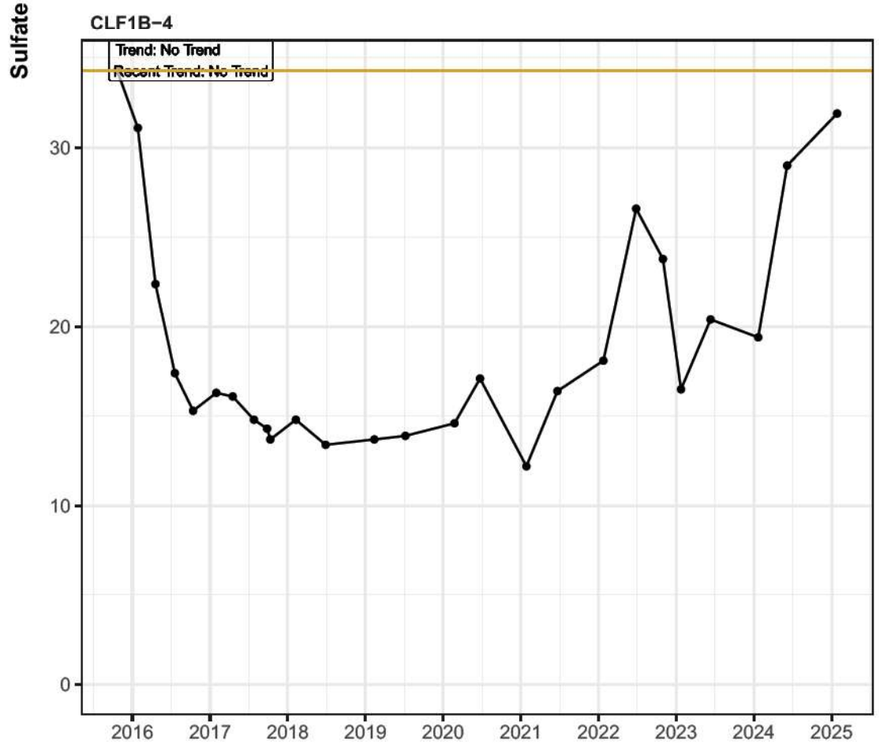
Notes: *Recent data are considered the 12 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

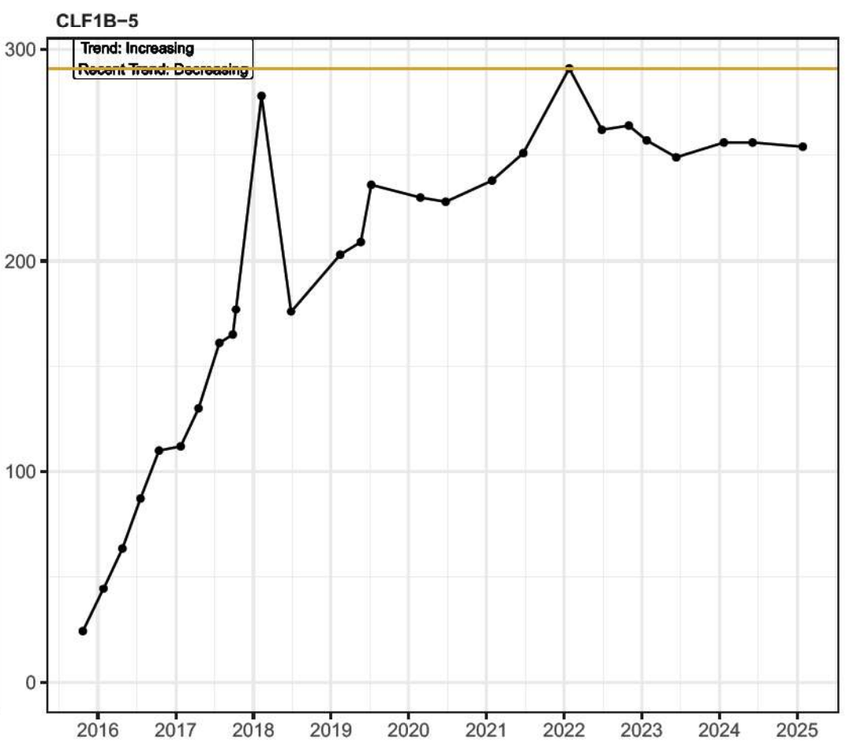
Trend Plots for Sulfate







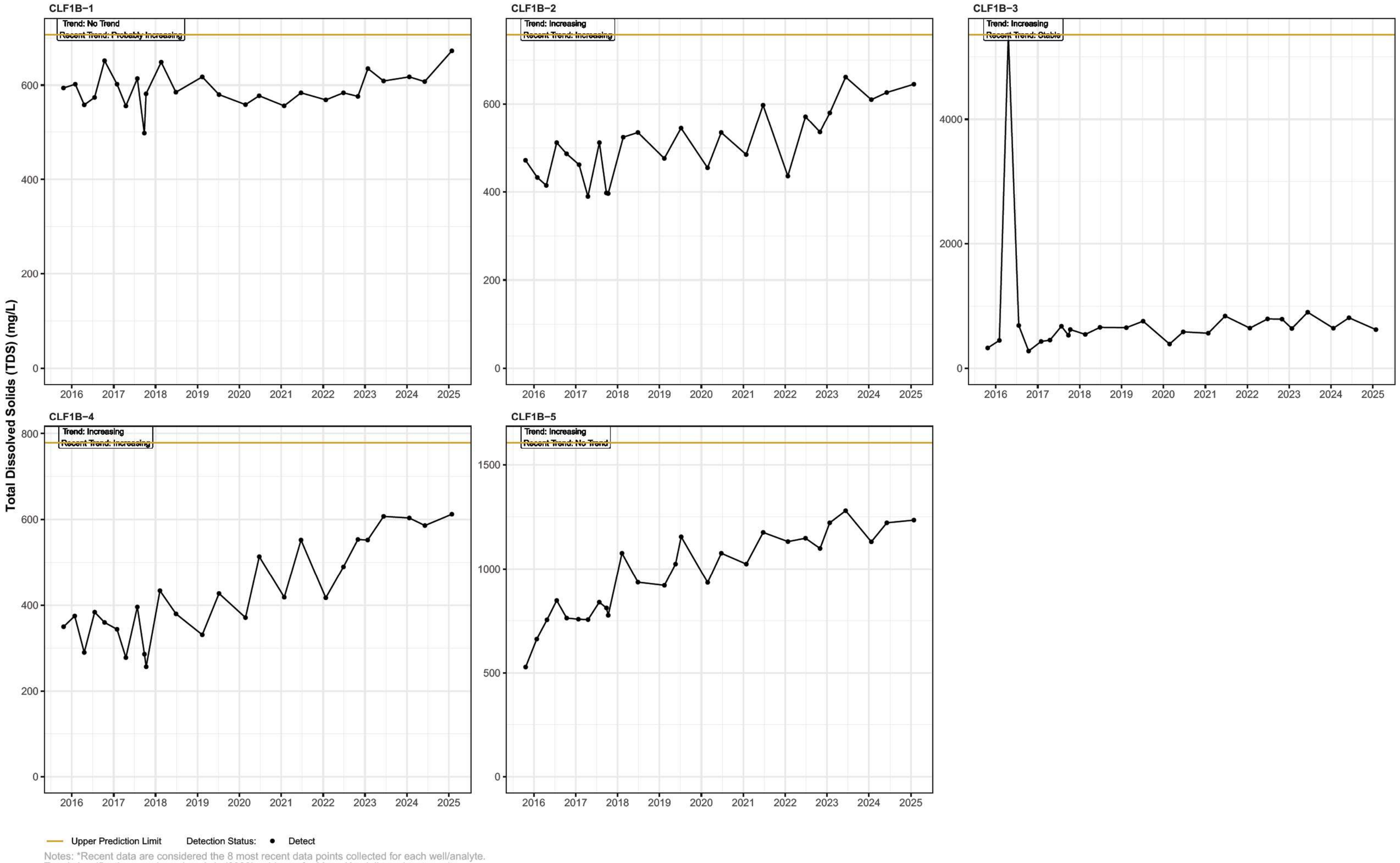




Upper Prediction Limit Detection Status: ● Detect

Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

Trend Plots for Total Dissolved Solids (TDS)



Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

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TECHNICAL MEMORANDUM

November 14, 2025
File No. 132892-102-001-02

SUBJECT: Statistical Evaluation of the June 2025 Groundwater Detection Monitoring Data
Cross Generating Station
Class 3 Landfill

Pursuant to Title 40 Code of Federal Regulations (40 CFR) §257.93 and §257.94 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained from the June 2025 detection monitoring event for the Cross Generating Station (CGS) Class 3 Landfill. Data for this groundwater sampling event was validated on August 18, 2025, by Santee Cooper and provided to Haley & Aldrich, Inc. (Haley & Aldrich). A verification sampling event was conducted on August 25, 2025, as described below, with validated data provided to Haley & Aldrich on September 5, 2025.

BACKGROUND

The CGS Class 3 Landfill began receiving waste in December 2015. After completion of baseline sampling, the initial statistical analysis for the CGS Class 3 Landfill identified statistically significant increases (SSIs) above site-specific background levels for Appendix III constituents in downgradient monitoring wells. Subsequently, alternate source demonstrations (ASDs) completed in April 2018 and March 2023 concluded the adjacent closed Class 2 Landfill and former temporary gypsum marketing areas are the sources for the Appendix III SSIs (boron, calcium, chloride, pH, sulfate, and total dissolved solids) as opposed to the Class 3 Landfill. As a result, the Class 3 Landfill remained in detection monitoring. Since approval of the 2018 ASD, which updated the previously certified statistical method for this unit, intrawell evaluations of Appendix III constituents have been performed using prediction limits (PLs).

This memorandum evaluates recent groundwater quality results for Appendix III constituents collected in June 2025, as well as two verification samples collected for sulfate at monitoring wells CLF1B-1 and CLF1B-2 on August 25, 2025 (discussed in more detail in the Results section). For each downgradient monitoring well, the current result was compared to its intrawell PL, based on the certified method at this unit, an SSI is concluded when a result exceeds the PL.

STATISTICAL METHODS

The Rule provides four specific options to statistically evaluate whether water quality downgradient of the coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)) represents an SSI of Appendix III parameters compared to the background groundwater quality of the CCR unit. To statistically evaluate the analytical results, the background PL, which is a type of prediction interval method, was certified to evaluate the Appendix III data. The prediction interval method is one of the options outlined in the Rule. A prediction interval procedure establishes a concentration limit for each constituent from the

distribution of the background data, with a specified confidence level (e.g., 95 percent). The upper endpoint of a concentration limit is termed the upper prediction limit (UPL), and the lower endpoint of a concentration limit is called the lower prediction limit (LPL). Only pH was evaluated against the LPL. Depending on the background data distribution, parametric or non-parametric PLs procedures are used to evaluate groundwater monitoring data using this method. Parametric PLs use normally distributed data or normalized data via transformation of the sample background data.

If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the PL. If all the background data are non-detect, a maximum reporting limit (RL) may serve as an approximate UPL. Depending on the available sample size, PLs generated from non-parametric or maximum RLs may not achieve the same target statistical confidence limits as the parametric PLs.

Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009* (the Unified Guidance), background concentrations were based on the statistical evaluation of analytical results collected through June 2025 and updated in the Statistical Output produced with R programming software (Attachment A). The background dataset was updated in the summary table for the June 2025 sampling event and will again be updated after four additional data points are collected (first semiannual event of 2027), in accordance with the Unified Guidance.

TREND ANALYSIS

Mann-Kendall trend analyses were performed on both the overall dataset, and on the eight most recent samples. Trends were only evaluated for constituent/well datasets of sufficient sample size. Recent trend analysis results are included in Table 1, and both overall and recent trends are included in Attachment A, Table A-4. Trend analysis will continue to be used to monitor and evaluate concentrations in the context of overall site conditions.

Of the 32 well/constituent trends analyzed at downgradient compliance wells, 34 percent are identified as stable or decreasing; 16 percent are increasing trends, and 50 percent are variable with no statistically significant trend. Recent concentrations of boron, calcium, chloride, sulfate and total dissolved solids indicate increasing trends at one or more downgradient compliance wells. It is important to note that increasing trends are not part of the comparison criteria for triggering an SSI.

RESULTS OF APPENDIX III DOWNGRADIENT STATISTICAL COMPARISONS

Downgradient sample results for Appendix III constituents were compared to well-specific intrawell PLs per the certified statistical method (Table 1).

Given the relative percent difference (RPD) of the UPLs and the typical analytical imprecision (e.g., ≤20 percent RPD acceptance for groundwater duplicates), verification samples for sulfate were collected on August 25, 2025, and confirmed on September 5, 2025. Verification results were used for the statistical evaluation and SSI determination; initial results are retained in the record and are summarized below for transparency:

- CLF1B-1
  - Initial sample (June 9, 2025): 193 milligrams per liter (mg/L) vs UPL of 191 mg/L (RPD = 1.0 percent).
  - Field duplicate sample (June 9, 2025): 190 mg/L vs UPL of 190 mg/L (less than the UPL).
  - Verification sample (August 25, 2025): 204 mg/L (greater than the UPL).
  - Conclusion: SSI identified for sulfate at CLF1B-1.
  - Additional context:
    - Sulfate concentrations are below unit-wide maximums, with sulfate measured at up to 380 mg/L at downgradient well CLF1B-3 and up to 291 mg/L at downgradient well CLF1B-5.
    - Sulfate has an SSI trend in the overall and recent dataset.
- CLF1B-2
  - Initial sample (June 9, 2025): 22.7 mg/L vs UPL of 22.4 mg/L (RPD = 1.3 percent).
  - Verification sample (August 25, 2025): 21.8 mg/L (less than the UPL).
  - Conclusion: No SSI identified for sulfate at CLF1B-2.
  - Additional context:
    - Upgradient background well, CBW-1, exhibits significantly higher maximum sulfate concentrations (up to 115 mg/L).
    - Sulfate does not have a statistically significant trend in the overall or recent dataset.

Findings of the 2018 and 2023 ASD concluded that SSIs identified were the result of physical and pre-existing alternative sources, specifically the CGS Class 2 Landfill, which began receiving waste approximately 40 years ago, and possible residual impacts from temporary gypsum marketing storage areas that no longer exist. As noted in the 2023 ASD, "Groundwater flow velocity for this portion of the CGS site is approximately 11 to 22 feet per year based on flow velocities calculated from March 2022 water table elevations." Based on this calculated groundwater flow velocity and levels of constituent concentrations, elevated concentrations of multiple Appendix III constituents could continue to flow through the Class 3 Landfill monitoring wells until 2043.

Statistical results and trends in concentrations will continue to be evaluated during subsequent sampling events. Based on these results an ASD will be completed for sulfate at the Class 3 Landfill.

Enclosures:

Table 1 – June 2025 Detection Monitoring Data (CGS Class 3 Landfill)
Attachment A – Statistical Output, June 2025

TABLE

TABLE 1
JUNE 2025 DETECTION MONITORING DATA (CGS CLASS 3 LANDFILL)
CROSS GENERATING STATION
CLASS 3 LANDFILL

Location	Frequency of Detection	Percent of Detected Results	Range of Reporting Limits	Mean	50th Percentile (Median)	95th Percentile	Maximum Detected Value	Coefficient of Variance	CCR MCL/RSL	Number of MCL/RSL Exceedances	Mann-Kendall Trend [a]	Intra-well Analysis				
												Assumed Data Distribution	Sample Date	June 2025 Concentration	Intrawell Prediction Limits [b]	Statistically Significant Increases (SSIs)
CCR Appendix III: Boron, Total (mg/L)																
CBW-1	24/26	92%	0.015 - 0.04	0.0527	0.0202	0.038	0.836	303%	NA	0	No Trend	Not normal	6/2/2025	0.0212	NA	NA
PM-1	16/26	62%	0.015 - 0.02	0.0180	0.0150	0.038025	0.049	49%	NA	0	No Trend	Not normal	6/3/2025	0.0134	NA	NA
CLF1B-1	9/26	35%	0.015 - 0.015	0.0146	0.0150	0.0159	0.0161	9%	NA	0	Increasing	Not normal	6/9/2025	0.0152	0.0161	No
CLF1B-2	22/26	85%	0.01 - 0.015	0.0185	0.0169	0.0271	0.0398	31%	NA	0	Increasing	Normal	6/9/2025	0.0273	0.0398	No
CLF1B-3	26/26	100%	NA	0.0605	0.0455	0.135	0.181	68%	NA	0	Increasing	Not normal	6/9/2025	0.0989	0.1810	No
CLF1B-4	26/26	100%	NA	0.0216	0.0202	0.0294	0.0298	20%	NA	0	No Trend	Normal	6/9/2025	0.0309	0.0355	No
CLF1B-5	22/26	85%	0.015 - 0.015	0.0192	0.0180	0.0273	0.0295	24%	NA	0	Increasing	Normal	6/9/2025	0.0302	0.0338	No
CCR Appendix III: Calcium, Total (mg/L)																
CBW-1	26/26	100%	NA	27	27	33	42	16%	NA	0	No Trend	Not normal	6/2/2025	21.7	NA	NA
PM-1	27/27	100%	NA	20	16	34	119	102%	NA	0	Probably Decreasing	Not normal	6/3/2025	20.3	NA	NA
CLF1B-1	25/25	100%	NA	177	176	192	201	5%	NA	0	No Trend	Normal	6/9/2025	201	207.4	No
CLF1B-2	25/25	100%	NA	139	138	155	210	12%	NA	0	Increasing	Not normal	6/9/2025	156	210.0	No
CLF1B-3	24/24	100%	NA	186	188	242	257	22%	NA	0	Increasing	Normal	6/9/2025	209	314.9	No
CLF1B-4	25/25	100%	NA	113	110	142	180	21%	NA	0	Increasing	Normal	6/9/2025	153	188.7	No
CLF1B-5	26/26	100%	NA	247	261	292	300	17%	NA	0	Increasing	Normal	6/9/2025	297	375.8	No
CCR Appendix III: Chloride, Total (mg/L)																
CBW-1	27/27	100%	NA	3.1	3.0	3.8	3.79	13%	NA	0	Increasing	Normal	6/2/2025	3.65	NA	NA
PM-1	27/27	100%	NA	13	13	13	14	4%	NA	0	Probably Decreasing	Normal	6/3/2025	11.2	NA	NA
CLF1B-1	26/26	100%	NA	37	38	42	42	11%	NA	0	Decreasing	Normal	6/9/2025	32.1	49.4	No
CLF1B-2	26/26	100%	NA	78.2	79.1	93.2	93.9	16%	NA	0	Increasing	Normal	6/9/2025	97.6	116.7	No
CLF1B-3	26/26	100%	NA	26.3	23.3	40.3	81.2	47%	NA	0	Stable	Not normal	6/9/2025	37.3	81.2	No
CLF1B-4	26/26	100%	NA	71.6	61.3	100	100	31%	NA	0	Increasing	Not normal	6/9/2025	95.6	100.0	No
CLF1B-5	27/27	100%	NA	135	134	175	180	22%	NA	0	Increasing	Normal	6/9/2025	179	226.0	No
CCR Appendix III: Fluoride (mg/L)																
CBW-1	24/25	96%	0.1 - 0.1	0.20	0.20	0.29	0.3	26%	4	0	Decreasing	Normal	6/2/2025	0.11	NA	NA
PM-1	0/25	NA	0.1 - 0.1	0	0	0	NA	0%	4	NA	Not Evaluated - No detected result	NA	6/3/2025	<0.1	NA	NA
CLF1B-1	12/25	48%	0.1 - 0.1	0	0	0	0	21%	4	0	Decreasing	Not normal	6/9/2025	<0.1	0.2	No
CLF1B-2	6/25	24%	0.1 - 0.1	0.11	0.10	0.14	0.16	14%	4	0	Not Evaluated - Majority of data (>75%) non-detect.	Not normal	6/9/2025	<0.1	0.16	No
CLF1B-3	16/25	64%	0.1 - 0.1	0.13	0.12	0.19	0.2	23%	4	0	No Trend	Not normal	6/9/2025	0.11	0.20	No
CLF1B-4	3/25	12%	0.1 - 0.1	0.10	0.10	0.12	0.13	7%	4	0	Not Evaluated - Majority of data (>75%) non-detect.	Not normal	6/9/2025	<0.1	0.13	No
CLF1B-5	3/25	12%	0.1 - 0.1	0.10	0.10	0.12	0.15	10%	4	0	Not Evaluated - Majority of data (>75%) non-detect.	Not normal	6/9/2025	<0.1	0.15	No
CCR Appendix III: pH, Field (SU) [c]																
CBW-1	27/27	100%	NA	4.34	4.32	4.53	4.68	3%	NA	0	Probably Increasing	Normal	6/2/2025	4.69	NA	NA
PM-1	32/32	100%	NA	5	5	5	6	4%	NA	0	No Trend	Normal	6/3/2025	5.21	NA	NA
CLF1B-1	26/26	100%	NA	7	7	7	7	2%	NA	0	Stable	Normal	6/9/2025	6.57	7.03	No
CLF1B-2	26/26	100%	NA	6.87	6.88	7.08	7.09	2%	NA	0	Probably Decreasing	Normal	6/9/2025	6.81	7.31	No
CLF1B-3	26/26	100%	NA	6.69	6.69	6.90	6.94	2%	NA	0	Stable	Normal	6/9/2025	6.72	7.06	No
CLF1B-4	26/26	100%	NA	7.09	7.05	7.34	7.38	2%	NA	0	Decreasing	Normal	6/9/2025	6.88	7.52	No
CLF1B-5	27/27	100%	NA	6.61	6.64	6.81	6.89	3%	NA	0	Stable	Not normal	6/9/2025	6.69	6.89	No

TABLE 1
JUNE 2025 DETECTION MONITORING DATA (CGS CLASS 3 LANDFILL)
CROSS GENERATING STATION
CLASS 3 LANDFILL

Location	Frequency of Detection	Percent of Detected Results	Range of Reporting Limits	Mean	50th Percentile (Median)	95th Percentile	Maximum Detected Value	Coefficient of Variance	CCR MCL/RSL	Number of MCL/RSL Exceedances	Mann-Kendall Trend [a]	Intra-well Analysis				
												Assumed Data Distribution	Sample Date	June 2025 Concentration	Intrawell Prediction Limits [b]	Statistically Significant Increases (SSIs)
CCR Appendix III: Sulfate (mg/L)																
CBW-1	27/27	100%	NA	81	79.9	95	115	13%	NA	0	No Trend	Not normal	6/2/2025	83.9	NA	NA
PM-1	27/27	100%	NA	12	10	24	27	47%	NA	0	Decreasing	Normal	6/3/2025	16.8	NA	NA
CLF1B-1	26/26	100%	NA	143	140	160	191	10%	NA	0	Increasing	Not normal	8/25/2025 [d]	204	191.0	Yes
CLF1B-2	26/26	100%	NA	14.9	14.25	21.4	22.4	18%	NA	0	Probably Increasing	Not normal	8/25/2025 [d]	21.8	22.4	No
CLF1B-3	26/26	100%	NA	191	193	354	380	51%	NA	0	Increasing	Normal	6/9/2025	231	496.9	No
CLF1B-4	26/26	100%	NA	19.1	16.5	31.7	34.3	33%	NA	0	No Trend	Not normal	6/9/2025	32.6	34.3	No
CLF1B-5	27/27	100%	NA	193	228	273.8	291	40%	NA	0	Increasing	Not normal	6/9/2025	268	291.0	No
CCR Appendix III: Total Dissolved Solids (mg/L)																
CBW-1	26/27	96%	40 - 40	131.0	135.0	180.5	188.8	27%	NA	0	Probably Increasing	Normal	6/2/2025	167.5	NA	NA
PM-1	30/31	97%	40 - 40	132.3	130.0	200.0	206	29%	NA	0	Stable	Normal	6/3/2025	175	NA	NA
CLF1B-1	26/26	100%	NA	592.7	584.4	650.9	672.5	6%	NA	0	No Trend	Normal	6/9/2025	657.5	706.6	No
CLF1B-2	26/26	100%	NA	511.4	512.0	640.3	661.2	15%	NA	0	Increasing	Normal	6/9/2025	627.5	757.2	No
CLF1B-3	26/26	100%	NA	792.6	640.0	883.5	5355	119%	NA	0	Increasing	Not normal	6/9/2025	690.0	5355	No
CLF1B-4	26/26	100%	NA	429.7	406.8	606.6	612.5	26%	NA	0	Increasing	Normal	6/9/2025	565	778.9	No
CLF1B-5	27/27	100%	NA	973.8	1024.0	1231	1280	21%	NA	0	Increasing	Normal	6/9/2025	1250	1606	No

NOTES:

[a] Mann-Kendall Trends calculated from the 8 most recent samples at a 95% confidence limits and trend classifications are determined based on guidance from the Monitoring and Remediation Optimization System (Aziz, 2003). Recent trend date ranges vary by well/constituent and are included in Attachment A, Table A-4. 'Probably increasing' and 'probably decreasing' trends indicate that while no statistically significant trend was identified at the indicated confidence level, data suggest emerging trends at a lower confidence level. Data sets that do not meet test requirements, such as having a detection rate of at least 25%, are labeled as 'Not Evaluated'.

[b] Intrawell Prediction Limits are calculated from data collected from individual downgradient wells. No statistical outlier data points were removed from background datasets.

[c] Upper Prediction Limit (UPL) / Lower Prediction Limit (LPL): SSIs are identified as sample results below the LPL or above the UPL.

[d] Verification samples were collected on 8/25/2025 for CLF1B-1 and CLF1B-2 due to the initial sample result concentrations, collected on 6/9/2025, measured within 1% relative percent difference of the UPL; verification results are used for SSI determination and in calculation of summary statistics. Initial sample results are presented in the text of this memorandum for transparency.

MCL/RSL: Maximum contaminant level/Regional screening level

mg/L: milligrams per liter, SU = standard pH units

NA: not applicable

ATTACHMENT A
Statistical Output, June 2025

Table A-1. Descriptive Statistics

Location	Constituent	Units	n	n, non-detects	percent of non-detects	max	min	mean	median	standard deviation	coefficient of variation (%)	reporting limit range	date range
CBW-1	Boron	mg/L	27	2	7	0.836	0.0139	0.0515	0.0203	0.16	304	0.015 - 0.04	2015-10-19 to 2025-06-03
CLF1B-1	Boron	mg/L	27	17	63	0.0161	0.0101	0.0146	0.015	0.0013	9.02	0.015 - 0.015	2015-10-21 to 2025-06-09
CLF1B-2	Boron	mg/L	27	4	15	0.0398	0.01	0.0189	0.017	0.0058	30.8	0.01 - 0.015	2015-10-21 to 2025-06-09
CLF1B-3	Boron	mg/L	27	0	0	0.181	0.0172	0.0619	0.047	0.041	66.1	NA	2015-10-22 to 2025-06-09
CLF1B-4	Boron	mg/L	27	0	0	0.0309	0.016	0.022	0.0204	0.0047	21.3	NA	2015-10-22 to 2025-06-09
CLF1B-5	Boron	mg/L	27	4	15	0.0302	0.015	0.0196	0.018	0.005	25.6	0.015 - 0.015	2015-10-22 to 2025-06-09
PM-1	Boron	mg/L	27	10	37	0.049	0.011	0.0178	0.015	0.0086	48.3	0.015 - 0.02	2015-10-19 to 2025-06-02
CBW-1	Calcium	mg/L	27	0	0	42.2	21.7	26.9	27	4.3	15.8	NA	2015-10-19 to 2025-06-03
CLF1B-1	Calcium	mg/L	26	0	0	201	166	178	177	10	5.85	NA	2015-10-21 to 2025-06-09
CLF1B-2	Calcium	mg/L	26	0	0	210	120	140	138	17	12.4	NA	2015-10-21 to 2025-06-09
CLF1B-3	Calcium	mg/L	25	0	0	257	100	187	188	40	21.6	NA	2015-10-22 to 2025-06-09
CLF1B-4	Calcium	mg/L	26	0	0	180	67	114	110	25	21.9	NA	2015-10-22 to 2025-06-09
CLF1B-5	Calcium	mg/L	27	0	0	300	160	249	264	41	16.6	NA	2015-10-22 to 2025-06-09
PM-1	Calcium	mg/L	28	0	0	119	6.2	20.2	16.15	20	100	NA	2015-10-19 to 2025-06-02
CBW-1	Chloride	mg/L	28	0	0	3.79	2.33	3.08	3	0.4	13	NA	2015-10-19 to 2025-06-03
CLF1B-1	Chloride	mg/L	27	0	0	42.4	28.2	36.8	37.4	4	10.8	NA	2015-10-21 to 2025-06-09
CLF1B-2	Chloride	mg/L	27	0	0	97.6	39.6	78.9	80.1	13	16	NA	2015-10-21 to 2025-06-09
CLF1B-3	Chloride	mg/L	27	0	0	81.2	15.6	26.7	23.5	12	45.9	NA	2015-10-22 to 2025-06-09
CLF1B-4	Chloride	mg/L	27	0	0	100	47.2	72.5	66.5	22	30.7	NA	2015-10-22 to 2025-06-09
CLF1B-5	Chloride	mg/L	28	0	0	180	69.5	137	136	30	21.8	NA	2015-10-22 to 2025-06-09
PM-1	Chloride	mg/L	28	0	0	13.5	11.2	12.5	12.63	0.6	4.8	NA	2015-10-19 to 2025-06-02
CBW-1	Fluoride	mg/L	26	1	4	0.3	0.1	0.2	0.195	0.055	27.3	0.1 - 0.1	2015-10-19 to 2025-06-03
CLF1B-1	Fluoride	mg/L	26	14	54	0.19	0.1	0.117	0.1	0.024	20.8	0.1 - 0.1	2015-10-21 to 2025-06-09
CLF1B-2	Fluoride	mg/L	26	20	77	0.16	0.1	0.107	0.1	0.015	14	0.1 - 0.1	2015-10-21 to 2025-06-09
CLF1B-3	Fluoride	mg/L	26	9	35	0.2	0.1	0.126	0.12	0.029	22.7	0.1 - 0.1	2015-10-22 to 2025-06-09
CLF1B-4	Fluoride	mg/L	26	23	88	0.13	0.1	0.102	0.1	0.0071	6.94	0.1 - 0.1	2015-10-22 to 2025-06-09
CLF1B-5	Fluoride	mg/L	26	23	88	0.15	0.1	0.103	0.1	0.01	10.2	0.1 - 0.1	2015-10-22 to 2025-06-09
PM-1	Fluoride	mg/L	26	26	100	0.1	0.1	0.1	0.1	0	0	0.1 - 0.1	2015-10-19 to 2025-06-02
CBW-1	Sulfate	mg/L	28	0	0	115	65.5	80.8	80.15	10	12.4	NA	2015-10-19 to 2025-06-03
CLF1B-1	Sulfate	mg/L	27	0	0	204	123	146	141	18	12.3	NA	2015-10-21 to 2025-08-25
CLF1B-2	Sulfate	mg/L	27	0	0	22.4	12.4	15.2	14.4	2.9	19.3	NA	2015-10-21 to 2025-08-25
CLF1B-3	Sulfate	mg/L	27	0	0	380	13	192	194	96	49.8	NA	2015-10-22 to 2025-06-09
CLF1B-4	Sulfate	mg/L	27	0	0	34.3	12.2	19.6	16.5	6.8	34.6	NA	2015-10-22 to 2025-06-09
CLF1B-5	Sulfate	mg/L	28	0	0	291	24.2	196	229	77	39.3	NA	2015-10-22 to 2025-06-09
PM-1	Sulfate	mg/L	28	0	0	26.5	6.59	12.3	9.845	5.6	45.6	NA	2015-10-19 to 2025-06-02
CBW-1	Total Dissolved Solids (TDS)	mg/L	28	1	4	188.8	40	132	136.9	35	26.6	40 - 40	2015-10-19 to 2025-06-03
CLF1B-1	Total Dissolved Solids (TDS)	mg/L	27	0	0	672.5	498	595	585	38	6.34	NA	2015-10-21 to 2025-06-09
CLF1B-2	Total Dissolved Solids (TDS)	mg/L	27	0	0	661.2	390	516	512	80	15.5	NA	2015-10-21 to 2025-06-09
CLF1B-3	Total Dissolved Solids (TDS)	mg/L	27	0	0	5355	277	789	642.5	930	117	NA	2015-10-22 to 2025-06-09
CLF1B-4	Total Dissolved Solids (TDS)	mg/L	27	0	0	612.5	257	435	417.5	110	25.8	NA	2015-10-22 to 2025-06-09
CLF1B-5	Total Dissolved Solids (TDS)	mg/L	28	0	0	1280	528	984	1024	210	20.9	NA	2015-10-22 to 2025-06-09
PM-1	Total Dissolved Solids (TDS)	mg/L	32	1	3	206	40	134	130	38	28.8	40 - 40	2015-01-26 to 2025-06-02
CBW-1	pH, Field	pH units	28	0	0	4.69	4.09	4.35	4.325	0.16	3.58	NA	2015-10-19 to 2025-06-03
CLF1B-1	pH, Field	pH units	27	0	0	6.84	6.27	6.59	6.58	0.14	2.05	NA	2015-10-21 to 2025-06-09
CLF1B-2	pH, Field	pH units	27	0	0	7.09	6.5	6.87	6.88	0.14	2	NA	2015-10-21 to 2025-06-09
CLF1B-3	pH, Field	pH units	27	0	0	6.94	6.43	6.7	6.69	0.11	1.72	NA	2015-10-22 to 2025-06-09
CLF1B-4	pH, Field	pH units	27	0	0	7.38	6.88	7.08	7.04	0.14	1.97	NA	2015-10-22 to 2025-06-09
CLF1B-5	pH, Field	pH units	28	0	0	6.89	5.57	6.62	6.65	0.23	3.43	NA	2015-10-22 to 2025-06-09
PM-1	pH, Field	pH units	33	0	0	5.58	4.53	5.12	5.19	0.22	4.33	NA	2015-01-26 to 2025-06-02

Note:

NA = not applicable, constituent detected in all reported samples.

Table A-2. Results of Shapiro-Wilk Test for Normality

		Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)					
Location	Constituent	W statistic	p-value	Sample Count (n)	Non-Detect Count (n)	Data Normality (significance level = 0.05)	Data Normality (significance level = 0.01)
CBW-1	Boron	0.216	5.8e-11	27	2	Not normal	Not normal
CLF1B-1	Boron	0.685	2.4e-06	27	17	Not normal	Not normal
CLF1B-2	Boron	0.897	0.011	27	4	Not normal	Normal
CLF1B-3	Boron	0.871	0.0031	27	0	Not normal	Not normal
CLF1B-4	Boron	0.897	0.012	27	0	Not normal	Normal
CLF1B-5	Boron	0.932	0.077	27	4	Normal	Normal
PM-1	Boron	0.687	2.5e-06	27	10	Not normal	Not normal
CBW-1	Calcium	0.846	0.00095	27	0	Not normal	Not normal
CLF1B-1	Calcium	0.912	0.03	26	0	Not normal	Normal
CLF1B-2	Calcium	0.736	1.7e-05	26	0	Not normal	Not normal
CLF1B-3	Calcium	0.955	0.33	25	0	Normal	Normal
CLF1B-4	Calcium	0.956	0.32	26	0	Normal	Normal
CLF1B-5	Calcium	0.900	0.013	27	0	Not normal	Normal
PM-1	Calcium	0.430	2.3e-09	28	0	Not normal	Not normal
CBW-1	Chloride	0.969	0.55	28	0	Normal	Normal
CLF1B-1	Chloride	0.944	0.15	27	0	Normal	Normal
CLF1B-2	Chloride	0.929	0.065	27	0	Normal	Normal
CLF1B-3	Chloride	0.577	1.1e-07	27	0	Not normal	Not normal
CLF1B-4	Chloride	0.788	8.4e-05	27	0	Not normal	Not normal
CLF1B-5	Chloride	0.946	0.15	28	0	Normal	Normal
PM-1	Chloride	0.962	0.4	28	0	Normal	Normal
CBW-1	Fluoride	0.977	0.8	26	1	Normal	Normal
CLF1B-1	Fluoride	0.779	7.8e-05	26	14	Not normal	Not normal
CLF1B-2	Fluoride	0.574	1.5e-07	26	20	Not normal	Not normal
CLF1B-3	Fluoride	0.871	0.0037	26	9	Not normal	Not normal
CLF1B-4	Fluoride	0.390	2.3e-09	26	23	Not normal	Not normal
CLF1B-5	Fluoride	0.393	2.5e-09	26	23	Not normal	Not normal
CBW-1	Sulfate	0.906	0.016	28	0	Not normal	Normal
CLF1B-1	Sulfate	0.810	0.0002	27	0	Not normal	Not normal
CLF1B-2	Sulfate	0.777	5.6e-05	27	0	Not normal	Not normal
CLF1B-3	Sulfate	0.974	0.71	27	0	Normal	Normal
CLF1B-4	Sulfate	0.832	0.00053	27	0	Not normal	Not normal
CLF1B-5	Sulfate	0.887	0.0056	28	0	Not normal	Not normal
PM-1	Sulfate	0.804	0.00013	28	0	Not normal	Not normal
CBW-1	Total Dissolved Solids (TDS)	0.939	0.1	28	1	Normal	Normal
CLF1B-1	Total Dissolved Solids (TDS)	0.963	0.44	27	0	Normal	Normal
CLF1B-2	Total Dissolved Solids (TDS)	0.963	0.43	27	0	Normal	Normal
CLF1B-3	Total Dissolved Solids (TDS)	0.339	5.4e-10	27	0	Not normal	Not normal
CLF1B-4	Total Dissolved Solids (TDS)	0.928	0.063	27	0	Normal	Normal
CLF1B-5	Total Dissolved Solids (TDS)	0.942	0.13	28	0	Normal	Normal
PM-1	Total Dissolved Solids (TDS)	0.958	0.24	32	1	Normal	Normal
CBW-1	pH, Field	0.966	0.49	28	0	Normal	Normal
CLF1B-1	pH, Field	0.971	0.63	27	0	Normal	Normal
CLF1B-2	pH, Field	0.957	0.31	27	0	Normal	Normal
CLF1B-3	pH, Field	0.984	0.95	27	0	Normal	Normal
CLF1B-4	pH, Field	0.936	0.096	27	0	Normal	Normal
CLF1B-5	pH, Field	0.601	1.5e-07	28	0	Not normal	Not normal
PM-1	pH, Field	0.948	0.12	33	0	Normal	Normal

Table A-3. Results of Rosner/Dixon Test for Outliers

				Rosner or Dixon Test for Outliers (R programming, package = outliers, version 0.15, function = dixon.test or rosnerTest, non-detects substituted by reporting limit)						
Location	Constituent	n	n, non-detects	Outlier Test	statistic	p-value (Dixon)	critical value (Rosner)	n of statistical outliers (significance level = 0.05, Rosner)	statistical outlier (significance level = 0.05, Dixon)	outlier removed
CBW-1	Boron	27	2	Rosner	5.001, 3.272, 2.628	NA	2.859, 2.841, 2.822	2	NA	No
CLF1B-1	Boron	27	17	Rosner	3.44, 3.903, 3.758	NA	2.859, 2.841, 2.822	3	NA	No
CLF1B-2	Boron	27	4	Rosner	3.608, 2.4, 2.64	NA	2.859, 2.841, 2.822	1	NA	No
CLF1B-3	Boron	27	0	Rosner	2.912, 2.437, 2.196	NA	2.859, 2.841, 2.822	1	NA	No
CLF1B-4	Boron	27	0	Rosner	1.904, 1.847, 1.96	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-5	Boron	27	4	Rosner	2.106, 2.214, 2.009	NA	2.859, 2.841, 2.822	0	NA	No
PM-1	Boron	27	10	Rosner	3.627, 4.485, 2.202	NA	2.859, 2.841, 2.822	2	NA	No
CBW-1	Calcium	27	0	Rosner	3.586, 2.499, 1.625	NA	2.859, 2.841, 2.822	1	NA	No
CLF1B-1	Calcium	26	0	Rosner	2.181, 2.482, 1.876	NA	2.841, 2.822, 2.802	0	NA	No
CLF1B-2	Calcium	26	0	Rosner	4.068, 1.939, 2.161	NA	2.841, 2.822, 2.802	1	NA	No
CLF1B-3	Calcium	25	0	Dixon	0.1923	0.974	NA	NA	No	No
CLF1B-4	Calcium	26	0	Rosner	2.64, 2.073, 2.005	NA	2.841, 2.822, 2.802	0	NA	No
CLF1B-5	Calcium	27	0	Rosner	2.163, 2.442, 1.917	NA	2.859, 2.841, 2.822	0	NA	No
PM-1	Calcium	28	0	Rosner	4.872, 3.323, 2.391	NA	2.876, 2.859, 2.841	2	NA	No
CBW-1	Chloride	28	0	Rosner	1.862, 1.802, 1.939	NA	2.876, 2.859, 2.841	0	NA	No
CLF1B-1	Chloride	27	0	Rosner	2.153, 2.102, 2.075	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-2	Chloride	27	0	Rosner	3.115, 1.758, 1.722	NA	2.859, 2.841, 2.822	1	NA	No
CLF1B-3	Chloride	27	0	Rosner	4.435, 3.044, 2.88	NA	2.859, 2.841, 2.822	3	NA	No
CLF1B-4	Chloride	27	0	Rosner	1.238, 1.301, 1.37	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-5	Chloride	28	0	Rosner	2.254, 1.77, 1.584	NA	2.876, 2.859, 2.841	0	NA	No
PM-1	Chloride	28	0	Rosner	2.15, 2.232, 1.813	NA	2.876, 2.859, 2.841	0	NA	No
CBW-1	Fluoride	26	1	Rosner	1.835, 1.853, 1.853	NA	2.841, 2.822, 2.802	0	NA	No
CLF1B-1	Fluoride	26	14	Rosner	3.008, 2.86, 2.387	NA	2.841, 2.822, 2.802	2	NA	No
CLF1B-2	Fluoride	26	20	Rosner	3.576, 3.41, 3.608	NA	2.841, 2.822, 2.802	3	NA	No
CLF1B-3	Fluoride	26	9	Rosner	2.596, 2.715, 2.398	NA	2.841, 2.822, 2.802	0	NA	No
CLF1B-4	Fluoride	26	23	Rosner	3.898, 4.276, 4.695	NA	2.841, 2.822, 2.802	3	NA	No
CLF1B-5	Fluoride	26	23	Rosner	4.471, 4.276, 4.695	NA	2.841, 2.822, 2.802	3	NA	No
PM-1	Fluoride	26	26	Rosner	All results are non-detect	NA	NA	NA	NA	No
CBW-1	Sulfate	28	0	Rosner	3.41, 2.308, 1.949	NA	2.876, 2.859, 2.841	1	NA	No
CLF1B-1	Sulfate	27	0	Rosner	3.249, 3.417, 1.816	NA	2.859, 2.841, 2.822	2	NA	No
CLF1B-2	Sulfate	27	0	Rosner	2.465, 2.731, 3.26	NA	2.859, 2.841, 2.822	3	NA	No
CLF1B-3	Sulfate	27	0	Rosner	1.955, 1.913, 1.924	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-4	Sulfate	27	0	Rosner	2.158, 2.163, 2.334	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-5	Sulfate	28	0	Rosner	2.233, 2.24, 2.251	NA	2.876, 2.859, 2.841	0	NA	No
PM-1	Sulfate	28	0	Rosner	2.549, 2.792, 2.445	NA	2.876, 2.859, 2.841	0	NA	No
CBW-1	Total Dissolved Solids (TDS)	28	1	Rosner	2.624, 2.398, 1.826	NA	2.876, 2.859, 2.841	0	NA	No
CLF1B-1	Total Dissolved Solids (TDS)	27	0	Rosner	2.571, 2.232, 2.054	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-2	Total Dissolved Solids (TDS)	27	0	Rosner	1.818, 1.774, 1.698	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-3	Total Dissolved Solids (TDS)	27	0	Rosner	4.933, 2.133, 2.074	NA	2.859, 2.841, 2.822	1	NA	No
CLF1B-4	Total Dissolved Solids (TDS)	27	0	Rosner	1.586, 1.575, 1.647	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-5	Total Dissolved Solids (TDS)	28	0	Rosner	2.217, 1.792, 1.484	NA	2.876, 2.859, 2.841	0	NA	No
PM-1	Total Dissolved Solids (TDS)	32	1	Rosner	2.436, 2.304, 2.07	NA	2.938, 2.924, 2.908	0	NA	No
CBW-1	pH, Field	28	0	Rosner	2.193, 2.402, 1.811	NA	2.876, 2.859, 2.841	0	NA	No
CLF1B-1	pH, Field	27	0	Rosner	2.398, 2.368, 2.053	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-2	pH, Field	27	0	Rosner	2.681, 2.304, 2.097	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-3	pH, Field	27	0	Rosner	2.311, 2.254, 2.374	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-4	pH, Field	27	0	Rosner	2.13, 2.32, 1.561	NA	2.859, 2.841, 2.822	0	NA	No
CLF1B-5	pH, Field	28	0	Rosner	4.604, 2.356, 2.051	NA	2.876, 2.859, 2.841	1	NA	No
PM-1	pH, Field	33	0	Rosner	2.666, 2.324, 2.33	NA	2.952, 2.938, 2.924	0	NA	No

Table A-4. Results of Mann Kendall and Thiel Sen Trend Tests

		Mann Kendall Trends		Secular Trend Evaluation for All Data Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Secular Trend Evaluation for Recent Data (subset of 8 most recent data points) Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)						
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	n	n, detected results	recent data date range	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)
CLF1B-1	Boron	Increasing	Increasing	27	10	0.347	0.499	0.00101	99.9	137	8	7	2020-06-22 to 2025-06-09	0.216	0.643	0.0354	96.5	18
CLF1B-2	Boron	Increasing	Probably Increasing	27	23	0.397	0.302	0.0311	96.9	104	8	7	2020-06-22 to 2025-06-09	0.344	0.571	0.0635	93.7	16
CLF1B-3	Boron	Increasing	Stable	27	27	0.661	0.645	0.00000274	100	226	8	8	2020-06-22 to 2025-06-09	0.303	-0.182	0.618	38.2	-5
CLF1B-4	Boron	No Trend	No Trend	27	27	0.213	0.196	0.161	83.9	68	8	8	2020-06-23 to 2025-06-09	0.113	0.429	0.174	82.6	12
CLF1B-5	Boron	Increasing	Increasing	27	23	0.356	0.768	0	100	262	8	8	2020-06-23 to 2025-06-09	0.0869	0.643	0.0354	96.5	18
CLF1B-1	Calcium	No Trend	Increasing	26	26	0.0585	0.0719	0.627	37.3	23	8	8	2020-06-22 to 2025-06-09	0.0675	0.691	0.0248	97.5	19
CLF1B-2	Calcium	Increasing	Probably Increasing	26	26	0.124	0.492	0.000558	99.9	157	8	8	2020-06-22 to 2025-06-09	0.0458	0.546	0.0809	91.9	15
CLF1B-3	Calcium	Increasing	Stable	25	25	0.216	0.427	0.00302	99.7	128	8	8	2020-06-22 to 2025-06-09	0.107	-0.357	0.266	73.4	-10
CLF1B-4	Calcium	Increasing	No Trend	26	26	0.219	0.579	0.0000407	100	187	8	8	2020-06-23 to 2025-06-09	0.059	0.371	0.258	74.2	10
CLF1B-5	Calcium	Increasing	No Trend	27	27	0.166	0.83	0	100	290	8	8	2020-06-23 to 2025-06-09	0.0307	0.357	0.266	73.4	10
CLF1B-1	Chloride	Decreasing	Decreasing	27	27	0.108	-0.395	0.00426	99.6	-138	8	8	2020-06-22 to 2025-06-09	0.137	-0.643	0.0354	96.5	-18
CLF1B-2	Chloride	Increasing	Increasing	27	27	0.16	0.84	0	100	295	8	8	2020-06-22 to 2025-06-09	0.0393	0.786	0.00937	99.1	22
CLF1B-3	Chloride	Stable	No Trend	27	27	0.459	-0.02	0.9	10	-7	8	8	2020-06-22 to 2025-06-09	0.398	0.286	0.386	61.4	8
CLF1B-4	Chloride	Increasing	Stable	27	27	0.307	0.563	0.0000435	100	197	8	8	2020-06-23 to 2025-06-09	0.0287	-0.473	0.135	86.5	-13
CLF1B-5	Chloride	Increasing	No Trend	28	28	0.218	0.859	0	100	322	8	8	2020-06-23 to 2025-06-09	0.045	0.148	0.706	29.4	4
CLF1B-1	Fluoride	Decreasing	Stable	26	12	0.519	-0.332	0.0316	96.8	-90	8	3	2020-06-22 to 2025-06-09	0.501	-0.356	0.316	68.4	-8
CLF1B-2	Fluoride	Not Evaluated - Majority of data (>75%) non-detect.	Not Evaluated - No detected results.	26	6	0.511	NA	NA	NA	NA	8	0	2020-06-22 to 2025-06-09	0	NA	NA	NA	NA
CLF1B-3	Fluoride	No Trend	Stable	26	17	0.445	0.104	0.496	50.4	31	8	6	2020-06-22 to 2025-06-09	0.458	-0.148	0.706	29.4	-4
CLF1B-4	Fluoride	Not Evaluated - Majority of data (>75%) non-detect.	Not Evaluated - No detected results.	26	3	0.396	NA	NA	NA	NA	8	0	2020-06-23 to 2025-06-09	0	NA	NA	NA	NA
CLF1B-5	Fluoride	Not Evaluated - Majority of data (>75%) non-detect.	Not Evaluated - No detected results.	26	3	0.436	NA	NA	NA	NA	8	0	2020-06-23 to 2025-06-09	0	NA	NA	NA	NA
CLF1B-1	Sulfate	Increasing	Increasing	27	27	0.123	0.336	0.0154	98.5	117	8	8	2020-06-22 to 2025-08-25	0.162	0.786	0.00937	99.1	22
CLF1B-2	Sulfate	Probably Increasing	Probably Increasing	27	27	0.193	0.261	0.0604	94	91	8	8	2020-06-22 to 2025-08-25	0.196	0.571	0.0635	93.7	16
CLF1B-3	Sulfate	Increasing	Stable	27	27	0.498	0.527	0.000125	100	185	8	8	2020-06-22 to 2025-06-09	0.228	-0.5	0.108	89.2	-14
CLF1B-4	Sulfate	No Trend	No Trend	27	27	0.346	0.163	0.243	75.7	57	8	8	2020-06-23 to 2025-06-09	0.239	0.429	0.174	82.6	12
CLF1B-5	Sulfate	Increasing	Stable	28	28	0.393	0.76	0	100	287	8	8	2020-06-23 to 2025-06-09	0.0235	-0.182	0.618	38.2	-5
CLF1B-1	Total Dissolved Solids (TDS)	No Trend	No Trend	27	27	0.0634	0.206	0.139	86.1	72	8	8	2020-06-22 to 2025-06-09	0.0542	0.5	0.108	89.2	14
CLF1B-2	Total Dissolved Solids (TDS)	Increasing	Probably Increasing	27	27	0.155	0.58	0.0000252	100	203	8	8	2020-06-22 to 2025-06-09	0.0688	0.571	0.0635	93.7	16
CLF1B-3	Total Dissolved Solids (TDS)	Increasing	Stable	27	27	1.17	0.333	0.0156	98.4	117	8	8	2020-06-22 to 2025-06-09	0.138	-0.214	0.536	46.4	-6
CLF1B-4	Total Dissolved Solids (TDS)	Increasing	No Trend	27	27	0.258	0.622	0.00000608	100	218	8	8	2020-06-23 to 2025-06-09	0.0712	0.429	0.174	82.6	12
CLF1B-5	Total Dissolved Solids (TDS)	Increasing	No Trend	28	28	0.209	0.778	0	100	293	8	8	2020-06-23 to 2025-06-09	0.0535	0.473	0.135	86.5	13
CLF1B-1	pH, Field	Stable	Stable	27	27	0.0205	-0.00288	1	0	-1	8	8	2020-06-22 to 2025-06-09	0.0216	-0.255	0.454	54.6	-7
CLF1B-2	pH, Field	Probably Decreasing	Stable	27	27	0.02	-0.257	0.0661	93.4	-89	8	8	2020-06-22 to 2025-06-09	0.0201	-0.109	0.803	19.7	-3
CLF1B-3	pH, Field	Stable	No Trend	27	27	0.0172	-0.0921	0.517	48.3	-32	8	8	2020-06-22 to 2025-06-09	0.0146	0.182	0.618	38.2	5
CLF1B-4	pH, Field	Decreasing	No Trend	27	27	0.0197	-0.376	0.00665	99.3	-131	8	8	2020-06-23 to 2025-06-09	0.0121	0.0714	0.902	9.8	2
CLF1B-5	pH, Field	Stable	No Trend	28	28	0.0343	-0.197	0.153	84.7	-73	8	8	2020-06-23 to 2025-06-09	0.0177	0.445	0.167	83.3	12

Note:

Mann Kendall Trends are classified based on Aziz (2003) guidance.

Table A-5. Intrawell Prediction Limit Calculations

								Baseline Data Characterization [a]					Prediction Limits			95% Confidence Parametric Prediction Limit Calculation Details					Non-Parametric Prediction Limit Calculation Details	
Location	Constituent	Units	Baseline Distribution [a]	Prediction Interval Calculation	min baseline sample date	max baseline sample sample	n	n, non-detects	max	min	mean	standard deviation	Trend (Baseline Data)	Prediction Limit Calculation Method	UPL	LPL	degrees of freedom	future samples (M)	confidence level (%) for M sample comparisons	t (percentile of student's t-test)	t quantile	achieved confidence level (%)	false positive rate (%)
CLF1B-1	Boron	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	17	0.0161	0.0101	0.01462	0.001343	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0161	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-2	Boron	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	4	0.0398	0.01	0.01854	0.005662	Probably Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0398	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-3	Boron	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	0.181	0.0172	0.06047	0.04103	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.181	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-4	Boron	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	0.0298	0.016	0.02164	0.004418	No Trend	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0355	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-5	Boron	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	4	0.0295	0.015	0.0192	0.004651	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.03379	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-1	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	25	NA	201	166	177.4	9.526	Stable	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	207.4	NA	24	4	99.75	0.9975	3.091	NA	NA
CLF1B-2	Calcium	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	25	NA	210	120	139.1	17.3	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	210	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-3	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	24	NA	257	100	185.6	40.83	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	314.9	NA	23	4	99.75	0.9975	3.104	NA	NA
CLF1B-4	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	25	NA	180	67	112.6	24.15	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	188.7	NA	24	4	99.75	0.9975	3.091	NA	NA
CLF1B-5	Calcium	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	300	160	247.4	40.93	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	375.8	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-1	Chloride	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	42.4	28.2	36.97	3.953	Decreasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	49.36	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-2	Chloride	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	93.9	39.6	78.16	12.28	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	116.7	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-3	Chloride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	81.2	15.6	26.33	12.34	Stable	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	81.2	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-4	Chloride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	100	47.2	71.56	22.2	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	100	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-5	Chloride	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	27	NA	180	69.5	135	29.12	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	226	NA	26	4	99.75	0.9975	3.067	NA	NA
CLF1B-1	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	25	13	0.19	0.1	0.1176	0.02454	Probably Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.19	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-2	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	25	19	0.16	0.1	0.1068	0.0152	Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.16	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-3	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	25	9	0.2	0.1	0.1264	0.02899	No Trend	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.2	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-4	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	25	22	0.13	0.1	0.1024	0.007234	Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.13	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-5	Fluoride	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	25	22	0.15	0.1	0.1032	0.01069	Stable	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.15	NA	24	4	NA	NA	NA	86.2	13.8
CLF1B-1	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	NA	191	123	143.4	13.93	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	191	NA	25	4	NA	NA	NA	86.7	13.3

Note:

[a] `Baseline` data refer to the entire statistical dataset, except the most recent data point. Baseline datasets were re-tested for outliers, secular trends, and data normality. No outliers were removed.

Prediction limits calculated using simple replacement with the reporting limit for non-detect results.

UPL = Upper Prediction Limit. LPL = Lower Prediction Limit, calculated for pH, Field only.

			Baseline Data Characterization [a]											Prediction Limits		95% Confidence Parametric Prediction Limit Calculation Details					Non-Parametric Prediction Limit Calculation Details	
Location	Constituent	Units	Baseline Distribution [a]	Prediction Interval Calculation	min baseline sample date	max baseline sample sample	n	n, non-detects	max	min	mean	standard deviation	Trend (Baseline Data)	Prediction Limit Calculation Method	UPL	LPL	degrees of freedom	future samples (M)	confidence level (%) for M sample comparisons	t (percentile of student's t-test)	t quantile	achieved confidence level (%)	false positive rate (%)
CLF1B-2	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-21	2025-01-27	26	NA	22.4	12.4	14.91	2.669	No Trend	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	22.4	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-3	Sulfate	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	380	13	191	97.52	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	496.9	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-4	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	34.3	12.2	19.13	6.409	No Trend	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	34.3	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-5	Sulfate	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	27	NA	291	24.2	193.1	76.96	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	291	NA	26	4	NA	NA	NA	87.1	12.9
CLF1B-1	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	672.5	498	592.7	36.33	No Trend	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	706.6	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-2	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	661.2	390	511.4	78.35	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	757.2	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-3	Total Dissolved Solids (TDS)	mg/L	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	26	NA	5355	276.7	792.6	943.7	Increasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	5355	NA	25	4	NA	NA	NA	86.7	13.3
CLF1B-4	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	612.5	256.7	429.7	111.3	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	778.9	NA	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-5	Total Dissolved Solids (TDS)	mg/L	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	27	NA	1280	528	973.8	202.6	Increasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	1606	NA	26	4	99.75	0.9975	3.067	NA	NA
CLF1B-1	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	6.84	6.27	6.595	0.1378	No Trend	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.027	6.163	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-2	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-21	2025-01-27	26	NA	7.09	6.5	6.871	0.1397	Probably Decreasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.309	6.433	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-3	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	6.94	6.43	6.695	0.1171	Stable	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.062	6.327	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-4	pH, Field	pH units	Normal at 99% confidence	Parametric	2015-10-22	2025-01-27	26	NA	7.38	6.9	7.09	0.1362	Decreasing	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	7.518	6.663	25	4	99.75	0.9975	3.078	NA	NA
CLF1B-5	pH, Field	pH units	Not normal at 99% confidence	Non-Parametric	2015-10-22	2025-01-27	27	NA	6.89	5.57	6.613	0.2311	Probably Decreasing	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	6.89	5.57	26	4	NA	NA	NA	87.1	12.9

Note:

[a] `Baseline` data refer to the entire statistical dataset, except the most recent data point. Baseline datasets were re-tested for outliers, secular trends, and data normality. No outliers were removed.

Prediction limits calculated using simple replacement with the reporting limit for non-detect results.

UPL = Upper Prediction Limit. LPL = Lower Prediction Limit, calculated for pH, Field only.

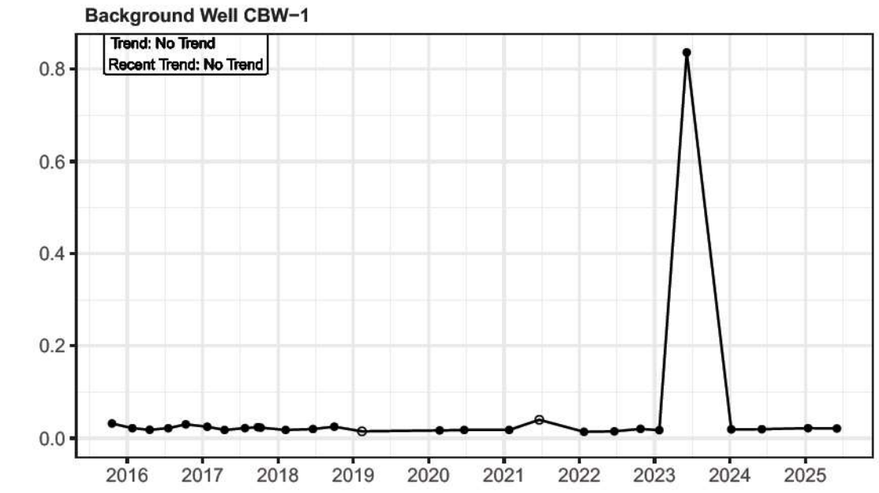
Table A-6. Intrawell Prediction Limit Comparison & Statistically Significant Increases

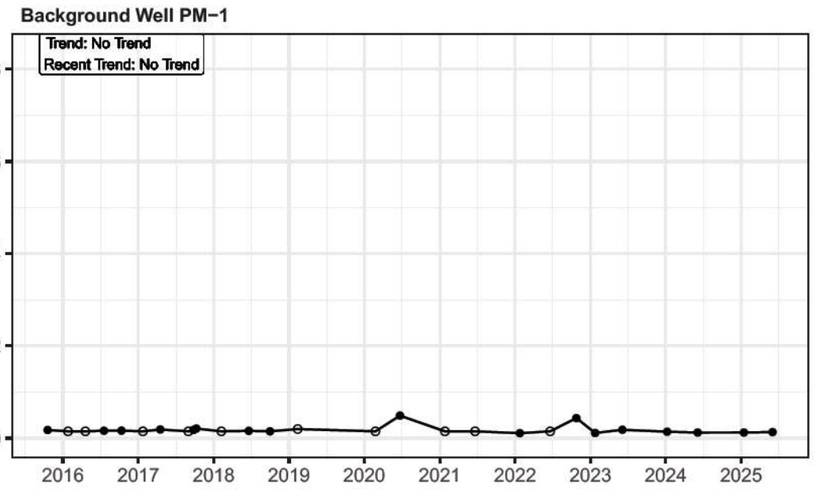
Location	Constituent	Units	Sample Date	Sample Result	Upper Prediction Limit (UPL)	Lower Prediction Limit (LPL)	Intrawell SSI
CLF1B-1	Boron	mg/L	2025-06-09	0.0152	0.0161	NA	No
CLF1B-2	Boron	mg/L	2025-06-09	0.0273	0.0398	NA	No
CLF1B-3	Boron	mg/L	2025-06-09	0.0989	0.181	NA	No
CLF1B-4	Boron	mg/L	2025-06-09	0.0309	0.0355	NA	No
CLF1B-5	Boron	mg/L	2025-06-09	0.0302	0.0338	NA	No
CLF1B-1	Calcium	mg/L	2025-06-09	201	207	NA	No
CLF1B-2	Calcium	mg/L	2025-06-09	156	210	NA	No
CLF1B-3	Calcium	mg/L	2025-06-09	209	315	NA	No
CLF1B-4	Calcium	mg/L	2025-06-09	153	189	NA	No
CLF1B-5	Calcium	mg/L	2025-06-09	297	376	NA	No
CLF1B-1	Chloride	mg/L	2025-06-09	32.1	49.4	NA	No
CLF1B-2	Chloride	mg/L	2025-06-09	97.6	117	NA	No
CLF1B-3	Chloride	mg/L	2025-06-09	37.3	81.2	NA	No
CLF1B-4	Chloride	mg/L	2025-06-09	95.6	100	NA	No
CLF1B-5	Chloride	mg/L	2025-06-09	179	226	NA	No
CLF1B-1	Fluoride	mg/L	2025-06-09	< 0.1	0.19	NA	No
CLF1B-2	Fluoride	mg/L	2025-06-09	< 0.1	0.16	NA	No
CLF1B-3	Fluoride	mg/L	2025-06-09	0.11	0.2	NA	No
CLF1B-4	Fluoride	mg/L	2025-06-09	< 0.1	0.13	NA	No
CLF1B-5	Fluoride	mg/L	2025-06-09	< 0.1	0.15	NA	No
CLF1B-1	Sulfate	mg/L	2025-08-25	204	191	NA	Yes
CLF1B-2	Sulfate	mg/L	2025-08-25	21.8	22.4	NA	No
CLF1B-3	Sulfate	mg/L	2025-06-09	231	497	NA	No
CLF1B-4	Sulfate	mg/L	2025-06-09	32.6	34.3	NA	No
CLF1B-5	Sulfate	mg/L	2025-06-09	268	291	NA	No
CLF1B-1	Total Dissolved Solids (TDS)	mg/L	2025-06-09	657.5	706.6	NA	No
CLF1B-2	Total Dissolved Solids (TDS)	mg/L	2025-06-09	627.5	757.2	NA	No
CLF1B-3	Total Dissolved Solids (TDS)	mg/L	2025-06-09	690	5355	NA	No
CLF1B-4	Total Dissolved Solids (TDS)	mg/L	2025-06-09	565	778.9	NA	No
CLF1B-5	Total Dissolved Solids (TDS)	mg/L	2025-06-09	1250	1606	NA	No
CLF1B-1	pH, Field	pH units	2025-06-09	6.57	7.03	6.16	No
CLF1B-2	pH, Field	pH units	2025-06-09	6.81	7.31	6.43	No
CLF1B-3	pH, Field	pH units	2025-06-09	6.72	7.06	6.33	No
CLF1B-4	pH, Field	pH units	2025-06-09	6.88	7.52	6.66	No
CLF1B-5	pH, Field	pH units	2025-06-09	6.69	6.89	5.57	No

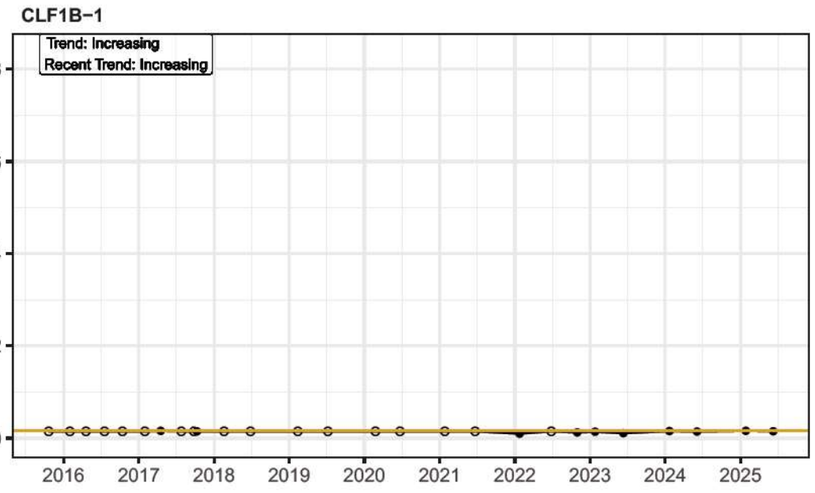
Statistically Significant Increases (SSIs) include any sample results that exceed prediction limits. In other words, an SSI is any sample concentration greater than the UPL, or any sample concentration less than the LCL for pH, Field.

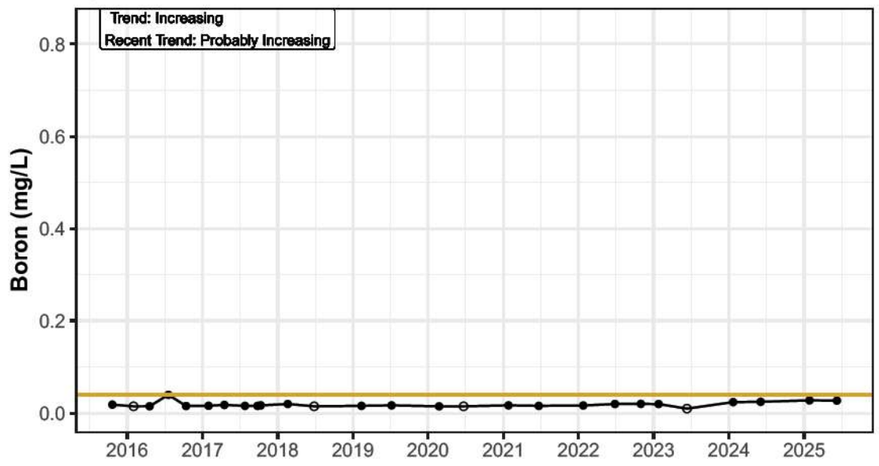
< indicates that the constituent was not detected above the method detection limit, the reporting detection limit is shown following the symbol.

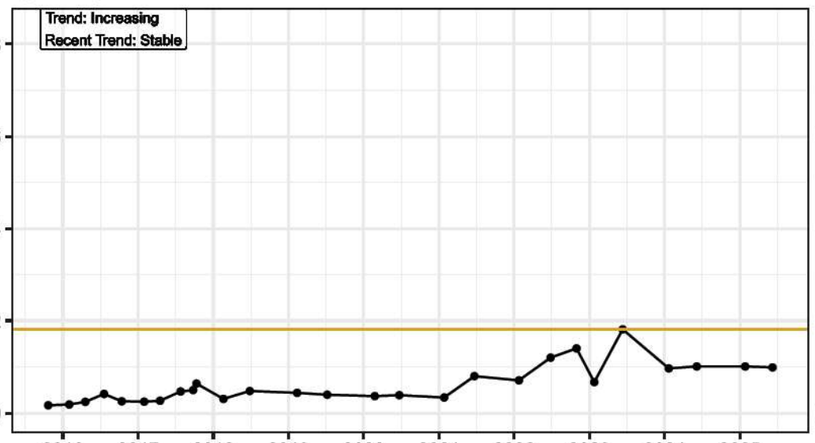
Trend Plots for Boron

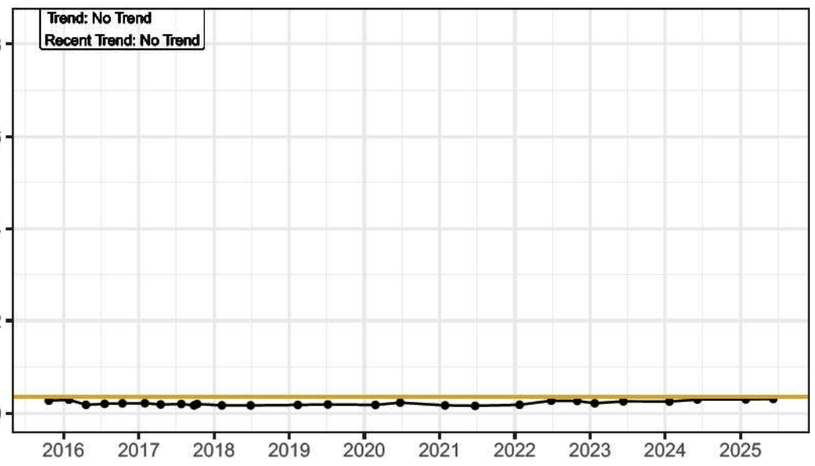


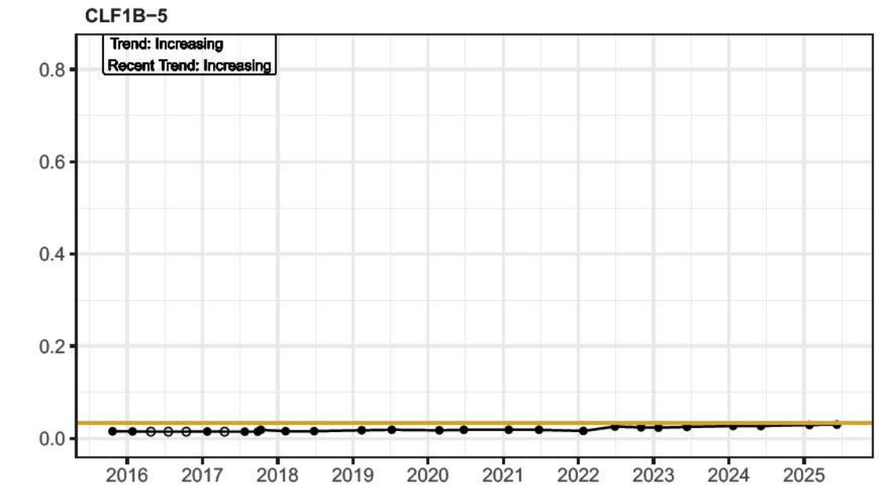








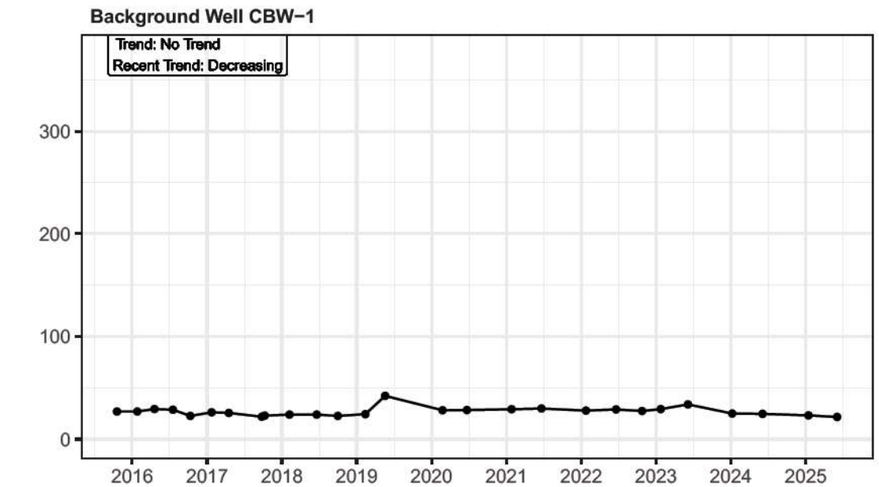


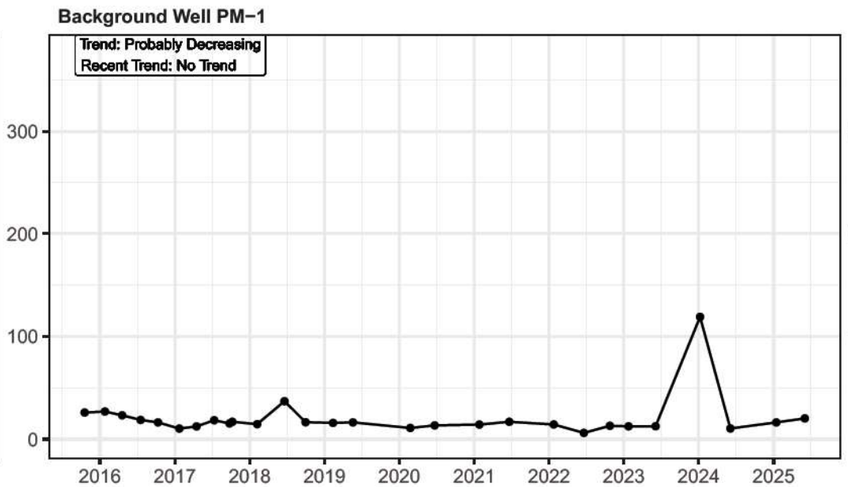


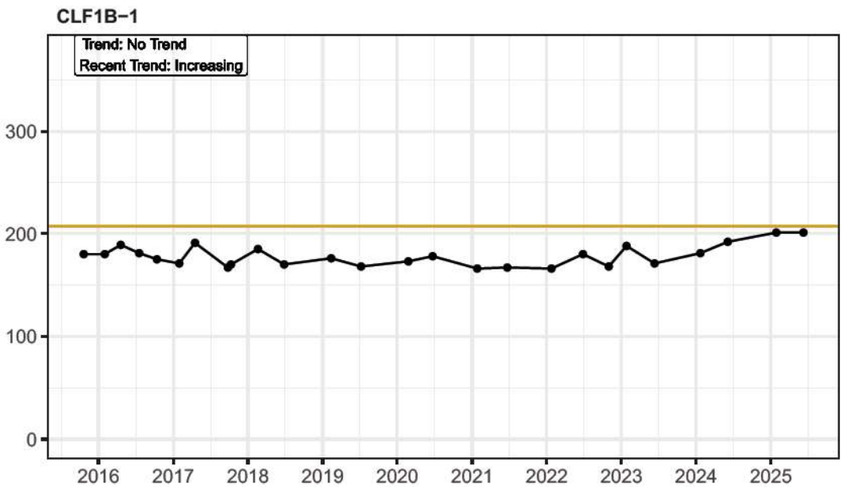
Detection Status: ● Detect ○ Non−Detect — Upper Prediction Limit

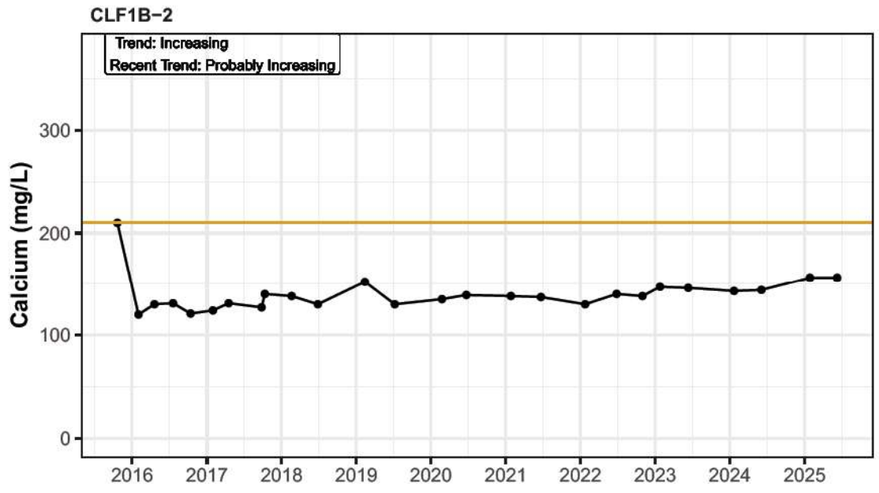
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

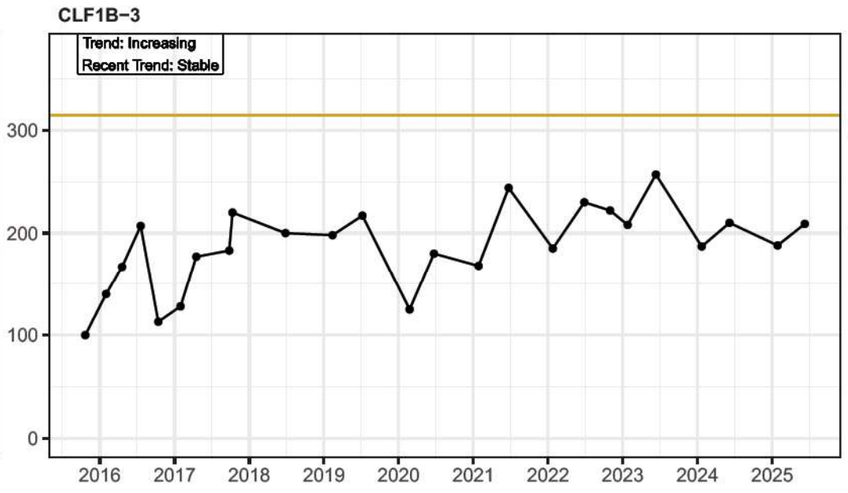
Trend Plots for Calcium

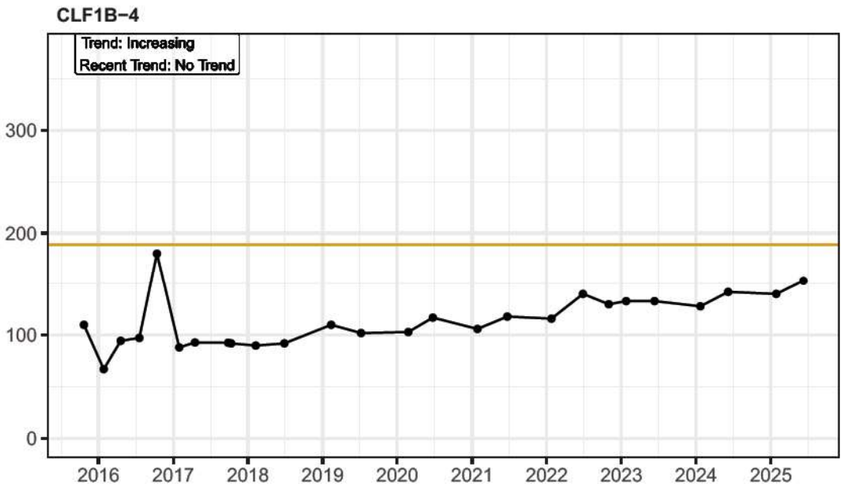


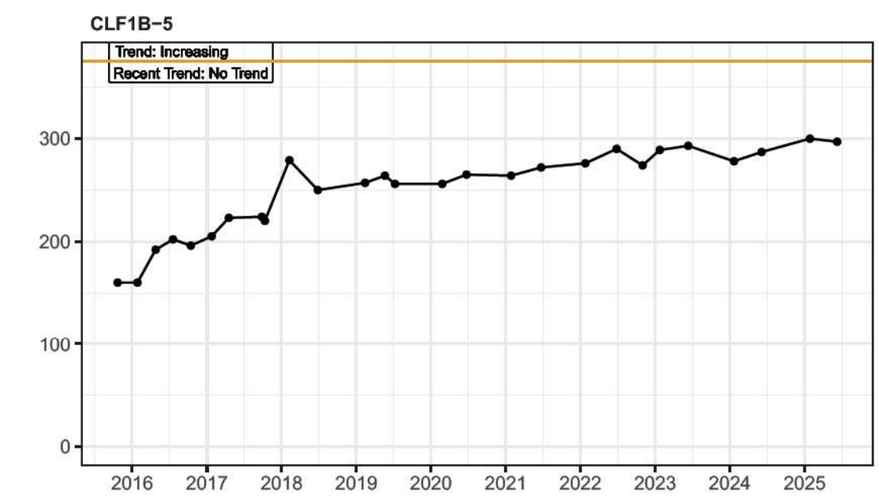








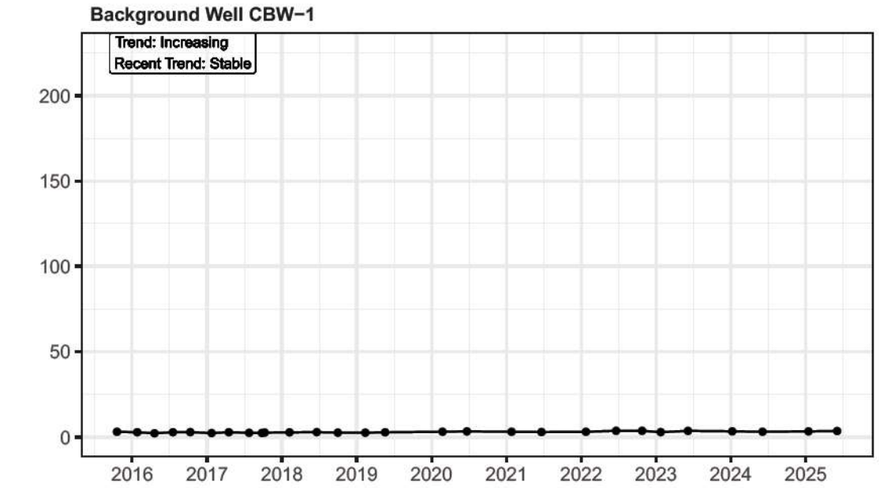


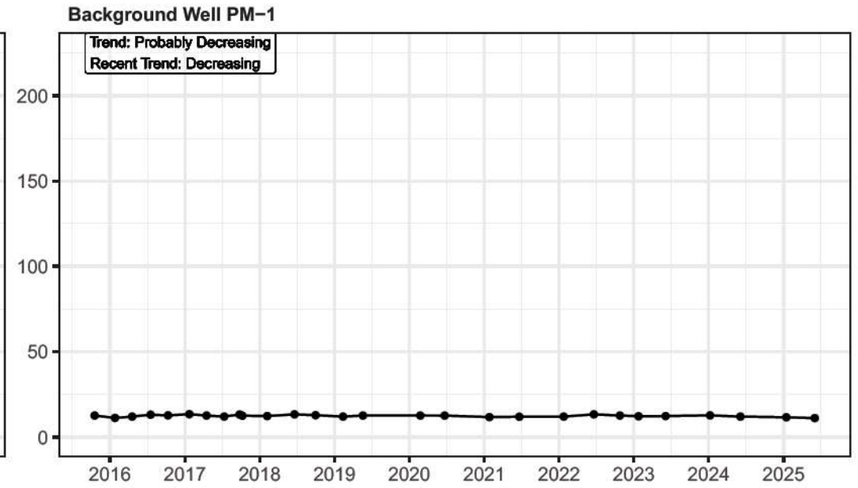


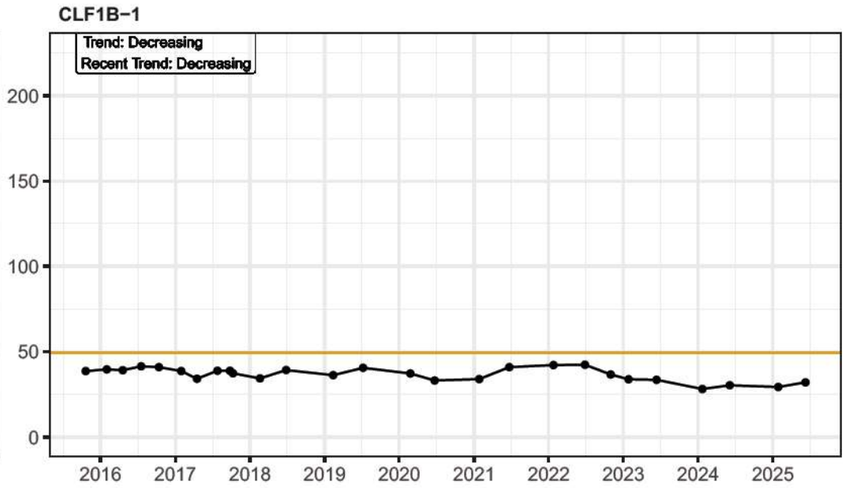
Upper Prediction Limit Detection Status: ● Detect

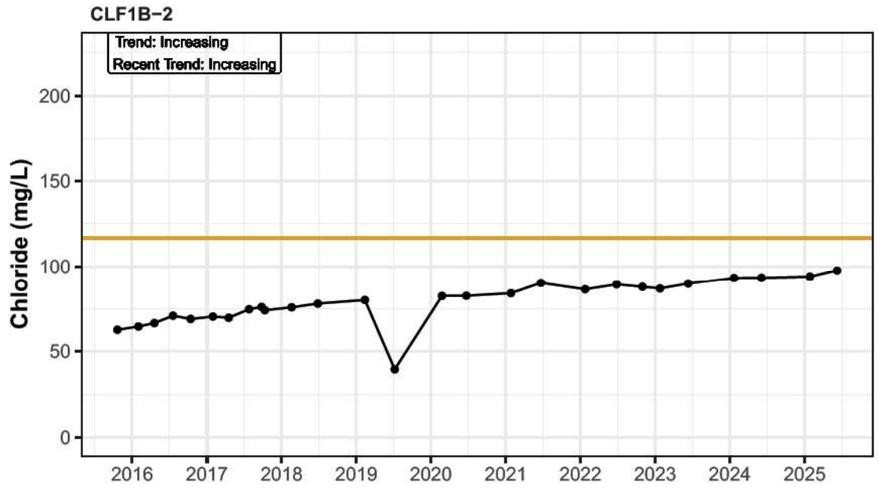
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

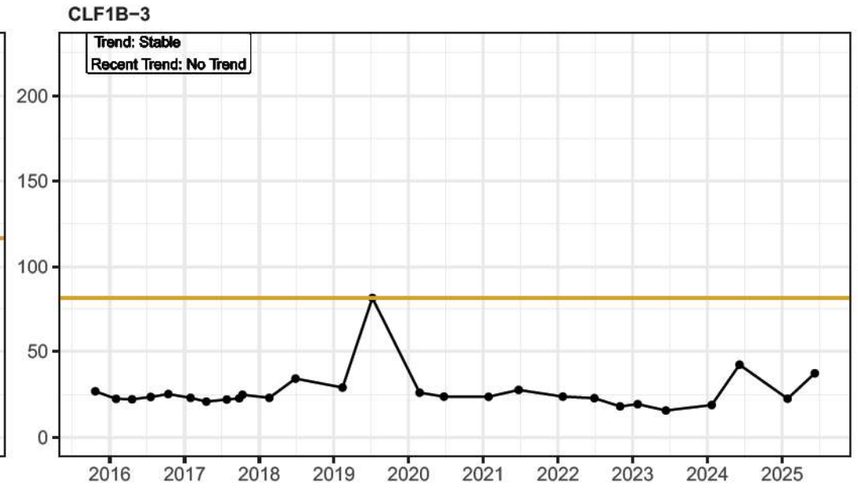
Trend Plots for Chloride

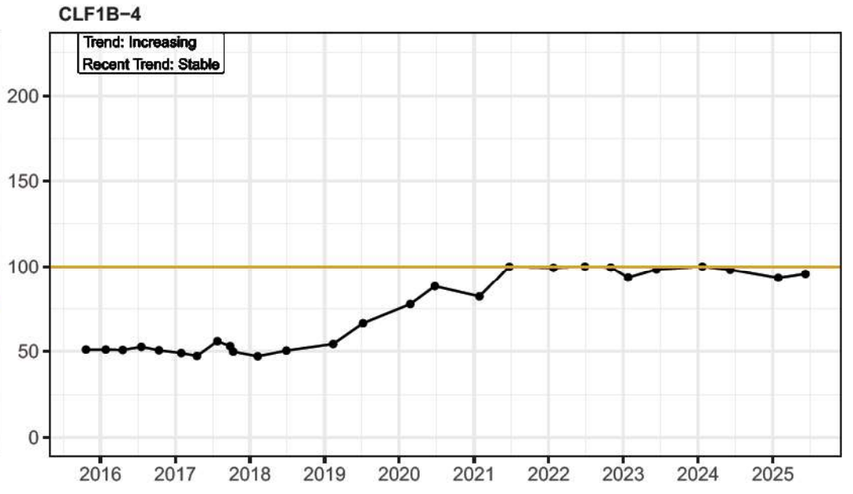


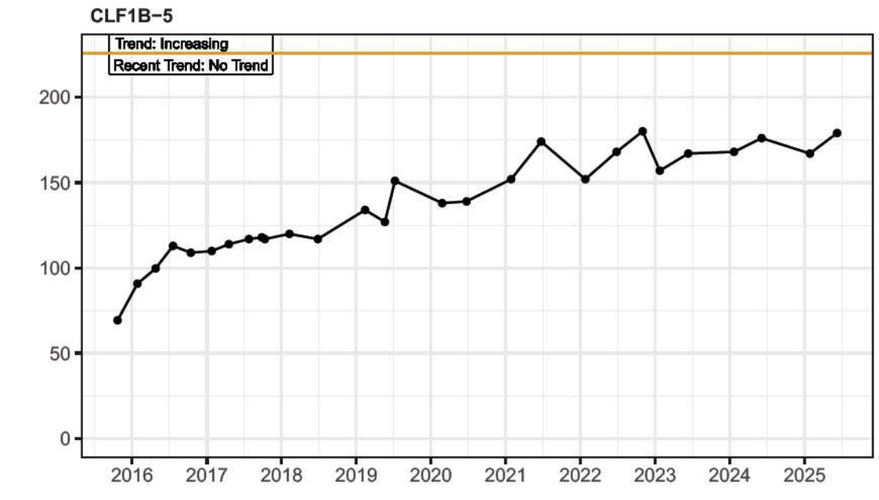








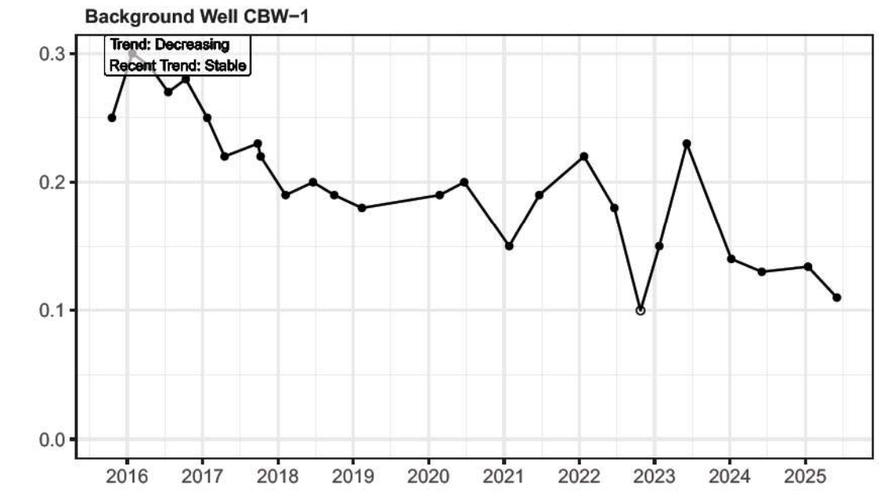


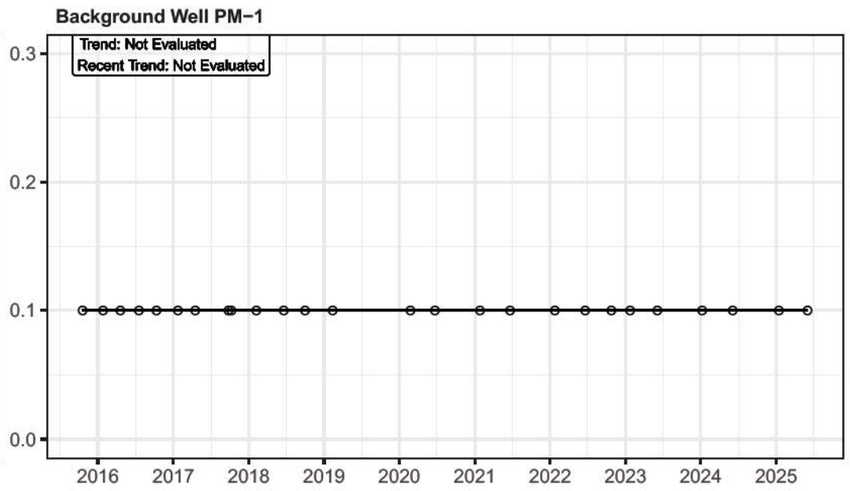


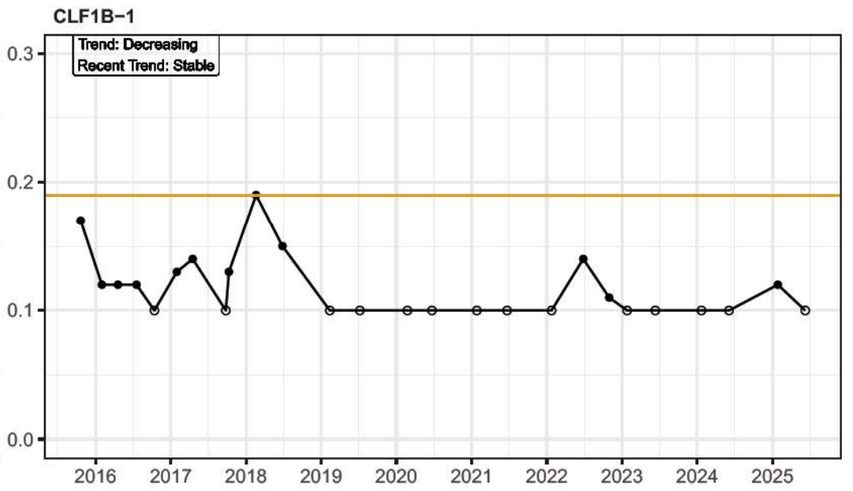
Upper Prediction Limit Detection Status: ● Detect

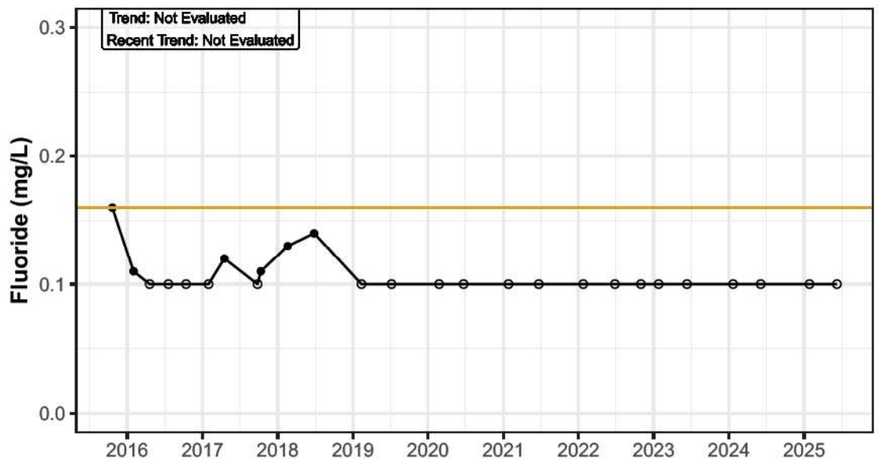
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

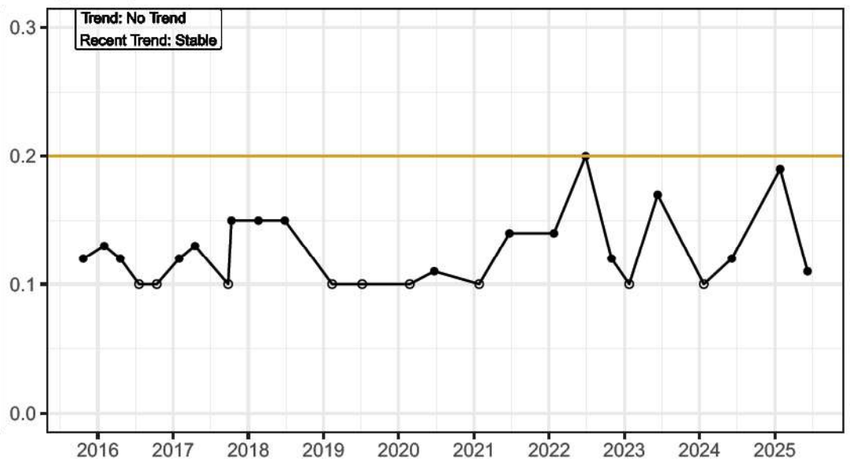
Trend Plots for Fluoride

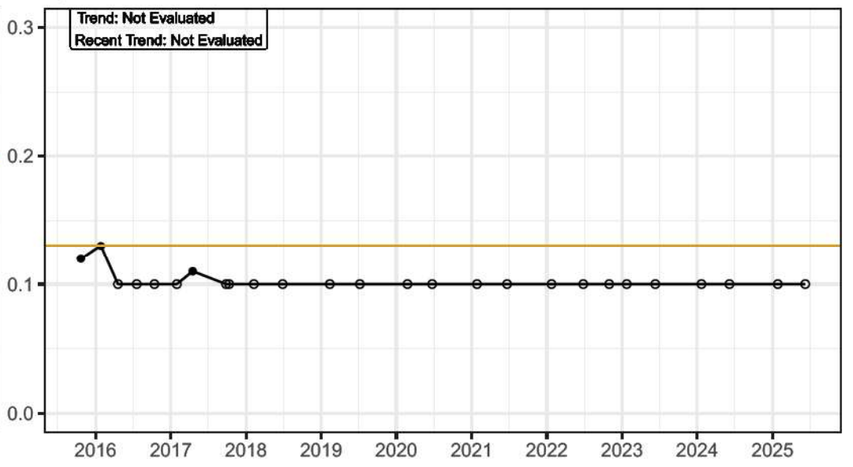


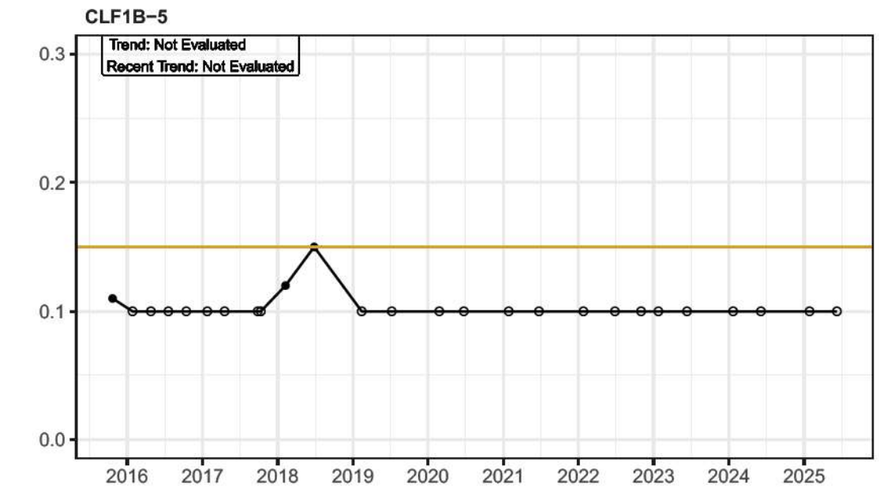








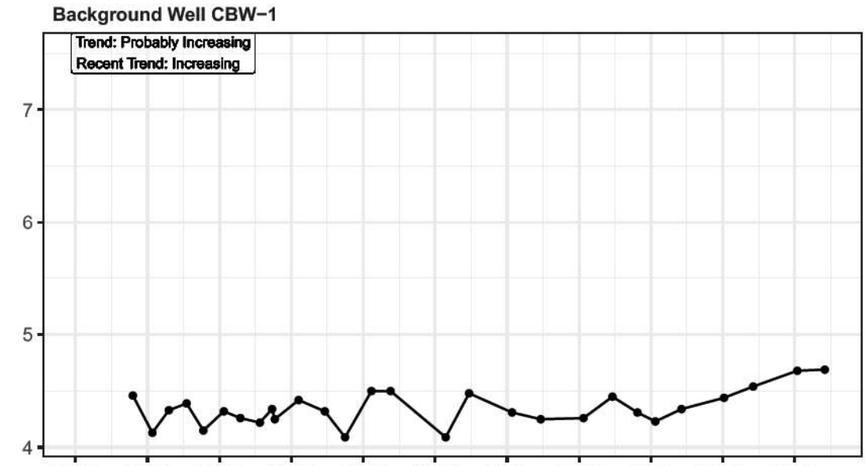


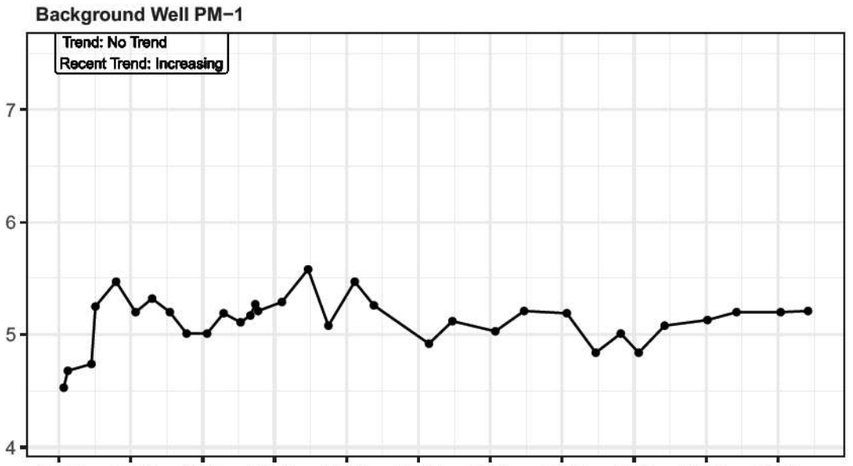


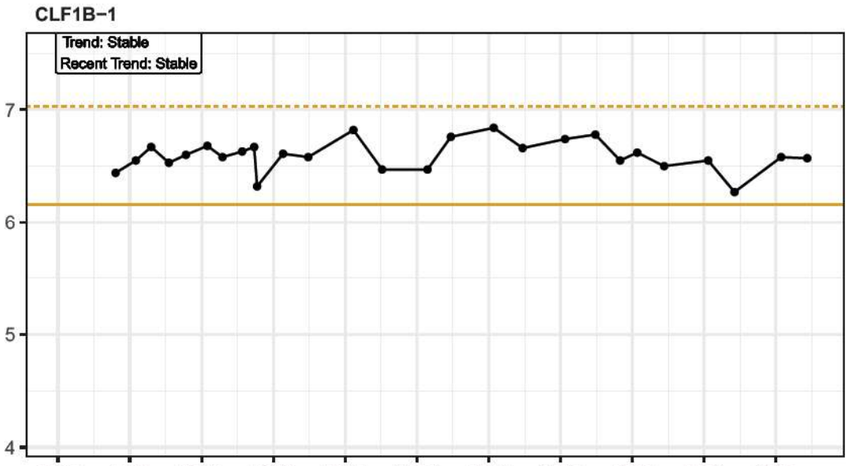
Detection Status: ● Detect ○ Non−Detect — Upper Prediction Limit

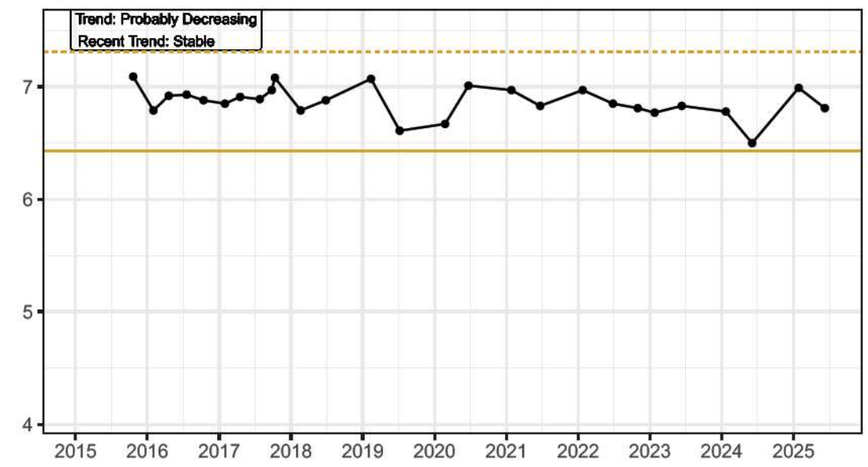
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

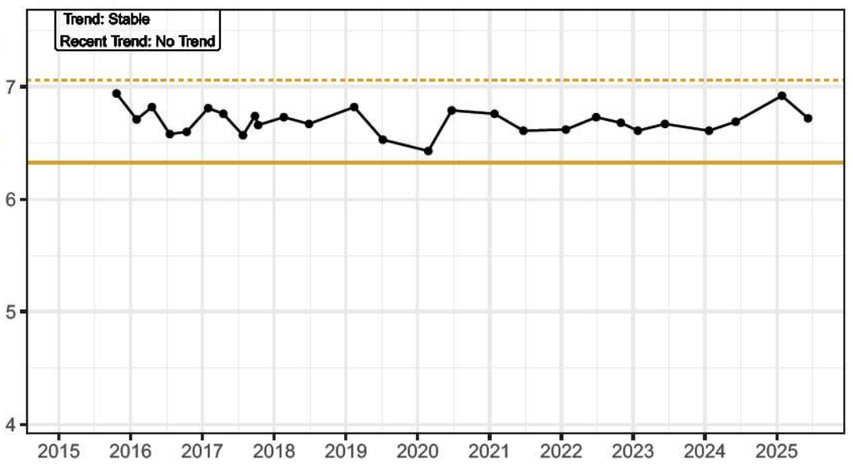
Trend Plots for pH, Field

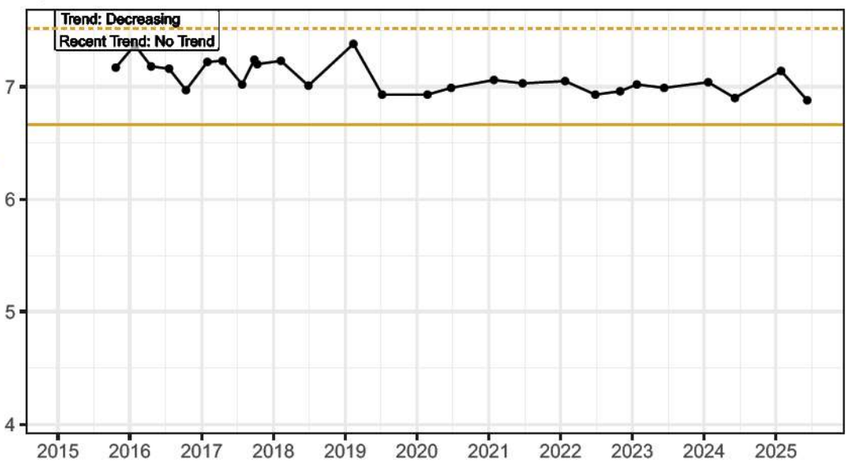


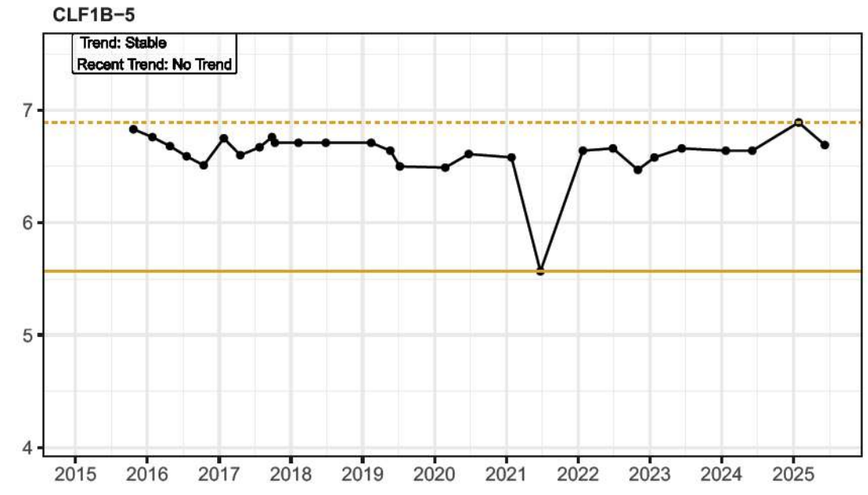








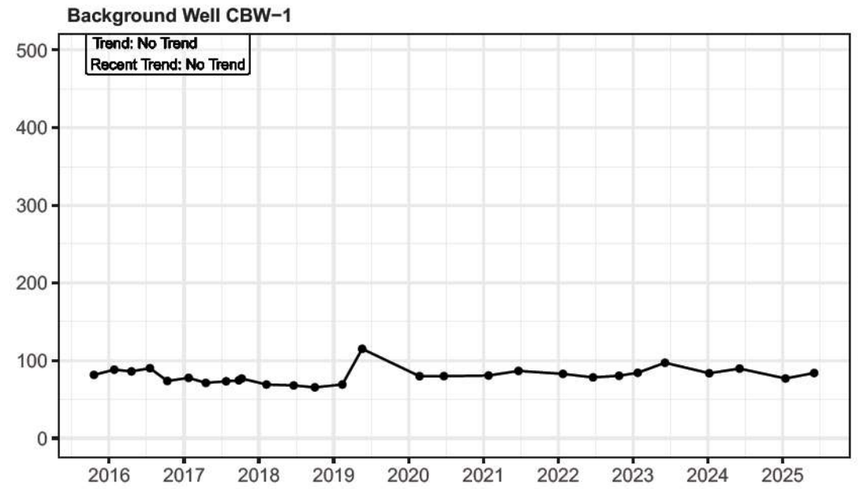


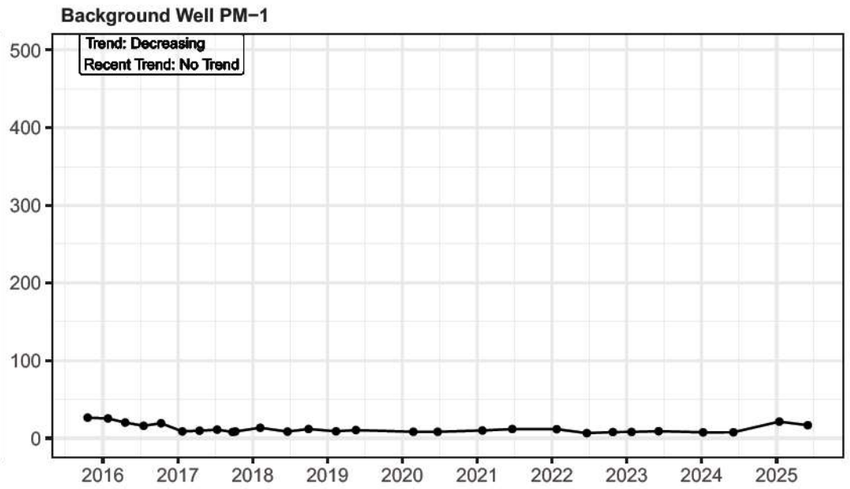


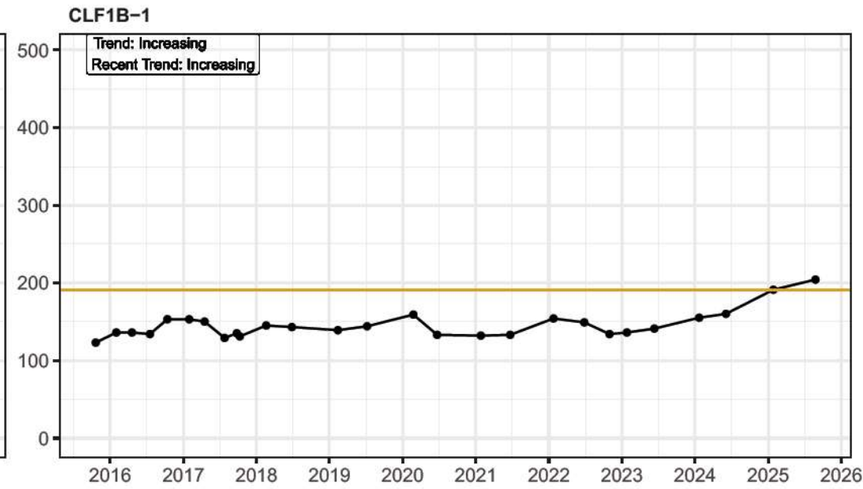
linetype — Lower Prediction Limit - - - Upper Prediction Limit Detection Status: ● Detect

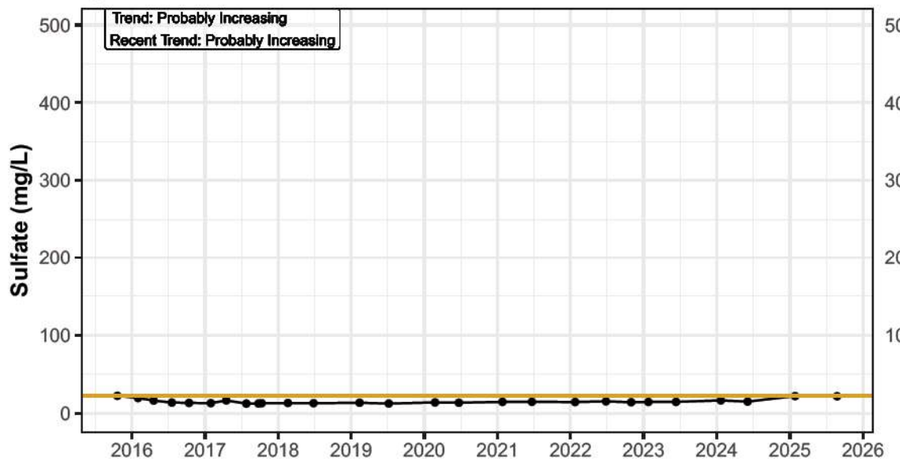
Notes: *Recent data are considered the 12 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

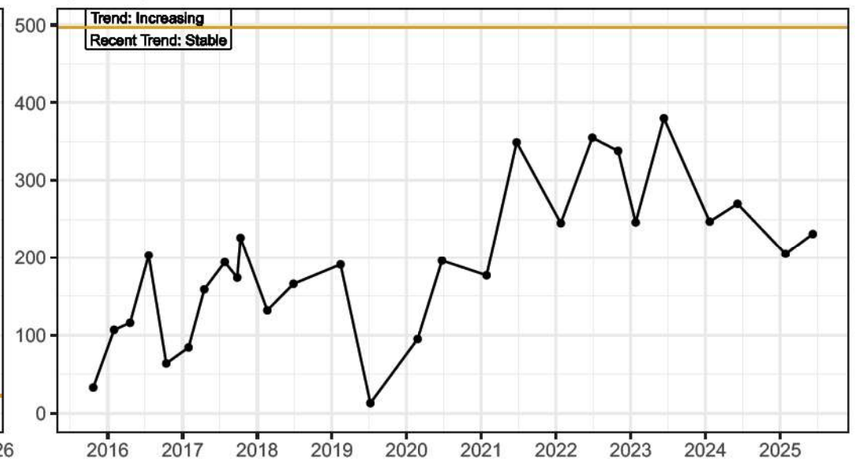
Trend Plots for Sulfate

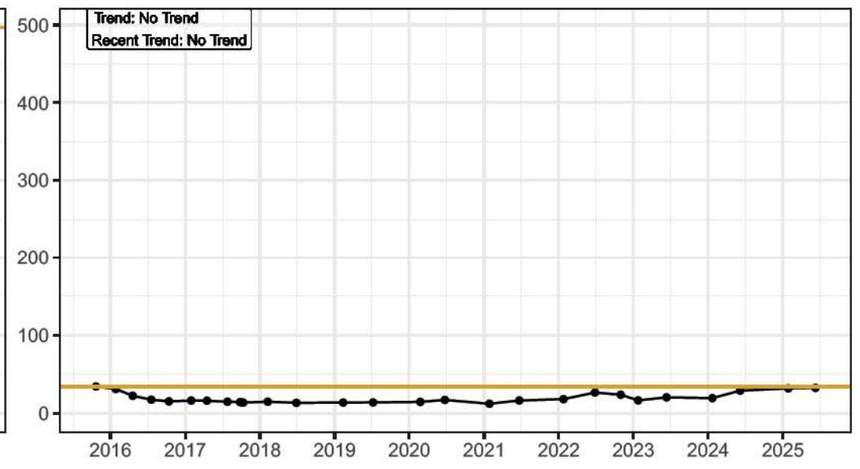


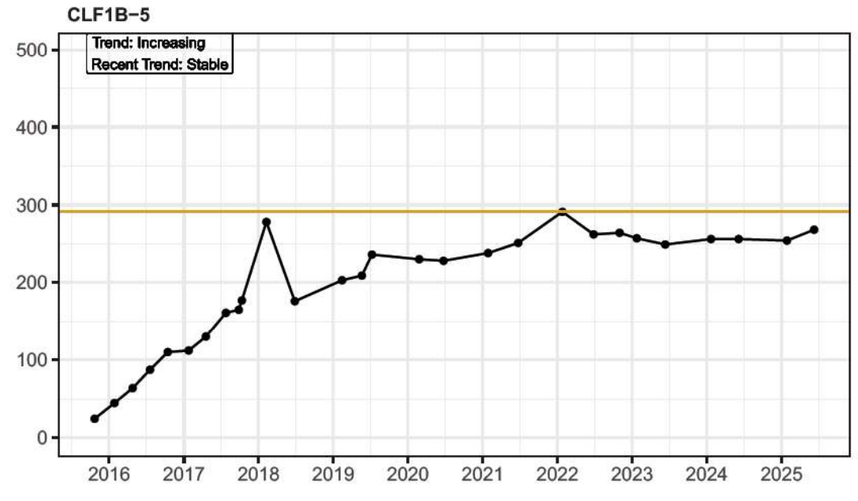








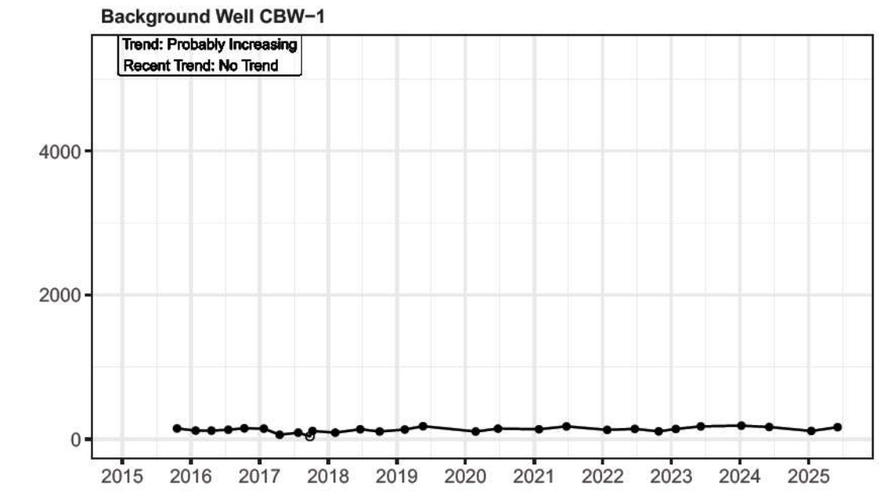


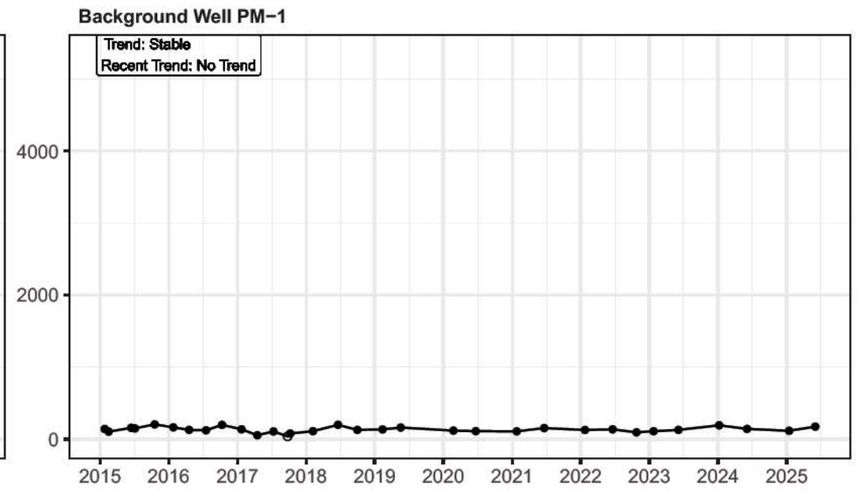


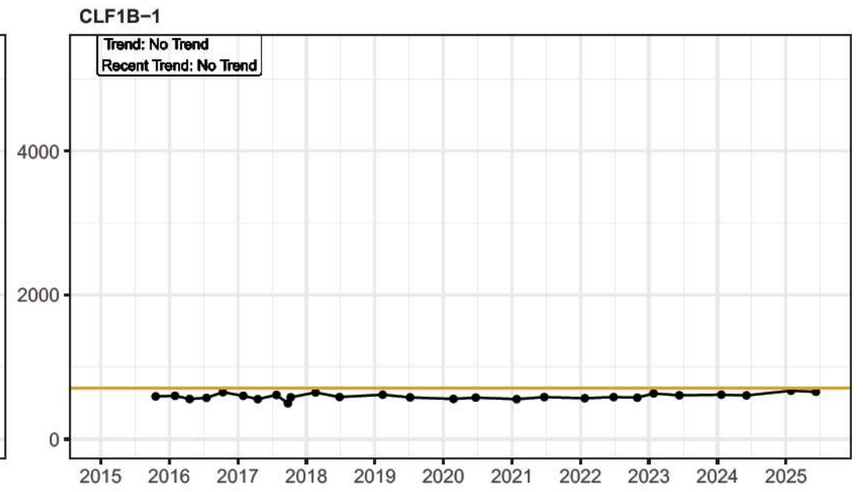
Upper Prediction Limit Detection Status: ● Detect

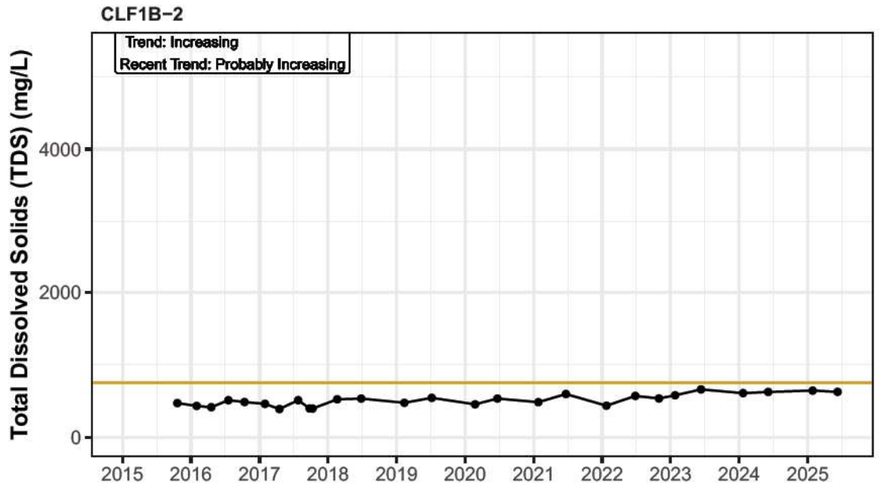
Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

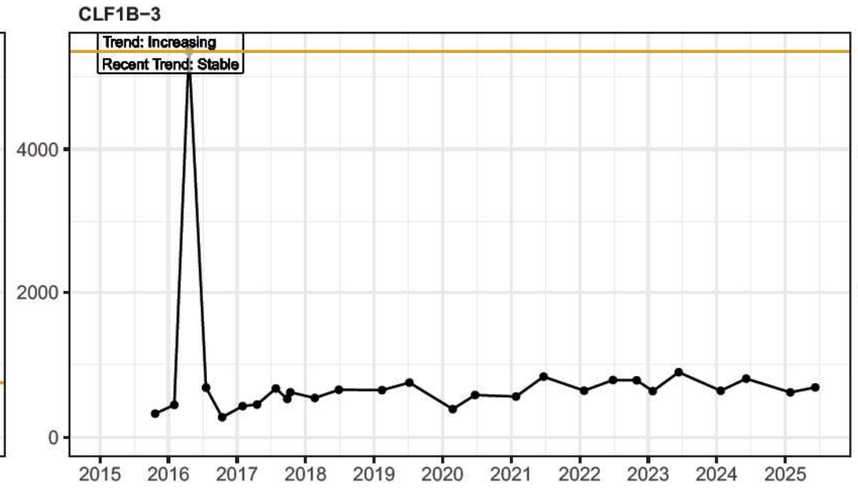
Trend Plots for Total Dissolved Solids (TDS)

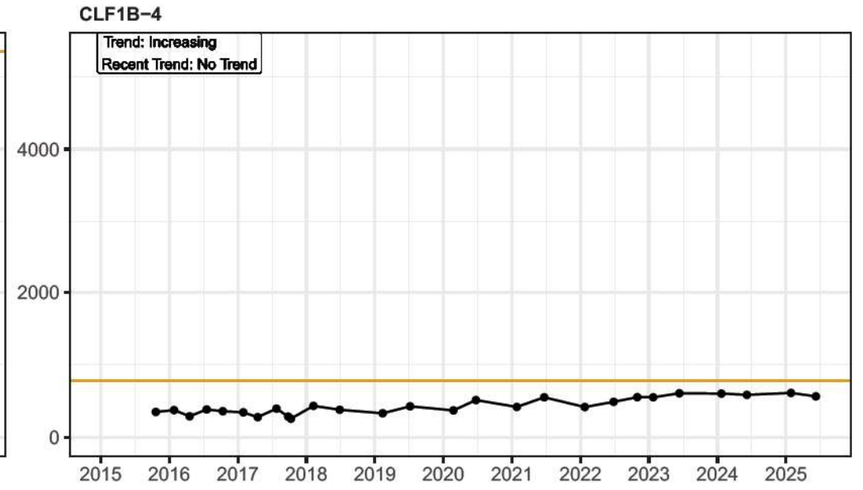


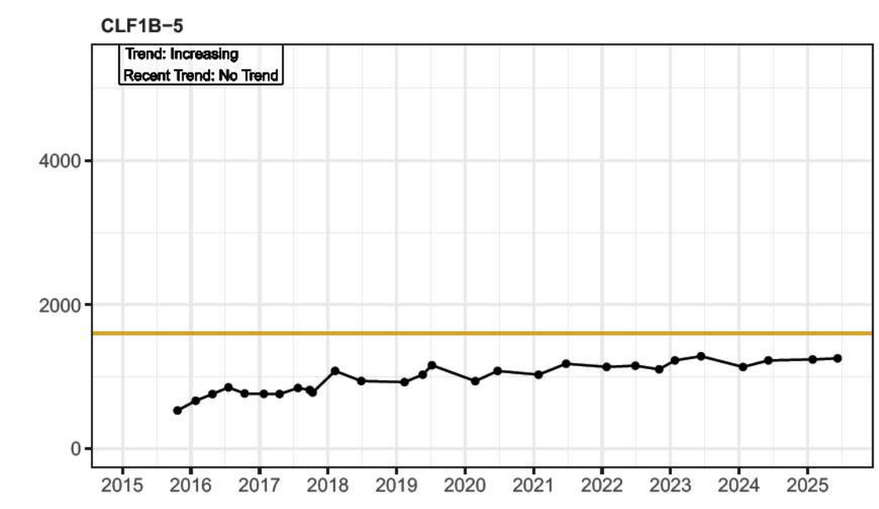












Detection Status: ● Detect ○ Non−Detect — Upper Prediction Limit

Notes: *Recent data are considered the 8 most recent data points collected for each well/analyte.
Trend classifications are based on Aziz (2003) guidance for Mann Kendall trend test results.

Appendix B – Laboratory Analytical Results

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21205 **Location:** GW Well PM-1 **Date:** 01/14/2025 **Sample Collector:** MDG/DCA

Loc. Code PM-1 **Time:** 10:19

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Barium	84.0	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Beryllium	<0.5	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Calcium	16.4	mg/L	02/03/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Cobalt	1.6	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Iron	9560	ug/L	02/04/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Antimony	5.6	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Thallium	<1.0	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Zinc	10.5	ug/L	02/03/2025	SKJACOBS	EPA 6020B
Boron	12.5	ug/L	01/29/2025	SKJACOBS	EPA 6010D
Lithium	5.05	ug/L	01/29/2025	SKJACOBS	EPA 6010D
Molybdenum	<5.0	ug/L	01/29/2025	SKJACOBS	EPA 6010D
Mercury	<0.2	ug/L	02/04/2025	EUROFINS SAV	EPA 7470
Total Organic Carbon	6.14	mg/L	01/21/2025	GEL	SM 5310B
Fluoride	<0.1	mg/L	01/18/2025	GEL	EPA 300.0
Chloride	11.7	mg/L	01/18/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.07	mg/L	01/18/2025	GEL	EPA 353.2
Sulfate	21.4	mg/L	01/18/2025	GEL	EPA 300.0
Total Dissolved Solids	117.5	mg/L	01/16/2025	SKJACOBS	SM 2540C
Radium 226	0.421	pCi/L	02/11/2025	GEL	EPA 903.1 Mod
Radium 228	0.273	pCi/L	02/14/2025	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.694	pCi/L	02/11/2025	GEL	EPA 903.1 Mod
pH	5.20	SU	01/14/2025	MDG/DCA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 4/11/25

Linda Williams - Manager Analytical Services

Authorized Signature Only- Not Valid Unless Signed

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21166 **Location:** GW Well CBW-1 **Date:** 01/14/2025 **Sample Collector:** MDG/DCA

Loc. Code CBW-1 **Time:** 11:54

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	01/30/2025	SKJACOBS	EPA 6020B
Barium	38.3	ug/L	01/30/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	01/30/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	01/30/2025	SKJACOBS	EPA 6020B
Iron	<50.0	ug/L	01/30/2025	SKJACOBS	EPA 6020B
Lead	2.0	ug/L	01/30/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/07/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	02/07/2025	SKJACOBS	EPA 6020B
Cobalt	0.83	ug/L	01/30/2025	SKJACOBS	EPA 6020B
Boron	21.9	ug/L	01/28/2025	AMSTOCKH	EPA 6010D
Total Organic Carbon	1.98	mg/L	01/21/2025	GEL	SM 5310B
Chloride	3.46	mg/L	01/18/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	0.671	mg/L	01/20/2025	GEL	EPA 353.2
Sulfate	76.9	mg/L	01/18/2025	GEL	EPA 300.0
Total Dissolved Solids	115.0	mg/L	01/16/2025	SKJACOBS	SM 2540C
pH	4.68	SU	01/14/2025	MDG/DCA	

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010

Sample Validated: Linda Williams - Manager, Analytical Services

Final Validation Date: 4/10/25

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21198 **Location:** GW Well CLF1B-1 **Date:** 01/27/2025 **Sample Collector:** MDG/ATH

Loc. Code CLF1B-1 **Time:** 09:19

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Barium	132	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Iron	<50.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Zinc	14.3	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Cobalt	2.2	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Boron	16.1	ug/L	02/11/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	2.36	mg/L	02/03/2025	GEL	SM 5310B
Chloride	29.4	mg/L	02/03/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.1	mg/l	02/03/2025	SUB_GEL	EPA 353.2
Sulfate	191	mg/L	02/03/2025	GEL	EPA 300.0
Total Dissolved Solids	672.5	mg/L	02/05/2025	SJLEVY	SM 2540C
Arsenic Dissolved	<5.0	ug/L	02/11/2025	SKJACOBS	EPA 6020B
pH	6.58	SU	01/27/2025	MDG/ATH	

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010

Sample Validated: _____ Final Validation Date: 4/10/25

Linda Williams - Manager, Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21199 **Location:** GW Well CLF1B-1 **Date:** 01/27/2025 **Sample Collector:** MDG/ATH

Loc. Code CLF1B-1 DUP **Time:** 09:24

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Barium	133	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Iron	<50.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Cobalt	2.1	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Boron	16.7	ug/L	02/11/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	2.62	mg/L	02/03/2025	GEL	SM 5310B
Chloride	29.3	mg/L	02/03/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.1	mg/l	02/03/2025	SUB_GEL	EPA 353.2
Sulfate	190	mg/L	02/03/2025	GEL	EPA 300.0
Total Dissolved Solids	692.5	mg/L	02/05/2025	SJLEVY	SM 2540C
Arsenic Dissolved	<5.0	ug/L	02/11/2025	SKJACOBS	EPA 6020B

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010

Sample Validated: Linda Williams - Manager, Analytical Services

Final Validation Date: 4/10/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21200 **Location:** GW Well CLF1B-2 **Date:** 01/27/2025 **Sample Collector:** MDG/ATH

Loc. Code CLF1B-2 **Time:** 10:39

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Barium	194	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Iron	108	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Zinc	12.5	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Cobalt	2.3	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Boron	27.9	ug/L	02/11/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	1.36	mg/L	02/03/2025	GEL	SM 5310B
Chloride	93.9	mg/L	02/03/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.1	mg/l	02/03/2025	SUB_GEL	EPA 353.2
Sulfate	22.0	mg/L	02/03/2025	GEL	EPA 300.0
Total Dissolved Solids	645.0	mg/L	02/05/2025	SJLEVY	SM 2540C
Arsenic Dissolved	<5.0	ug/L	02/11/2025	SKJACOBS	EPA 6020B
pH	6.99	SU	01/27/2025	MDG/ATH	

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010

Sample Validated: Linda Williams - Manager, Analytical Services

Final Validation Date: 4/10/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21201 **Location:** GW Well CLF1B-3 **Date:** 01/27/2025 **Sample Collector:** MDG/ATH

Loc. Code CLF1B-3 **Time:** 12:12

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Barium	58.9	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Iron	1900	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Zinc	20.8	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Cobalt	6.7	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Boron	101	ug/L	02/11/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	2.25	mg/L	02/04/2025	GEL	SM 5310B
Chloride	22.5	mg/L	02/03/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.1	mg/l	02/03/2025	SUB_GEL	EPA 353.2
Sulfate	205	mg/L	02/03/2025	GEL	EPA 300.0
Total Dissolved Solids	620.0	mg/L	02/05/2025	SJLEVY	SM 2540C
Arsenic Dissolved	<5.0	ug/L	02/11/2025	SKJACOBS	EPA 6020B
pH	6.92	SU	01/27/2025	MDG/ATH	

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010

Sample Validated: Linda Williams - Manager, Analytical Services

Final Validation Date: 4/10/25

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21202 **Location:** GW Well CLF1B-4 **Date:** 01/27/2025 **Sample Collector:** MDG/ATH

Loc. Code CLF1B-4 **Time:** 13:35

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Barium	62.6	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Iron	<50.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Cobalt	<0.5	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Boron	29.8	ug/L	02/11/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	1.63	mg/L	02/04/2025	GEL	SM 5310B
Chloride	93.3	mg/L	02/03/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.1	mg/l	02/03/2025	SUB_GEL	EPA 353.2
Sulfate	31.9	mg/L	02/03/2025	GEL	EPA 300.0
Total Dissolved Solids	612.5	mg/L	02/05/2025	SJLEVY	SM 2540C
Arsenic Dissolved	<5.0	ug/L	02/11/2025	SKJACOBS	EPA 6020B
pH	7.14	SU	01/27/2025	MDG/ATH	

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010

Sample Validated: Linda Williams - Manager, Analytical Services

Final Validation Date: 4/10/25

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG21203 **Location:** GW Well CLF1B-5 **Date:** 01/27/2025 **Sample Collector:** MDG/ATH

Loc. Code CLF1B-5 **Time:** 14:54

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Barium	115	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Iron	948	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	02/12/2025	SKJACOBS	EPA 6020B
Cobalt	1.7	ug/L	02/13/2025	SKJACOBS	EPA 6020B
Boron	29.5	ug/L	02/11/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	1.69	mg/L	02/04/2025	GEL	SM 5310B
Chloride	167	mg/L	02/03/2025	GEL	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.1	mg/l	02/03/2025	SUB_GEL	EPA 353.2
Sulfate	254	mg/L	02/03/2025	GEL	EPA 300.0
Total Dissolved Solids	1235	mg/L	02/05/2025	SJLEVY	SM 2540C
Arsenic Dissolved	<5.0	ug/L	02/11/2025	SKJACOBS	EPA 6020B
pH	6.89	SU	01/27/2025	MDG/ATH	

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010

Sample Validated: Linda Williams - Manager, Analytical Services

Final Validation Date: 4/10/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG34934 **Location:** GW Well PM-1 **Date:** 06/02/2025 **Sample Collector:** AGP/EA

Loc. Code PM-1 **Time:** 10:34

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Barium	86.9	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Beryllium	<0.5	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Calcium	20.3	mg/L	06/10/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Cobalt	1.7	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Iron	11100	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Antimony	5.7	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Thallium	<1.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Boron	13.4	ug/L	06/11/2025	SKJACOBS	EPA 6010D
Lithium	<5.0	ug/L	06/11/2025	SKJACOBS	EPA 6010D
Molybdenum	<5.0	ug/L	06/11/2025	SKJACOBS	EPA 6010D
Mercury	<0.2	ug/L	06/12/2025	EUROFINS ATL	EPA 7470
Total Organic Carbon	5.36	mg/L	06/13/2025	GEL	SM 5310B
Fluoride	<0.10	mg/L	06/04/2025	AMSTOCKH	EPA 300.0
Chloride	11.2	mg/L	06/13/2025	AMSTOCKH	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.07	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	16.8	mg/L	06/13/2025	AMSTOCKH	EPA 300.0
Total Dissolved Solids	175.0	mg/L	06/06/2025	GJKOCENI	SM 2540C
Radium 226	0.481	pCi/L	06/24/2025	GEL	EPA 903.1 Mod
Radium 228	0.735	pCi/L	06/26/2025	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.22	pCi/L	07/14/2025	SJLEVY	EPA 903.1 Mod
pH	5.21	SU	06/02/2025	AGP/EA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

Linda Williams - Manager Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG34895 **Location:** GW Well CBW-1 **Date:** 06/03/2025 **Sample Collector:** AGP/EA

Loc. Code CBW-1 **Time:** 10:21

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Barium	37.9	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Cobalt	1.1	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Iron	166	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Lead	2.4	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Zinc	13.7	ug/L	06/10/2025	SKJACOBS	EPA 6020B
Boron	21.2	ug/L	06/11/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	1.23	mg/L	06/13/2025	GEL	SM 5310B
Chloride	3.65	mg/L	06/13/2025	AMSTOCKH	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	1.76	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	83.9	mg/L	06/13/2025	AMSTOCKH	EPA 300.0
Total Dissolved Solids	167.5	mg/L	06/06/2025	GJKOCENI	SM 2540C
pH	4.69	SU	06/03/2025	AGP/EA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG34919 **Location:** GW Well CLF1B-1 **Date:** 06/09/2025 **Sample Collector:** AGP/EA

Loc. Code CLF1B-1 **Time:** 09:17

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Arsenic Dissolved	<5.0	ug/L	06/16/2025	SKJACOBS	EPA 6020B
Barium	127	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cobalt	3.8	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Iron	134	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Boron	15.2	ug/L	06/13/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	2.03	mg/L	06/19/2025	GEL	SM 5310B
Fluoride	<0.10	mg/L	06/19/2025	RWMIMS	EPA 300.0
Chloride	32.1	mg/L	06/19/2025	RWMIMS	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.2	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	193	mg/L	06/19/2025	RWMIMS	EPA 300.0
Total Dissolved Solids	657.5	mg/L	06/10/2025	JRLOTITO	SM 2540C
pH	6.57	SU	06/09/2025	AGP/EA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

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LAB CERTIFICATION #08552

Sample # AG34920 **Location:** GW Well CLF1B-1 **Date:** 06/09/2025 **Sample Collector:** AGP/EA

Loc. Code CLF1B-1 DUP **Time:** 09:22

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Arsenic Dissolved	<5.0	ug/L	06/16/2025	SKJACOBS	EPA 6020B
Barium	125	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cobalt	3.6	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Iron	133	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Boron	15.2	ug/L	06/13/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	2.04	mg/L	06/19/2025	GEL	SM 5310B
Fluoride	<0.10	mg/L	06/19/2025	RWMIMS	EPA 300.0
Chloride	32.5	mg/L	06/19/2025	RWMIMS	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.2	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	190	mg/L	06/19/2025	RWMIMS	EPA 300.0
Total Dissolved Solids	647.5	mg/L	06/10/2025	JRLOTITO	SM 2540C

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG34921 **Location:** GW Well CLF1B-2 **Date:** 06/09/2025 **Sample Collector:** AGP/EA

Loc. Code CLF1B-2 **Time:** 10:20

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Arsenic Dissolved	<5.0	ug/L	06/16/2025	SKJACOBS	EPA 6020B
Barium	182	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cobalt	3.9	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Iron	406	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Boron	27.3	ug/L	06/13/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	<1.00	mg/L	06/19/2025	GEL	SM 5310B
Fluoride	<0.10	mg/L	06/19/2025	RWMIMS	EPA 300.0
Chloride	97.6	mg/L	06/19/2025	RWMIMS	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.2	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	22.7	mg/L	06/19/2025	RWMIMS	EPA 300.0
Total Dissolved Solids	627.5	mg/L	06/10/2025	JRLOTITO	SM 2540C
pH	6.81	SU	06/09/2025	AGP/EA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG34922 **Location:** GW Well CLF1B-3 **Date:** 06/09/2025 **Sample Collector:** AGP/EA

Loc. Code CLF1B-3 **Time:** 11:43

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Arsenic Dissolved	<5.0	ug/L	06/16/2025	SKJACOBS	EPA 6020B
Barium	66.1	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cobalt	6.1	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Iron	3210	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Boron	98.9	ug/L	06/13/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	1.91	mg/L	06/19/2025	GEL	SM 5310B
Fluoride	0.11	mg/L	06/19/2025	RWMIMS	EPA 300.0
Chloride	37.3	mg/L	06/19/2025	RWMIMS	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.2	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	231	mg/L	06/19/2025	RWMIMS	EPA 300.0
Total Dissolved Solids	690.0	mg/L	06/10/2025	JRLOTITO	SM 2540C
pH	6.72	SU	06/09/2025	AGP/EA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG34923 **Location:** GW Well CLF1B-4 **Date:** 06/09/2025 **Sample Collector:** AGP/EA

Loc. Code CLF1B-4 **Time:** 12:51

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Arsenic Dissolved	<5.0	ug/L	06/16/2025	SKJACOBS	EPA 6020B
Barium	63.3	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cobalt	<0.5	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Iron	<50.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Boron	30.9	ug/L	06/13/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	<1.00	mg/L	06/19/2025	GEL	SM 5310B
Fluoride	<0.10	mg/L	06/19/2025	RWMIMS	EPA 300.0
Chloride	95.6	mg/L	06/19/2025	RWMIMS	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.2	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	32.6	mg/L	06/19/2025	RWMIMS	EPA 300.0
Total Dissolved Solids	565.0	mg/L	06/10/2025	JRLOTITO	SM 2540C
pH	6.88	SU	06/09/2025	AGP/EA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG34924 **Location:** GW Well CLF1B-5 **Date:** 06/09/2025 **Sample Collector:** AGP/EA

Loc. Code CLF1B-5 **Time:** 13:37

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Arsenic Dissolved	<5.0	ug/L	06/16/2025	SKJACOBS	EPA 6020B
Barium	119	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cadmium	<0.5	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Cobalt	4.4	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Chromium	<5.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Iron	2550	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Lead	<1.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Selenium	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Zinc	<10.0	ug/L	06/17/2025	SKJACOBS	EPA 6020B
Boron	30.2	ug/L	06/13/2025	SKJACOBS	EPA 6010D
Total Organic Carbon	1.40	mg/L	06/19/2025	GEL	SM 5310B
Fluoride	<0.10	mg/L	06/19/2025	RWMIMS	EPA 300.0
Chloride	179	mg/L	06/19/2025	RWMIMS	EPA 300.0
Nitrate-Nitrite Cadmium Reduction	<0.2	mg/L	06/18/2025	GEL	EPA 353.2
Sulfate	268	mg/L	06/19/2025	RWMIMS	EPA 300.0
Total Dissolved Solids	1250	mg/L	06/10/2025	JRLOTITO	SM 2540C
pH	6.69	SU	06/09/2025	AGP/EA	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117 ; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Validation date: 8/1/25

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG44379 **Location Description:** **Date:** 08/25/2025 **Time:** 11:10

Loc. Code CLF1B-1 **Sample Collector:** WJK/CG

Analysis	Result	Units	Date Analyzed	Analyst	Method
Sulfate	204	mg/L	09/02/2025	RWMIMS	EPA 300.0

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID# 10120; "Eurofins" - Eurofins. - Lab ID# 98001; "Pace"- Pace Analytical Services, LLC.- Lab ID# 9801101

Qualifiers: **U**-Value below RL; **H**-Holding Time Exceeded; **J**-Value is Estimated; **M**-Matrix Interference; **F1**-MS and/or MSD failure

Analysis Validated: 9/4/25

Linda Williams - Laboratory Director & Manager Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG44380 **Location Description:** DUP **Date:** 08/25/2025 **Time:** 11:15

Loc. Code CLF1B-1 **Sample Collector:** WJK/CG

Analysis	Result	Units	Date Analyzed	Analyst	Method
Sulfate	200	mg/L	09/02/2025	RWMIMS	EPA 300.0

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID# 10120; "Eurofins" - Eurofins. - Lab ID# 98001; "Pace"- Pace Analytical Services, LLC.- Lab ID# 9801101

Qualifiers: U-Value below RL; **H**-Holding Time Exceeded; **J**-Value is Estimated; **M**-Matrix Interference; **F1**-MS and/or MSD failure

Analysis Validated: 9/4/25

Linda Williams - Laboratory Director & Manager Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AG44381 **Location Description:** **Date:** 08/25/2025 **Time:** 12:34

Loc. Code CLF1B-2 **Sample Collector:** WJK/CG

Analysis	Result	Units	Date Analyzed	Analyst	Method
Sulfate	21.8	mg/L	09/02/2025	RWMIMS	EPA 300.0

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID# 10120; "Eurofins" - Eurofins. - Lab ID# 98001; "Pace"- Pace Analytical Services, LLC.- Lab ID# 9801101

Qualifiers: **U**-Value below RL; **H**-Holding Time Exceded; **J**-Value is Estimated; **M**-Matrix Interference; **F1**-MS and/or MSD failure

Analysis Validated: 9/4/25

Linda Williams - Laboratory Director & Manager Analytical Services

Certificate Not Valid Unless Signed By Authorized Personnel

Chain of Custody

Cross
Background
NPDES/CCR/LF

(Background wells
CBW-1 and PM-1)

santee cooper

Customer/Send Report To: Melanie Goings/A203

Need Results By (Date Needed): 3 weeks

Project/Task/Unit # ~~121567~~ JM02.09.G01 / 36500

Contract Lab Due Date (Lab Only) :

TAG21205

Labworks ID Number	Sample Location / Description	Collection Date	Collection Time	By	Grab/Comp	Matrix	Number of Containers	Sample Analysis Requested (Method): As, Ba, Be, Ca, Cd, Co, Cr, Pb, Fe, Sb, Se, Tl, Zn**	B, Li, Mo, Hg	TOC	F, Cl, NO3, SO4 TDS	Ra 226, Ra 228
Preservative								1	1	1/3	1	1/2
Bottle Type (Glass/Plastic)								P	P	G	P	P
~~AG21071~~ MDG	PM-1	1/14/25	1019	MDG/DLA	G	GW	9	2	1	1	3	2
~~AG21072~~ MDG	CBW-1	↓	1154	↓	G	GW	9	2	1	1	3	2
AG21166												

Fill in the Number of Containers for each Test

Temperature Checks: Internal Use Only

TEMP (°C)	INIT
0.5	TH

Comments

Lot # GFS 24004929
Batch # 052024-1 (TH)
1:1 Sulfuric Acid (H2SO4)
santee cooper 1/15/25@0800

Lot # 1123070
Batch # 20240220-01 (TH)
1:1 Nitric Acid (HNO3)
santee cooper 1/15/25@0802

Matrix Code: GW-Groundwater, DW-Drinking Water, SW-Surface Water, WW-Wastewater, BW-Boiler Water, L-Limestone, O-Oil, S-Soil, SL-Solid, C-Coal, G-Gypsum, FA-Fly Ash, BA-Bottom Ash, M-Misc (Describe in Comments)

Preservation used: 1-<4°C, 2-HNO_3, 3-H_2SO_4, 4-HCl, 5-$Na_2S_2O_3$, 6-Other (Specify)

Bottle Type: (G) Glass (P) Plastic

Sample Type: (G) Grab, (C) Composite

Composite Samples:

Start Date/Time:

End Date/Time:

Preservative Record Correct pH: RAD (Yes) No If preserved, Lot# 235816/1107801J Date/Time/Int GEL 1/10/25

Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Melanie Goings	32927	1/15/25	0749	[signature]	36851	1/15/25	0749
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time

Available Analyses:

TOC / DOC
TP, TPO4, NH3-N
F, Cl, NO2, Br, NO3, SO4, OPO4
TDS, TSS
Sulfide
BTEX, Napthalene, MTBE, VOC
Rad 226, Rad 228
Oil & Grease
E.coli, Total Coliform

Metals: Ag, Al, As, B, Be, Ba, Ca, Cd, Co, Cr Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb Se, Sn, Tl, V, Zn, P, S, SiO2, Sr, Ti, CrVI

Dissolved Metals: As, Fe

pH

Wallboard Gyp: AIM, TOC, Total and Soluble Metals, Purity, % Moisture, Sulfites, pH, Chloride, Particle Size
Daily Gyp: Free Moisture, Purity (CaSO4)
Limestone Analysis: Acid Insoluble Matter, Total Metals, LOI, Purity (CaCO3), % Moisture
Flyash: Ammonia, LOI, % Carbon, Free CaO, Mineral Analysis

Coal Short Prox: % Moisture, Ash, Sulfur, BTUs
Coal Ultimate: % Moisture, Ash, Sulfur, BTUs , Volatile Matter, CHN
XRF Scan Hardgrove Grindability Index
Sieve Analysis Pulverizer Fineness Particulate Matter Analysis

Oil Quality: % Moisture, Color, Acidity
Dielectric Strength, Interfacial Tension
Density
Togas: Dissolved Gases in Oil
Metals (Oil): As, Cd, Cr, Ni, Pb, Hg
Flash point, Total Halogens, PCB
Gofer Oil:#GOFER **Used Oil:**#USED OIL

TOC APC1449 221124000/4GF1097 GEL 1/10/25

Cross
CCR/Class 3 LF

(CLF1B-1, CLF1B-2, CLF1B-3, CLF1B-4, CLF1B-5 and Duplicate CLF1B-1)

santee cooper

Chain of Custody

Customer/Send Report To: Melanie Goings/A203

Need Results By (Date Needed): 3 Weeks

Project/Task/Unit # 125915 JM02.09.G01.1 / 36500

Contract Lab Due Date (Lab Only) :

Labworks ID Number	Sample Location / Description	Collection Date	Collection Time	Collection By	Sample Type: Grab/Comp	Sample Type: Matrix	Number of Containers	Sample Analysis Requested (Method): Preservative	Bottle Type (Glass/Plastic)	Fill in the Number of Containers for each Test: As, Ba, Ca, Cd, Co, Cr, Fe, Pb, Se, Zn	B	TOC	F, Cl, NO3, SO4	TDS	dissolved As	Comments
								1	10	1,3	1	1	1			
								P	SJL	G	P	P	P			
AG21198	CLF1B-1	1/27/25	919	MDG ATH	G	GW	6	1	[illegible]	1	2	1	1			*only 2 red bottles
AG21199	CLF1B-1Dup		924		G	GW	6	1		1	2	1	1			- NO BACKUP METALS BOTTLE
AG21200	CLF1B-2		1039		G	GW	6	1		1	2	1	1			Lot # GFS 24004929
AG21201	CLF1B-3		1212		G	GW	6	1		1	2	1	1			Batch # 052024-1
AG21202	CLF1B-4		1335		G	GW	6	1		1	2	1	1			1:1 Sulfuric Acid (H2SO4)
AG21203	CLF1B-5		1454		G	GW	6	1		1	2	1	1			1/28/25 @ 1049 SJL santee cooper
~~AG21204~~	~~CLF1B-5D~~		1535		G	GW	6	1		1	2	1	1			Lot # 1123070
	ATH 1/28/25 0825															Batch # 20240220-01
																1:1 Nitric Acid (HNO3)
																1/28/25 @ 1240 SJL santee cooper
																MOVED TO CORRECT CHAIN. SJL 1/28
																FILTERED IN LAB. SJL

Temperature Checks: Internal Use Only

TEMP (°C)	INIT
4.3	SJL

Matrix Code: GW-Groundwater, DW-Drinking Water, SW-Surface Water, WW-Wastewater, BW-Boiler Water, L-Limestone, O-Oil, S-Soil, SL-Solid, C-Coal, G-Gypsum, FA-Fly Ash, BA-Bottom Ash, M-Misc (Describe in Comments)

Preservation used: 1-<4°C, 2-HNO_3, 3-H_2SO_4, 4-HCl, 5-$Na_2S_2O_3$, 6-Other (Specify)

Bottle Type: (G) Glass (P) Plastic

Sample Type: (G) Grab, (C) Composite

Composite Samples:

Start Date/Time:

End Date/Time:

Preservative Record Correct pH: TOC (Yes) No If preserved, Lot# 22124000/4GF 1097 Date/Time/Int GEL 1/10/25

Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
[signature]	36887	1/28/25	0755	Sheny	35594	1/28/25	0755
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time

Available Analyses:

TOC / DOC
TP, TPO4, NH3-N
F, Cl, NO2, Br, NO3, SO4, OPO4
TDS, TSS
Sulfide
BTEX, Napthalene, MTBE, VOC
Rad 226, Rad 228
Oil & Grease
E.coli, Total Coliform

Metals: Ag, Al, As, B, Be, Ba, Ca, Cd, Co, Cr Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb Se, Sn, Tl, V, Zn, P, S, SiO2, Sr, Ti, CrVI

Dissolved Metals: As, Fe

pH

Wallboard Gyp: AIM, TOC, Total and Soluble Metals, Purity, % Moisture, Sulfites, pH, Chloride, Particle Size
Daily Gyp: Free Moisture, Purity (CaSO4)
Limestone Analysis: Acid Insoluble Matter, Total Metals, LOI, Purity (CaCO3), % Moisture
Flyash: Ammonia, LOI, % Carbon, Free CaO, Mineral Analysis

Coal Short Prox: % Moisture, Ash, Sulfur, BTUs
Coal Ultimate: % Moisture, Ash, Sulfur, BTUs , Volatile Matter, CHN
XRF Scan Hardgrove Grindability Index
Sieve Analysis Pulverizer Fineness Particulate Matter Analysis

Oil Quality: % Moisture, Color, Acidity Dielectric Strength, Interfacial Tension Density
Togas: Dissolved Gases in Oil
Metals (Oil): As, Cd, Cr, Ni, Pb, Hg
Flash point, Total Halogens, PCB
Gofer Oil:#GOFER **Used Oil:**#USED OIL

RAD 235816/011.7801J GEL 1/10/25

santee cooper

Chain of Custody

Cross
Background
NPDES/CCR/LF

(Background wells
CBW-1 and PM-1)

Customer/Send Report To: Melanie Goings/A203

Need Results By (Date Needed): 3 weeks

Project/Task/Unit # ~~121567~~ JM02.09.G01 / 36500
125915

Contract Lab Due Date (Lab Only) :

Labworks ID Number	Sample Location / Description	Collection Date	Collection Time	Collection By	Sample Type: Grab/Comp	Sample Type: Matrix	Number of Containers	Sample Analysis Requested (Method): As, Ba, Be, Ca, Cd, Co, Cr, Pb, Fe, Sb, Se, Tl, Zn** (Preservative: 1, Bottle Type: P)	B, Li, Mo, Hg (1, P)	TOC (1/3, G)	F, Cl, NO3, SO4 TDS (1, P)	Ra 226, Ra 228 (1/2, P)	Comments
								Fill in the Number of Containers for each Test					
AG34934	PM-1	6/2/25	1034	AGP/EA	G	GW	8	2	1	1	3	2	

Temperature Checks: Internal Use Only

TEMP (°C)	INIT
4.3	SJL

→ TO GEL

NO3/NO2
Lot # Thermo Sci U23K034
Batch # 20250213-1
1:1 Sulfuric Acid (H2SO4)
6/3/25 @ 0901 SJL

Spectrum Lot # 1124081
Batch # 20250213-01
1:1 Nitric Acid (HNO3)
6/3/24 @ 0900 SJL

Matrix Code: GW-Groundwater, DW-Drinking Water, SW-Surface Water, WW-Wastewater, BW-Boiler Water, L-Limestone, O-Oil, S-Soil, SL-Solid, C-Coal, G-Gypsum, FA-Fly Ash, BA-Bottom Ash, M-Misc (Describe in Comments)

Preservation used: 1-<4°C, 2-HNO_3, 3-H_2SO_4, 4-HCl, 5-$Na_2S_2O_3$, 6-Other (Specify)

Bottle Type: (G) Glass (P) Plastic

Sample Type: (G) Grab, (C) Composite

Composite Samples:

Start Date/Time:

End Date/Time:

Preservative Record	Correct pH: ~~TOC~~ (Yes) No	If preserved, Lot# 220325000/4G18944	Date/Time/Int GEL 5/28/25

Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Ashley Pick	38361	6/3/25	741	Sherry	35594	6/3/25	0741
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time

Available Analyses:

TOC / DOC
TP, TPO4, NH3-N
F, Cl, NO2, Br, NO3, SO4, OPO4
TDS, TSS
Sulfide
BTEX, Napthalene, MTBE, VOC
Rad 226, Rad 228
Oil & Grease
E.coli, Total Coliform

Metals: Ag, Al, As, B, Be, Ba, Ca, Cd, Co, Cr Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb Se, Sn, Tl, V, Zn, P, S, SiO2, Sr, Ti, CrVI

Dissolved Metals: As, Fe

pH

Wallboard Gyp: AIM, TOC, Total and Soluble Metals, Purity, % Moisture, Sulfites, pH, Chloride, Particle Size
Daily Gyp: Free Moisture, Purity (CaSO4)
Limestone Analysis: Acid Insoluble Matter, Total Metals, LOI, Purity (CaCO3), % Moisture
Flyash: Ammonia, LOI, % Carbon, Free CaO, Mineral Analysis

Coal Short Prox: % Moisture, Ash, Sulfur, BTUs
Coal Ultimate: % Moisture, Ash, Sulfur, BTUs , Volatile Matter, CHN
XRF Scan Hardgrove Grindability Index
Sieve Analysis Pulverizer Fineness Particulate Matter Analysis

Oil Quality: % Moisture, Color, Acidity Dielectric Strength, Interfacial Tension Density
Togas: Dissolved Gases in Oil
Metals (Oil): As, Cd, Cr, Ni, Pb, Hg Flash point, Total Halogens, PCB
Gofer Oil:#GOFER **Used Oil:**#USED OIL

RAD 243272/011780IJ GEL 5/28/25

santee cooper

Chain of Custody

Cross
Background
NPDES/CCR/LF

(Background wells
CBW-1 and PM-1)

Customer/Send Report To: Melanie Goings/A203

Need Results By (Date Needed): 3 weeks

Project/Task/Unit # ~~121567~~ JM02.09.G01 / 36500
125915

Contract Lab Due Date (Lab Only) : _____

Labworks ID Number	Sample Location / Description	Collection Date	Collection Time	Collection By	Sample Type Grab/Comp	Sample Type Matrix	Number of Containers	Sample Analysis Requested (Method)					
								1	1	1/3	1	1/2	
Preservative													
Bottle Type (Glass/Plastic)								P	P	G	P	P	
								As, Ba, Be, Ca, Cd, Co, Cr, Pb, Fe, Sb, Se, Tl, Zn**	B, Li, Mo, Hg	TOC	F, Cl, NO3, SO4 TDS	Ra 226, Ra 228	
								Fill in the Number of Containers for each Test					
AG34895	CBW-1	6/3/25	1021	AGP/EA	G	GW	ACD 89	2	1	1	3	2	
	~~EA~~ EA												

Temperature Checks: Internal Use Only

TEMP (°C)	INIT
0.6	TH

Comments

→ TOGEL
Lot # Thermo Sci U23K034
Batch # 20250213-1
1:1 Sulfuric Acid (H2SO4)
NO3/NO2
santee cooper TH 6/4/25 0754

Spectrum Lot # 1124081
Batch # 20250213-01
1:1 Nitric Acid (HNO3)
santee cooper JMG 6/4/25 0757

Matrix Code: **GW**-Groundwater, **DW**-Drinking Water, **SW**-Surface Water, **WW**-Wastewater, **BW**-Boiler Water, **L**-Limestone, **O**-Oil, **S**-Soil, **SL**-Solid, **C**-Coal, **G**-Gypsum, **FA**-Fly Ash, **BA**-Bottom Ash, **M**-Misc (Describe in Comments)

Preservation used: **1**-<4°C, **2**-HNO_3, **3**-H_2SO_4, **4**-HCl, **5**-$Na_2S_2O_3$, **6**-Other (Specify)

Bottle Type: (G) Glass (P) Plastic

Sample Type: (**G**) Grab, (C) Composite

Composite Samples:

Start Date/Time:

End Date/Time:

Preservative Record Correct pH: (Yes) No

If preserved, Lot# 243272/0117801J Date/Time/Int GEL 5/28/25

Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Caitlin Price	38361	6/4/25	743		36851	6/4/25	0742
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time

Available Analyses:

TOC / DOC
TP, TPO4, NH3-N
F, Cl, NO2, Br, NO3, SO4, OPO4
TDS, TSS
Sulfide
BTEX, Napthalene, MTBE, VOC
Rad 226, Rad 228
Oil & Grease
E.coli, Total Coliform

Metals: Ag, Al, As, B, Be, Ba, Ca, Cd, Co, Cr Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb Se, Sn, Tl, V, Zn, P, S, SiO2, Sr, Ti, CrVI

Dissolved Metals: As, Fe

pH

Wallboard Gyp: AIM, TOC, Total and Soluble Metals, Purity, % Moisture, Sulfites, pH, Chloride, Particle Size
Daily Gyp: Free Moisture, Purity (CaSO4)
Limestone Analysis: Acid Insoluble Matter, Total Metals, LOI, Purity (CaCO3), % Moisture
Flyash: Ammonia, LOI, % Carbon, Free CaO, Mineral Analysis

Coal Short Prox: % Moisture, Ash, Sulfur, BTUs
Coal Ultimate: % Moisture, Ash, Sulfur, BTUs , Volatile Matter, CHN
XRF Scan Hardgrove Grindability Index
Sieve Analysis Pulverizer Fineness Particulate Matter Analysis

Oil Quality: % Moisture, Color, Acidity Dielectric Strength, Interfacial Tension Density
Togas: Dissolved Gases in Oil
Metals (Oil): As, Cd, Cr, Ni, Pb, Hg Flash point, Total Halogens, PCB
Gofer Oil:#GOFER **Used Oil:**#USED OIL

TOC 220325000/4G18944 GEL 5/28/25
RAD 243272/0117801J GEL 5/28/25

Cross
CCR/Class 3 LF

(CLF1B-1, CLF1B-2, CLF1B-3, CLF1B-4, CLF1B-5 and Duplicate CLF1B-1)

santee cooper

Chain of Custody

Customer/Send Report To: Melanie Goings/A203

Need Results By (Date Needed): 3 Weeks

Project/Task/Unit # 125915 JM02.09.G01.1 / 36500 36110

Contract Lab Due Date (Lab Only) :

Labworks ID Number	Sample Location / Description	Collection Date	Collection Time	Collection By	Grab/Comp	Matrix	Number of Containers	As, Ba, Ca, Cd, Co, Cr, Fe, Pb, Se, Zn	B	TOC	F, Cl, NO3, SO4	TDS	dissolved As	Comments
	Preservative							1	1	1/3	1	1	1	
	Bottle Type (Glass/Plastic)							P	P	G	P	P	P	
	Sample Type													
AG34919	CLF1B-1	6/4/25	917	AGP/EA	G	GW	8	2	2	1	2	1	1	EDITED CONTAINER AMOUNTS SJL
AG34920	CLF1B-1 Dup	6/4/25	922	AGP/EA	G	GW	8	2	2	1	1	1	1	ADDED PARAMETERS
AG34921	CLF1B-2	6/4/25	1020	AGP/EA	G	GW	8	2	2	1	1	1	1	SENDING NO3 → GEL FILTERED IN LAB – JRL
AG34922	CLF1B-3	6/4/25	1143	AGP/EA	G	GW	8	2	2	1	1	1	1	
AG34923	CLF1B-4	6/4/25	1251	AGP/EA	G	GW	8	2	2	1	1	1	1	
AG34924	CLF1B-5	6/4/25	1337	AGP/EA	G	GW	8	2	2	1	1	1	1	
~~AG34925~~	~~CLF1B-5D~~ AGP													

Temperature Checks: Internal Use Only

TEMP (°C)	INIT
5.8	SJL

Spectrum Lot # 1124081
Batch # 20250213-01
1:1 Nitric Acid (HNO3) SL
6/10/2025 1358

Lot # Thermo Sci U23K034
Batch # 20250213-1
1:1 Sulfuric Acid (H2SO4)
6/10/25 @ 1205 SJL

NO3/NO2 → GEL

Matrix Code: **GW**-Groundwater, **DW**-Drinking Water, **SW**-Surface Water, **WW**-Wastewater, **BW**-Boiler Water, **L**-Limestone, **O**-Oil, **S**-Soil, **SL**-Solid, **C**-Coal, **G**-Gypsum, **FA**-Fly Ash, **BA**-Bottom Ash, **M**-Misc (Describe in Comments)

Preservation used: **1**-<4°C, **2**-HNO_3, **3**-H_2SO_4, **4**-HCl, **5**-$Na_2S_2O_3$, **6**-Other (Specify)

Bottle Type: (G) Glass (P) Plastic

Sample Type: (G) Grab, (C) Composite

Composite Samples:

Start Date/Time:

End Date/Time:

Preservative Record	Correct pH: Yes No	If preserved, Lot#	Date/Time/Int
		220325000/4G10944	GEL 5/28/25

Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
	38361	6/10/25	800	S Avery	35594	6/10/25	0800
Relinquished by: (To Person / Lockbox)	**Employee #**	**Date**	**Time**	**Received by: (From Person / Lockbox)**	**Employee #**	**Date**	**Time**
Relinquished by: (To Person / Lockbox)	**Employee #**	**Date**	**Time**	**Received by: (From Person / Lockbox)**	**Employee #**	**Date**	**Time**

Available Analyses:

TOC / DOC
TP, TPO4, NH3-N
F, Cl, NO2, Br, NO3, SO4, OPO4
TDS, TSS
Sulfide
BTEX, Napthalene, MTBE, VOC
Rad 226, Rad 228
Oil & Grease
E.coli, Total Coliform

Metals: Ag, Al, As, B, Be, Ba, Ca, Cd, Co, Cr Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb Se, Sn, Tl, V, Zn, P, S, SiO2, Sr, Ti, CrVI

Dissolved Metals: As, Fe

pH

Wallboard Gyp: AIM, TOC, Total and Soluble Metals, Purity, % Moisture, Sulfites, pH, Chloride, Particle Size
Daily Gyp: Free Moisture, Purity (CaSO4)
Limestone Analysis: Acid Insoluble Matter, Total Metals, LOI, Purity (CaCO3), % Moisture
Flyash: Ammonia, LOI, % Carbon, Free CaO, Mineral Analysis

Coal Short Prox: % Moisture, Ash, Sulfur, BTUs
Coal Ultimate: % Moisture, Ash, Sulfur, BTUs , Volatile Matter, CHN
XRF Scan Hardgrove Grindability Index
Sieve Analysis Pulverizer Fineness Particulate Matter Analysis

Oil Quality: % Moisture, Color, Acidity Dielectric Strength, Interfacial Tension Density
Togas: Dissolved Gases in Oil
Metals (Oil): As, Cd, Cr, Ni, Pb, Hg
Flash point, Total Halogens, PCB
Gofer Oil:#GOFER **Used Oil:**#USED OIL

santee cooper

Chain of Custody

CROSS Verification Sampling

CLF1B-1 (DUP) and CLF1B-2

Customer/Send Report To: Melanie Goings/A203

Need Results By (Date Needed): 3 Weeks

Project/Task/Unit # 125915 JM02.09.G01.1 / 36110

Contract Lab Due Date (Lab Only) :

Labworks ID Number	Sample Location / Description	Collection Date	Collection Time	Collection By	Sample Type Grab/Comp	Sample Type Matrix	Number of Containers	Preservative	Bottle Type (Glass/Plastic)	Sample Analysis Requested (Method) SO4
										Fill in the Number of Containers for each Test
AG44379	CLF2B-1	8/25/25	1110	WJK/LG	G	GW	1		P	1
80	CLF2B-1 DUP	↓	1115	↓	↓	↓	↓		↓	↓
81	CLF2B-2	↓	1234	↓	↓	↓	↓		↓	↓

Temperature Checks: Internal Use Only

TEMP (°C)	INIT
3.0	SKJ

Comments

Matrix Code: **GW**-Groundwater, **DW**-Drinking Water, **SW**-Surface Water, **WW**-Wastewater, **BW**-Boiler Water, **L**-Limestone, **O**-Oil, **S**-Soil, **SL**-Solid, **C**-Coal, **G**-Gypsum, **FA**-Fly Ash, **BA**-Bottom Ash, **M**-Misc (Describe in Comments)

Preservation used: **1**-<4°C, **2**-HNO_3, **3**-H_2SO_4, **4**-HCL **5**-$Na_2S_2O_3$, **6**-Other (Specify)

Bottle Type: (G) Glass (P) Plastic

Sample Type: (G) Grab, (C) Composite

Composite Samples:

Start Date/Time:

End Date/Time:

Preservative Record	Correct pH: Yes No	If preserved, Lot#	Date/Time/Int

Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
	37981	8/25/25	1450		38125	8/25/2025	1450
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time
Relinquished by: (To Person / Lockbox)	Employee #	Date	Time	Received by: (From Person / Lockbox)	Employee #	Date	Time

Available Analyses:

TOC / DOC
TP, TPO4, NH3-N
F, Cl, NO2, Br, NO3, SO4, OPO4
TDS, TSS
Sulfide
BTEX, Napthalene, MTBE, VOC
Rad 226, Rad 228
Oil & Grease
E.coli, Total Coliform

Metals: Ag, Al, As, B, Be, Ba, Ca, Cd, Co, Cr Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb Se, Sn, Tl, V, Zn, P, S, SiO2, Sr, Ti, CrVI

Dissolved Metals: As, Fe

pH

Wallboard Gyp: AIM, TOC, Total and Soluble Metals, Purity, % Moisture, Sulfites, pH, Chloride, Particle Size
Daily Gyp: Free Moisture, Purity (CaSO4)
Limestone Analysis: Acid Insoluble Matter, Total Metals, LOI, Purity (CaCO3), % Moisture
Flyash: Ammonia, LOI, % Carbon, Free CaO, Mineral Analysis

Coal Short Prox: % Moisture, Ash, Sulfur, BTUs
Coal Ultimate: % Moisture, Ash, Sulfur, BTUs , Volatile Matter, CHN
XRF Scan Hardgrove Grindability Index
Sieve Analysis Pulverizer Fineness Particulate Matter Analysis

Oil Quality: % Moisture, Color, Acidity Dielectric Strength, Interfacial Tension Density
Togas: Dissolved Gases in Oil
Metals (Oil): As, Cd, Cr, Ni, Pb, Hg Flash point, Total Halogens, PCB
Gofer Oil:#GOFER **Used Oil:**#USED OIL

GEL Laboratories LLC
a member of The GEL Group INC

2040 Savage Road | Charleston, SC 29407
843.556.8171

gel.com

March 02, 2025

Ms. Jeanette Gilmetti
Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina 29461

Re: ABS Lab Analytical
Work Order: 706875

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 31, 2025. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Julie Robinson
Project Manager

Purchase Order: 125915/JM02.09.G01.1/36500
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

SOOP001 Santee Cooper

Client SDG: 706875 GEL Work Order: 706875

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

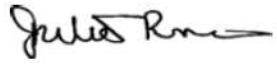
J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Julie Robinson.

Reviewed by 

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21210	Project:	SOOP00119
Sample ID:	706875001	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 09:28		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average	J	0.394	0.330	1.00	mg/L		1	KB3	02/03/25	1846	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0679	0.0330	0.100	mg/L		1	CH6	02/01/25	2306	2743199	2
Sulfate		0.912	0.133	0.400	mg/L		1					
Chloride		20.0	0.335	1.00	mg/L		5	CH6	02/03/25	1140	2743199	3
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	0937	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21211	Project:	SOOP00119
Sample ID:	706875002	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 09:33		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average	J	0.413	0.330	1.00	mg/L		1	KB3	02/03/25	1957	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0709	0.0330	0.100	mg/L		1	CH6	02/02/25	0039	2743199	2
Sulfate		0.873	0.133	0.400	mg/L		1					
Chloride		21.9	0.335	1.00	mg/L		5	CH6	02/03/25	1313	2743199	3
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	0938	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21177	Project:	SOOP00119
Sample ID:	706875003	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 09:20		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		4.98	0.0670	0.200	mg/L		1	CH6	02/02/25	0211	2743199	1
Fluoride	J	0.0528	0.0330	0.100	mg/L		1					
Sulfate		1.11	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21175	Project:	SOOP00119
Sample ID:	706875004	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 10:11		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		4.73	0.0670	0.200	mg/L		1	CH6	02/02/25	0242	2743199	1
Fluoride	U	0.0330	0.0330	0.100	mg/L		1					
Sulfate		0.492	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21178	Project:	SOOP00119
Sample ID:	706875005	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 11:16		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		6.00	0.0670	0.200	mg/L		1	CH6	02/02/25	0415	2743199	1
Fluoride	J	0.0559	0.0330	0.100	mg/L		1					
Sulfate		1.14	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21167	Project:	SOOP00119
Sample ID:	706875006	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 12:40		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		5.61	0.0670	0.200	mg/L		1	CH6	02/02/25	0446	2743199	1
Fluoride	J	0.0674	0.0330	0.100	mg/L		1					
Sulfate		1.33	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21168	Project:	SOOP00119
Sample ID:	706875007	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 13:47		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		5.91	0.0670	0.200	mg/L		1	CH6	02/02/25	0516	2743199	1
Fluoride	U	0.0330	0.0330	0.100	mg/L		1					
Sulfate		0.893	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21204	Project:	SOOP00119
Sample ID:	706875008	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	27-JAN-25 15:35		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average	J	0.392	0.330	1.00	mg/L		1	KB3	02/03/25	2021	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		5.08	0.0670	0.200	mg/L		1	CH6	02/02/25	0547	2743199	2
Fluoride	J	0.0708	0.0330	0.100	mg/L		1					
Sulfate		1.73	0.133	0.400	mg/L		1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	0940	2743403	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21208	Project:	SOOP00119
Sample ID:	706875009	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 12:16		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		2.66	0.330	1.00	mg/L		1	KB3	02/03/25	2044	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0955	0.0330	0.100	mg/L		1	CH6	02/02/25	0618	2743199	2
Chloride		699	13.4	40.0	mg/L		200	CH6	02/03/25	1445	2743199	3
Sulfate		613	26.6	80.0	mg/L		200					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	0941	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21212	Project:	SOOP00119
Sample ID:	706875010	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 10:12		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.33	0.330	1.00	mg/L		1	KB3	02/03/25	2108	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0668	0.0330	0.100	mg/L		1	CH6	02/02/25	0649	2743199	2
Chloride		904	13.4	40.0	mg/L		200	CH6	02/03/25	1516	2743199	3
Sulfate		45.0	1.33	4.00	mg/L		10	CH6	02/03/25	1547	2743199	4
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	0942	2743403	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21207	Project:	SOOP00119
Sample ID:	706875011	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 10:56		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		2.68	0.330	1.00	mg/L		1	KB3	02/03/25	2132	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride		0.169	0.0330	0.100	mg/L		1	CH6	02/02/25	0720	2743199	2
Chloride		337	6.70	20.0	mg/L		100	CH6	02/03/25	1618	2743199	3
Sulfate		139	13.3	40.0	mg/L		100					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	0943	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21209	Project:	SOOP00119
Sample ID:	706875012	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 13:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		2.99	0.330	1.00	mg/L		1	KB3	02/03/25	2156	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0813	0.0330	0.100	mg/L		1	CH6	02/02/25	0751	2743199	2
Chloride		369	6.70	20.0	mg/L		100	CH6	02/03/25	1750	2743199	3
Sulfate		553	13.3	40.0	mg/L		100					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1044	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21206	Project:	SOOP00119
Sample ID:	706875013	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 14:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		2.19	0.330	1.00	mg/L		1	KB3	02/03/25	2220	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride		0.151	0.0330	0.100	mg/L		1	CH6	02/02/25	0822	2743199	2
Chloride		7.11	0.0670	0.200	mg/L		1	CH6	02/03/25	1821	2743199	3
Sulfate		75.4	1.33	4.00	mg/L		10	CH6	02/03/25	1852	2743199	4
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1045	2743403	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21188	Project:	SOOP00119
Sample ID:	706875014	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 11:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		6.04	0.0670	0.200	mg/L		1	CH6	02/02/25	0853	2743199	1
Fluoride	J	0.0782	0.0330	0.100	mg/L		1					
Sulfate		3.98	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21187	Project:	SOOP00119
Sample ID:	706875015	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 12:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		8.06	0.0670	0.200	mg/L		1	CH6	02/02/25	1025	2743199	1
Fluoride	J	0.0608	0.0330	0.100	mg/L		1					
Sulfate		8.40	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21189	Project:	SOOP00119
Sample ID:	706875016	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 13:43		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		5.11	0.0670	0.200	mg/L		1	CH6	02/02/25	1056	2743199	1
Fluoride	U	0.0330	0.0330	0.100	mg/L		1					
Sulfate		0.436	0.133	0.400	mg/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21176	Project:	SOOP00119
Sample ID:	706875017	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 14:47		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0605	0.0330	0.100	mg/L		1	CH6	02/02/25	1127	2743199	1
Sulfate		0.729	0.133	0.400	mg/L		1					
Chloride		12.2	0.670	2.00	mg/L		10	CH6	02/03/25	1923	2743199	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21173	Project:	SOOP00119
Sample ID:	706875018	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 15:29		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		1.28	0.0670	0.200	mg/L		1	CH6	02/02/25	1158	2743199	1
Fluoride		0.364	0.0330	0.100	mg/L		1					
Sulfate		57.1	1.33	4.00	mg/L		10	CH6	02/03/25	1954	2743199	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21169	Project:	SOOP00119
Sample ID:	706875019	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	21-JAN-25 10:10		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0736	0.0330	0.100	mg/L		1	CH6	02/02/25	1229	2743199	1
Chloride		1190	13.4	40.0	mg/L		200	CH6	02/03/25	2025	2743199	2
Sulfate		1330	26.6	80.0	mg/L		200					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21174	Project:	SOOP00119
Sample ID:	706875020	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	21-JAN-25 11:19		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		8.71	0.134	0.400	mg/L		2	CH6	02/03/25	2056	2743199	1
Fluoride	J	0.162	0.0660	0.200	mg/L		2					
Sulfate		1.62	0.266	0.800	mg/L		2					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21181	Project:	SOOP00119
Sample ID:	706875021	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	21-JAN-25 12:17		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0692	0.0330	0.100	mg/L		1	CH6	02/02/25	0058	2743200	1
Sulfate		1.87	0.133	0.400	mg/L		1					
Chloride		13.0	0.134	0.400	mg/L		2	CH6	02/03/25	1154	2743200	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21198	Project:	SOOP00119
Sample ID:	706875022	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	27-JAN-25 09:19		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		2.36	0.330	1.00	mg/L		1	KB3	02/03/25	2303	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride		0.117	0.0330	0.100	mg/L		1	CH6	02/02/25	0129	2743200	2
Chloride		29.4	1.34	4.00	mg/L		20	CH6	02/03/25	1225	2743200	3
Sulfate		191	2.66	8.00	mg/L		20					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1047	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21199	Project:	SOOP00119
Sample ID:	706875023	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	27-JAN-25 09:24		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		2.62	0.330	1.00	mg/L		1	KB3	02/03/25	2327	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride		0.112	0.0330	0.100	mg/L		1	CH6	02/02/25	0200	2743200	2
Chloride		29.3	1.34	4.00	mg/L		20	CH6	02/03/25	1255	2743200	3
Sulfate		190	2.66	8.00	mg/L		20					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1050	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21200	Project:	SOOP00119
Sample ID:	706875024	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	27-JAN-25 10:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.36	0.330	1.00	mg/L		1	KB3	02/03/25	2351	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0488	0.0330	0.100	mg/L		1	CH6	02/02/25	0231	2743200	2
Chloride		93.9	1.34	4.00	mg/L		20	CH6	02/03/25	1326	2743200	3
Sulfate		22.0	2.66	8.00	mg/L		20					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1051	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21201	Project:	SOOP00119
Sample ID:	706875025	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	27-JAN-25 12:12		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		2.25	0.330	1.00	mg/L		1	KB3	02/04/25	0015	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride		0.194	0.0330	0.100	mg/L		1	CH6	02/02/25	0404	2743200	2
Chloride		22.5	1.34	4.00	mg/L		20	CH6	02/03/25	1357	2743200	3
Sulfate		205	2.66	8.00	mg/L		20					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1053	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21202	Project:	SOOP00119
Sample ID:	706875026	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	27-JAN-25 13:35		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.63	0.330	1.00	mg/L		1	KB3	02/04/25	0038	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0538	0.0330	0.100	mg/L		1	CH6	02/02/25	0434	2743200	2
Chloride		93.3	1.34	4.00	mg/L		20	CH6	02/03/25	1428	2743200	3
Sulfate		31.9	2.66	8.00	mg/L		20					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1054	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21203	Project:	SOOP00119
Sample ID:	706875027	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	27-JAN-25 14:54		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.69	0.330	1.00	mg/L		1	KB3	02/04/25	0102	2743526	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	U	0.0330	0.0330	0.100	mg/L		1	CH6	02/02/25	0505	2743200	2
Chloride		167	3.35	10.0	mg/L		50	CH6	02/03/25	1459	2743200	3
Sulfate		254	6.65	20.0	mg/L		50					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0350	0.0350	0.100	mg/L		5	JLD1	02/03/25	1055	2743403	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

QC Summary

Report Date: March 2, 2025

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **706875**

Parmname	NOM		Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Carbon Analysis												
Batch 2743526												
QC1205993096 706875001 DUP												
Total Organic Carbon Average		J	0.394	J	0.369	mg/L	6.55	^		(+/-1.00)	KB3	02/03/25 19:09
QC1205993093 LCS												
Total Organic Carbon Average	10.0				9.96	mg/L			99.6	(80%-120%)		02/03/25 14:20
QC1205993092 MB												
Total Organic Carbon Average				U	0.330	mg/L						02/03/25 14:12
QC1205993097 706875001 PS												
Total Organic Carbon Average	10.0	J	0.394		10.4	mg/L			99.7	(65%-120%)		02/03/25 19:33
Ion Chromatography												
Batch 2743199												
QC1205992458 706875001 DUP												
Chloride			20.0		20.0	mg/L	0.23			(0%-20%)	CH6	02/03/25 12:11
Fluoride		J	0.0679	J	0.0672	mg/L	1.04	^		(+/-0.100)		02/01/25 23:37
Sulfate			0.912		0.867	mg/L	5.04	^		(+/-0.400)		
QC1205992460 706875002 DUP												
Chloride			21.9		21.9	mg/L	0.0638			(0%-20%)		02/03/25 13:43
Fluoride		J	0.0709	J	0.0667	mg/L	6.1	^		(+/-0.100)		02/02/25 01:10
Sulfate			0.873		0.882	mg/L	1.03	^		(+/-0.400)		

QC Summary

Workorder: 706875

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 2743199											
QC1205992457 LCS											
Chloride	5.00				4.57	mg/L		91.4	(90%-110%)	CH6	02/01/25 22:35
Fluoride	2.50				2.36	mg/L		94.5	(90%-110%)		
Sulfate	10.0				9.33	mg/L		93.3	(90%-110%)		
QC1205992456 MB											
Chloride				U	0.0670	mg/L					02/01/25 22:04
Fluoride				U	0.0330	mg/L					
Sulfate				U	0.133	mg/L					
QC1205992459 706875001 PS											
Chloride	5.00		4.01		9.14	mg/L		103	(90%-110%)		02/03/25 12:42
Fluoride	2.50	J	0.0679		2.55	mg/L		99.2	(90%-110%)		02/02/25 00:08
Sulfate	10.0		0.912		10.3	mg/L		94.2	(90%-110%)		
QC1205992461 706875002 PS											
Chloride	5.00		4.39		9.51	mg/L		102	(90%-110%)		02/03/25 14:14
Fluoride	2.50	J	0.0709		2.61	mg/L		101	(90%-110%)		02/02/25 01:40
Sulfate	10.0		0.873		10.7	mg/L		98.3	(90%-110%)		
Batch 2743200											
QC1205992466 706875027 DUP											
Chloride			167		167	mg/L	0.009		(0%-20%)	CH6	02/03/25 15:30

QC Summary

Workorder: **706875**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 2743200											
Fluoride		U	0.0330	U	0.0330	mg/L	N/A			CH6	02/02/25 05:36
Sulfate			254		253	mg/L	0.437		(0%-20%)		02/03/25 15:30
QC1205992463 LCS											
Chloride	5.00				4.70	mg/L		94	(90%-110%)		02/01/25 15:09
Fluoride	2.50				2.37	mg/L		95	(90%-110%)		
Sulfate	10.0				9.63	mg/L		96.3	(90%-110%)		
QC1205992462 MB											
Chloride				U	0.0670	mg/L					02/01/25 14:38
Fluoride				U	0.0330	mg/L					
Sulfate				U	0.133	mg/L					
QC1205992467 706875027 PS											
Chloride	5.00		3.33		8.47	mg/L		103	(90%-110%)		02/03/25 16:01
Fluoride	2.50	U	0.000		2.49	mg/L		99.5	(90%-110%)		02/02/25 06:07
Sulfate	10.0		5.09		15.1	mg/L		99.8	(90%-110%)		02/03/25 16:01
Nutrient Analysis											
Batch 2743403											
QC1205992913 706875022 DUP											
Nitrogen, Nitrate/Nitrite		U	0.0350	U	0.0350	mg/L	N/A			JLD1	02/03/25 10:48

QC Summary

Workorder: **706875**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis										
Batch 2743403										
QC1205992910 LCS										
Nitrogen, Nitrate/Nitrite	1.00			0.986	mg/L		98.6	(90%-110%)	JLD1	02/03/25 09:36
QC1205992909 MB										
Nitrogen, Nitrate/Nitrite			U	0.00700	mg/L					02/03/25 08:58
QC1205992914 706875022 PS										
Nitrogen, Nitrate/Nitrite	1.00 U	-0.00174		0.991	mg/L		99.1	(90%-110%)		02/03/25 10:49

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- N1 See case narrative
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- x Subaliquot was taken. See Case Narrative for details.

QC Summary

Workorder: **706875**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21210	Project:	SOOP00119
Sample ID:	706875001	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 09:28		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.715	+/-0.718	1.17	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.01	+/-0.484	0.483	1.00	pCi/L			MJ2	03/02/25	0723	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			44.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21211	Project:	SOOP00119
Sample ID:	706875002	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 09:33		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		1.09	+/-0.614	0.866	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.614	+/-0.298	0.323	1.00	pCi/L			MJ2	03/02/25	0723	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			48.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21177	Project:	SOOP00119
Sample ID:	706875003	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 09:20		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		1.10	+/-0.643	0.922	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.338	+/-0.310	0.468	1.00	pCi/L			MJ2	03/02/25	0723	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			45.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21175	Project:	SOOP00119
Sample ID:	706875004	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 10:11		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.261	+/-0.479	0.853	1.00	pCi/L			DH1	02/26/25	1452	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.286	+/-0.194	0.219	1.00	pCi/L			MJ2	03/02/25	0722	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			51.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21178	Project:	SOOP00119
Sample ID:	706875005	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 11:16		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.364	+/-0.541	0.938	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.456	+/-0.406	0.634	1.00	pCi/L			MJ2	03/02/25	0722	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			49.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21167	Project:	SOOP00119
Sample ID:	706875006	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 12:40		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		1.10	+/-0.634	0.919	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.04	+/-0.383	0.367	1.00	pCi/L			MJ2	03/02/25	0722	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			52.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21168	Project:	SOOP00119
Sample ID:	706875007	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	30-JAN-25 13:47		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	-0.115	+/-0.409	0.828	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.554	+/-0.270	0.235	1.00	pCi/L			MJ2	03/02/25	0722	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			58.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21212	Project:	SOOP00119
Sample ID:	706875010	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 10:12		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.614	+/-0.573	0.934	1.00	pCi/L			DH1	02/26/25	1452	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.446	+/-0.327	0.448	1.00	pCi/L			MJ2	03/02/25	0722	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			56	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21207	Project:	SOOP00119
Sample ID:	706875011	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 10:56		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.524	+/-0.721	1.24	1.00	pCi/L			DH1	02/26/25	1452	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.31	+/-0.429	0.265	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			42.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21209	Project:	SOOP00119
Sample ID:	706875012	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 13:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.942	+/-0.741	1.17	1.00	pCi/L			DH1	02/26/25	1452	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.847	+/-0.370	0.375	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			45.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21206	Project:	SOOP00119
Sample ID:	706875013	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	28-JAN-25 14:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.523	+/-0.561	0.934	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.472	+/-0.303	0.328	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			57.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21188	Project:	SOOP00119
Sample ID:	706875014	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 11:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.382	+/-0.569	0.984	1.00	pCi/L			DH1	02/26/25	1452	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.381	+/-0.249	0.304	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			55.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21187	Project:	SOOP00119
Sample ID:	706875015	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 12:39		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.481	+/-0.684	1.17	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.790	+/-0.424	0.542	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			49.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21189	Project:	SOOP00119
Sample ID:	706875016	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 13:43		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.513	+/-0.720	1.24	1.00	pCi/L			DH1	02/26/25	1452	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.00	+/-0.391	0.408	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			48.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21176	Project:	SOOP00119
Sample ID:	706875017	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 14:47		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.00	+/-0.806	1.30	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.609	+/-0.301	0.307	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			43.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21173	Project:	SOOP00119
Sample ID:	706875018	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	29-JAN-25 15:29		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		1.83	+/-0.722	1.01	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.278	+/-0.281	0.440	1.00	pCi/L			MJ2	03/02/25	0755	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			55.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21169	Project:	SOOP00119
Sample ID:	706875019	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	21-JAN-25 10:10		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		1.24	+/-0.733	1.12	1.00	pCi/L			DH1	02/26/25	1452	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.714	+/-0.324	0.311	1.00	pCi/L			MJ2	03/02/25	0834	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			51.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21174	Project:	SOOP00119
Sample ID:	706875020	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	21-JAN-25 11:19		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.958	+/-0.692	1.11	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.516	+/-0.259	0.232	1.00	pCi/L			MJ2	03/02/25	0834	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			52.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: March 2, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21181	Project:	SOOP00119
Sample ID:	706875021	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	21-JAN-25 12:17		
Receive Date:	31-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.731	+/-0.708	1.17	1.00	pCi/L			DH1	02/26/25	1448	2743620	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.823	+/-0.424	0.479	1.00	pCi/L			MJ2	03/02/25	0834	2743208	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			48.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
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QC Summary

Report Date: March 2, 2025

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina
Contact: **Ms. Jeanette Gilmetti**

Workorder: **706875**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2743620										
QC1205993350 706875001 DUP										
Radium-228	U	0.715	U	0.468	pCi/L	N/A		N/A	DH1	02/26/25 14:47
	Uncertainty	+/-0.718		+/-0.631						
QC1205993351 LCS										
Radium-228	28.5			22.0	pCi/L		77	(75%-125%)		02/26/25 14:52
	Uncertainty			+/-1.74						
QC1205993349 MB										
Radium-228			U	-0.0909	pCi/L					02/26/25 14:47
	Uncertainty			+/-0.487						
Rad Ra-226										
Batch 2743208										
QC1205992499 706875001 DUP										
Radium-226		1.01		0.837	pCi/L	18.5		(0% - 100%)	MJ2	03/02/25 08:34
	Uncertainty	+/-0.484		+/-0.442						
QC1205992501 LCS										
Radium-226	27.2			20.9	pCi/L		77	(75%-125%)		03/02/25 08:33
	Uncertainty			+/-1.62						
QC1205992498 MB										
Radium-226			U	0.177	pCi/L					03/02/25 08:34
	Uncertainty			+/-0.245						
QC1205992500 706875001 MS										
Radium-226	271	1.01		239	pCi/L		87.8	(75%-125%)		03/02/25 08:33
	Uncertainty	+/-0.484		+/-12.1						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded

QC Summary

Workorder: **706875**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

<	Result is less than value reported
>	Result is greater than value reported
UI	Gamma Spectroscopy--Uncertain identification
BD	Results are either below the MDC or tracer recovery is low
h	Preparation or preservation holding time was exceeded
R	Sample results are rejected
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
M	M if above MDC and less than LLD
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
FA	Failed analysis.
UJ	Gamma Spectroscopy--Uncertain identification
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
N1	See case narrative
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.
**	Analyte is a Tracer compound
M	REMP Result > MDC/CL and < RDL
x	Subaliquot was taken. See Case Narrative for details.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

General Chemistry

Product: **Carbon, Total Organic**
Analytical Method: SM 5310 B
Analytical Procedure: GL-GC-E-093 REV# 22
Analytical Batch: 2743526

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
706875001	AG21210
706875002	AG21211
706875008	AG21204
706875009	AG21208
706875010	AG21212
706875011	AG21207
706875012	AG21209
706875013	AG21206
706875022	AG21198
706875023	AG21199
706875024	AG21200
706875025	AG21201
706875026	AG21202
706875027	AG21203
1205993092	Method Blank (MB)
1205993093	Laboratory Control Sample (LCS)
1205993096	706875001(AG21210) Sample Duplicate (DUP)
1205993097	706875001(AG21210) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Ion Chromatography**
Analytical Method: EPA 300.0
Analytical Procedure: GL-GC-E-086 REV# 36
Analytical Batch: 2743199

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
706875001	AG21210
706875002	AG21211

706875003	AG21177
706875004	AG21175
706875005	AG21178
706875006	AG21167
706875007	AG21168
706875008	AG21204
706875009	AG21208
706875010	AG21212
706875011	AG21207
706875012	AG21209
706875013	AG21206
706875014	AG21188
706875015	AG21187
706875016	AG21189
706875017	AG21176
706875018	AG21173
706875019	AG21169
706875020	AG21174
1205992456	Method Blank (MB)
1205992457	Laboratory Control Sample (LCS)
1205992458	706875001(AG21210) Sample Duplicate (DUP)
1205992459	706875001(AG21210) Post Spike (PS)
1205992460	706875002(AG21211) Sample Duplicate (DUP)
1205992461	706875002(AG21211) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following samples 1205992458 (AG21210DUP), 1205992459 (AG21210PS), 1205992460 (AG21211DUP), 1205992461 (AG21211PS), 706875001 (AG21210), 706875002 (AG21211), 706875009 (AG21208), 706875010 (AG21212), 706875011 (AG21207), 706875012 (AG21209), 706875013 (AG21206), 706875017 (AG21176), 706875018 (AG21173) and 706875019 (AG21169) were diluted because target analyte concentrations exceeded the calibration range. The following sample 706875020 (AG21174) in this sample group was diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	706875									
	001	002	009	010	011	012	013	017	018	019
Chloride	5X	5X	200X	200X	100X	100X	1X	10X	1X	200X
Sulfate	1X	1X	200X	10X	100X	100X	10X	1X	10X	200X

Analyte	706875
	020
Chloride	2X
Fluoride	2X
Sulfate	2X

Sample Re-analysis
Samples 706875013 (AG21206) and 706875020 (AG21174) were re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported.

Miscellaneous Information

Manual Integrations
Samples 1205992458 (AG21210DUP), 1205992460 (AG21211DUP), 706875001 (AG21210), 706875002 (AG21211), 706875003 (AG21177), 706875005 (AG21178), 706875006 (AG21167), 706875008 (AG21204), 706875009 (AG21208), 706875010 (AG21212), 706875011 (AG21207), 706875012 (AG21209), 706875013 (AG21206), 706875014 (AG21188), 706875015 (AG21187), 706875017 (AG21176), 706875019 (AG21169) and 706875020 (AG21174) were manually integrated to correctly position the baseline as set in the calibration standards.

Product: Ion Chromatography
Analytical Method: EPA 300.0
Analytical Procedure: GL-GC-E-086 REV# 36
Analytical Batch: 2743200

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
706875021	AG21181
706875022	AG21198
706875023	AG21199
706875024	AG21200
706875025	AG21201
706875026	AG21202
706875027	AG21203
1205992462	Method Blank (MB)
1205992463	Laboratory Control Sample (LCS)
1205992466	706875027(AG21203) Sample Duplicate (DUP)
1205992467	706875027(AG21203) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following samples 1205992466 (AG21203DUP), 1205992467 (AG21203PS), 706875021 (AG21181), 706875022 (AG21198), 706875023 (AG21199), 706875024 (AG21200), 706875025 (AG21201), 706875026 (AG21202) and 706875027 (AG21203) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	706875						
	021	022	023	024	025	026	027

Chloride	2X	20X	20X	20X	20X	20X	50X
Sulfate	1X	20X	20X	20X	20X	20X	50X

Miscellaneous Information

Manual Integrations
Sample 706875024 (AG21200) was manually integrated to correctly position the baseline as set in the calibration standards.

Product: **Nitrate/Nitrite Cad Redux Low Level**
Analytical Method: EPA 353.2 Low Level
Analytical Procedure: GL-GC-E-128 REV# 16
Analytical Batch: 2743403

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
706875001	AG21210
706875002	AG21211
706875008	AG21204
706875009	AG21208
706875010	AG21212
706875011	AG21207
706875012	AG21209
706875013	AG21206
706875022	AG21198
706875023	AG21199
706875024	AG21200
706875025	AG21201
706875026	AG21202
706875027	AG21203
1205992909	Method Blank (MB)
1205992910	Laboratory Control Sample (LCS)
1205992913	706875022(AG21198) Sample Duplicate (DUP)
1205992914	706875022(AG21198) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following samples 1205992913 (AG21198DUP), 1205992914 (AG21198PS), 706875001 (AG21210), 706875002 (AG21211), 706875008 (AG21204), 706875009 (AG21208), 706875010 (AG21212), 706875011 (AG21207), 706875012 (AG21209), 706875013 (AG21206), 706875022 (AG21198), 706875023 (AG21199), 706875024 (AG21200), 706875025 (AG21201), 706875026 (AG21202) and 706875027 (AG21203) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	706875									
	001	002	008	009	010	011	012	013	022	023
Nitrogen, Nitrate/Nitrite	5X	5X	5X	5X	5X	5X	5X	5X	5X	5X

Analyte	706875			
	024	025	026	027
Nitrogen, Nitrate/Nitrite	5X	5X	5X	5X

Sample Re-analysis
Sample 1205992910 (LCS) was re-analyzed to verify the result.

Radiochemistry

Product: **GFPC, Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2743620

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
706875001	AG21210
706875002	AG21211
706875003	AG21177
706875004	AG21175
706875005	AG21178
706875006	AG21167
706875007	AG21168
706875010	AG21212
706875011	AG21207
706875012	AG21209
706875013	AG21206
706875014	AG21188
706875015	AG21187
706875016	AG21189
706875017	AG21176
706875018	AG21173
706875019	AG21169
706875020	AG21174
706875021	AG21181
1205993349	Method Blank (MB)
1205993350	706875001(AG21210) Sample Duplicate (DUP)
1205993351	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

RDL Met
The following RDLs were met with rounding.

Sample	Analyte	Value
1205993350 (AG21210DUP)	Radium-228	Result 0.468 < MDA 1.08 > RDL 1 pCi/L
706875001 (AG21210)	Radium-228	Result 0.715 < MDA 1.17 > RDL 1 pCi/L
706875011 (AG21207)	Radium-228	Result 0.524 < MDA 1.24 > RDL 1 pCi/L
706875012 (AG21209)	Radium-228	Result 0.942 < MDA 1.17 > RDL 1 pCi/L
706875015 (AG21187)	Radium-228	Result 0.481 < MDA 1.17 > RDL 1 pCi/L
706875016 (AG21189)	Radium-228	Result 0.513 < MDA 1.24 > RDL 1 pCi/L
706875017 (AG21176)	Radium-228	Result 1 < MDA 1.3 > RDL 1 pCi/L
706875020 (AG21174)	Radium-228	Result 0.958 < MDA 1.11 > RDL 1 pCi/L
706875021 (AG21181)	Radium-228	Result 0.731 < MDA 1.17 > RDL 1 pCi/L

Product: **Lucas Cell, Ra226, Liquid**
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2743208

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
706875001	AG21210
706875002	AG21211
706875003	AG21177
706875004	AG21175
706875005	AG21178
706875006	AG21167
706875007	AG21168
706875010	AG21212
706875011	AG21207
706875012	AG21209
706875013	AG21206
706875014	AG21188
706875015	AG21187
706875016	AG21189
706875017	AG21176
706875018	AG21173
706875019	AG21169
706875020	AG21174
706875021	AG21181
1205992498	Method Blank (MB)
1205992499	706875001(AG21210) Sample Duplicate (DUP)

1205992500	706875001(AG21210) Matrix Spike (MS)
1205992501	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Aliquot Reduced
1205992499 (AG21210DUP), 1205992500 (AG21210MS) and 706875001 (AG21210) Aliquots were reduced due to limited sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

RAD - 2/21/25 706875

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 2 / 7 / 24 Send report to lcwillia@santeecooper.com & sherri.levy@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LINDA.WILLIAMS @santeecooper.com

Date Results Needed by: / /

Project/Task/Unit #: 125915 / JM02.09.G01.1 / 36500

Rerun request for any flagged QC (Yes) No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc sample info • Any other notes	RAD 226/228	TOC	F, Cl, SO4	NO3/NO2
AG21210	POZ-7	1/29/25	0928	ATH DCA	4	Pd G	G	GW	2/1,3		2	1	1	1
11	POZ-7 DUP	1	0933	1	1	1	1	1	1		1	1	1	1
AG21177	CCMAP-10	1/30/25	0920		3	P	G	GW	2/1		2		1	
75	CCMAP-8		1011											
78	CCMAP-11		1116											
67	CCMAP-1		1240											
68	CCMAP 2		1347											
AG21204	CLF1B-5D	1/27/25	1535	MDG ATH	3	Pd G	G	GW	1/3,1			1	1	1
AG21208	POZ-5D	1/28/25	1216	ATH DCA	3	Pd G	G	GW	1/3,1			1	1	1

Nutrients
- ☐ TOC
- ☐ DOC
- ☐ TP/TPO4
- ☐ NH3-N
- ☐ F
- ☐ Cl
- ☐ NO2
- ☐ Br
- ☐ NO3
- ☐ SO4

Gypsum
- ☐ Wallboard
- ☐ AIM
- ☐ TOC
- ☐ Total metals
- ☐ Soluble Metals
- ☐ Purity (CaSO4)
- ☐ % Moisture
- ☐ Sulfites
- ☐ pH
- ☐ Chlorides
- ☐ Particle Size
- ☐ Sulfur
- ☐ USDA

Coal
- ☐ Short Prox.
  - ☐ % Moisture
  - ☐ Ash
  - ☐ Sulfur
- ☐ BTUs
- **Ultimate**
- ☐ Volatile Matter
- ☐ CHN
- ☐ HGI

Other Analysis:
- ☐ Fineness
- ☐ Particulate Matter

Flyash
- ☐ Ammonia
- ☐ LOI
- ☐ % Carbon
- ☐ Mineral Analysis
- ☐ Sieve
- ☐ % Moisture

NPDES
- ☐ Oil & Grease
- ☐ As
- ☐ TSS

Oil
- ☐ Trans. Oil Quality
  - ☐ %Moisture
  - ☐ Color
  - ☐ Acidity
  - ☐ Dielectric Strength
  - ☐ IFT
  - ☐ Dissolved Gases
- ☐ Used Oil
  - ☐ Flashpoint
  - ☐ Metals (As, Cd, Cr, Ni, Pb, Hg)
- ☐ GOFER

MISC.
- ☐ BTEX
- ☐ Naphthalene
- ☐ VOA/Semi
- ☐ Oil & Grease
- ☐ E. Coli
- ☐ Total Coliform
- ☐ pH
- ☐ Dissolved As
- ☐ Dissolved Fe
- ☐ Rad 226
- ☐ Rad 228
- ☐ PCB

☐ Metals (All)

☐ Ag	☐ Al	☐ As	☐ B
☐ Ba	☐ Be	☐ Ca	☐ Cd
☐ Co	☐ Cr	☐ Cu	☐ Fe
☐ K	☐ Li	☐ Mg	☐ Mn
☐ Mo	☐ Na	☐ Ni	☐ Pb
☐ Sb	☐ Se	☐ Sn	☐ Sr
☐ Ti	☐ Tl	☐ V	☐ Zn
☐ Hg	☐ CrVI	☐ XRF scan	

☐ RCRA (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)

Relinquished by:	Employee #	Received by:	Employee #	Date	Time
	36851		GEL	1/31/25	1017
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
			GEL	1.31.25	1540
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
Relinquished by:	Employee #	Received by:	Employee #	Date	Time

Sample Receiving (Internal Use Only)

TEMP (°C): _____

Initials: _____

Correct pH: Yes No

Preservative Lot #:

Date/Time/Init for preservative:

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)

Preservative Codes: 1=Ice 2=HNO_3 3=H_2SO_4 4=HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

RAD 2/21/25

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 2/7/24 Send report to lcwillia@santeecooper.com & sherri.levy@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LINDA. WILLIAMS @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 125915 / JM02.09.G01.11 / 36500

Rerun request for any flagged QC (Yes) No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix (see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226/228	TOC	F, Cl, SO4	NO3/NO2
AG21212	FGE-8	1/28/25	1012	ATH DCA	4	P/G	G	GW	2/1,3		2	1	1	1
07	-4		1056											
09	-6		1339											
06	-3		1439											
AG21188	CCMLF-1D	1/29/25	1139	ATH DCA	3	P	G	GW	2/1		2		1	
87	CCMLF-1		1239											
89	CCMLF-2		1343											
76	CCMAP-9		1447											
73	CCMAP-6		1529											

Nutrients
- ☐ TOC
- ☐ DOC
- ☐ TP/TPO4
- ☐ NH3-N
- ☐ F
- ☐ Cl
- ☐ NO2
- ☐ Br
- ☐ NO3
- ☐ SO4

Gypsum
- ☐ Wallboard
- ☐ AIM
- ☐ TOC
- ☐ Total metals
- ☐ Soluble Metals
- ☐ Purity (CaSO4)
- ☐ % Moisture
- ☐ Sulfites
- ☐ pH
- ☐ Chlorides
- ☐ Particle Size
- ☐ Sulfur
- ☐ USDA

Coal
- ☐ Short Prox.
  - ☐ % Moisture
  - ☐ Ash
  - ☐ Sulfur
- ☐ BTUs
- **Ultimate**
- ☐ Volatile Matter
- ☐ CHN
- ☐ HGI

Other Analysis:
- ☐ Fineness
- ☐ Particulate Matter

Flyash
- ☐ Ammonia
- ☐ LOI
- ☐ % Carbon
- ☐ Mineral Analysis
- ☐ Sieve
- ☐ % Moisture

NPDES
- ☐ Oil & Grease
- ☐ As
- ☐ TSS

Oil
- ☐ Trans. Oil Quality
  - ☐ %Moisture
  - ☐ Color
  - ☐ Acidity
  - ☐ Dielectric Strength
  - ☐ IFT
  - ☐ Dissolved Gases
- ☐ Used Oil
  - ☐ Flashpoint
  - ☐ Metals (As, Cd, Cr, Ni, Pb, Hg)
- ☐ GOFER

MISC.
- ☐ BTEX
- ☐ Naphthalene
- ☐ VOA/Semi
- ☐ Oil & Grease
- ☐ E. Coli
- ☐ Total Coliform
- ☐ pH
- ☐ Dissolved As
- ☐ Dissolved Fe
- ☐ Rad 226
- ☐ Rad 228
- ☐ PCB

☐ Metals (All)

☐ Ag	☐ Al	☐ As	☐ B
☐ Ba	☐ Be	☐ Ca	☐ Cd
☐ Co	☐ Cr	☐ Cu	☐ Fe
☐ K	☐ Li	☐ Mg	☐ Mn
☐ Mo	☐ Na	☐ Ni	☐ Pb
☐ Sb	☐ Se	☐ Sn	☐ Sr
☐ Ti	☐ Tl	☐ V	☐ Zn
☐ Hg	☐ CrVI	☐ XRF scan	

☐ RCRA (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)

Relinquished by:	Employee #	Received by:	Employee #	Date	Time
	36851		GEL	1/31/25	1017
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
	GEL		GEL	1-31-25	1540
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
Relinquished by:	Employee #	Received by:	Employee #	Date	Time

Sample Receiving (Internal Use Only)

TEMP (°C): _____

Initials: _____

Correct pH: Yes No

Preservative Lot #:

Date/Time/Init for preservative:

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)

Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

RAD – 2/21/25

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 2/7/25 Send report to lcwillia@santeecooper.com & sherri.levy@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LINDA. WILLIAMS @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 125915 / JM02.09.G01.1 / 36500

Rerun request for any flagged QC: (Yes) No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(See below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226/228	TOC	F, Cl, SO_4	NO_3/NO_2
AG21169	CCMAP-3	1/21/25	1010	MDG DCA	3	P	G	GW	2/1		2		1	
74	CCMAP-7	"	1119	"	"	"	"	"	"		2		1	
81	CCMAP-14	"	1217	"	"	"	"	"	"		2		1	
AG21198	CLFIB-1	1/27/25	0919	MDG ATH	3	P&G			1/3			1	1	1
99	CFLIB-1 DUP	"	0924	"	"	"	"	"	"			1	1	1
200	CLFIB-2	"	1039	"	"	"	"	"	"			1	1	1
201	CLFIB-3	"	1212	"	"	"	"	"	"			1	1	1
202	CLFIB-4	"	1335	"	"	"	"	"	"			1	1	1
203	CLFIB-5	"	1454	"	"	"	"	"	"			1	1	1

Nutrients
- ☐ TOC
- ☐ DOC
- ☐ TP/TPO4
- ☐ NH3-N
- ☐ F
- ☐ Cl
- ☐ NO2
- ☐ Br
- ☐ NO3
- ☐ SO4

Gypsum
- ☐ Wallboard
- ☐ AIM
- ☐ TOC
- ☐ Total metals
- ☐ Soluble Metals
- ☐ Purity (CaSO4)
- ☐ % Moisture
- ☐ Sulfites
- ☐ pH
- ☐ Chlorides
- ☐ Particle Size
- ☐ Sulfur
- ☐ USDA

Coal
- ☐ Short Prox.
  - ☐ % Moisture
  - ☐ Ash
  - ☐ Sulfur
- ☐ BTUs
- Ultimate
- ☐ Volatile Matter
- ☐ CHN
- ☐ HGI
- Other Analysis:
- ☐ Fineness
- ☐ Particulate Matter

Flyash
- ☐ Ammonia
- ☐ LOI
- ☐ % Carbon
- ☐ Mineral Analysis
- ☐ Sieve
- ☐ % Moisture

NPDES
- ☐ Oil & Grease
- ☐ As
- ☐ TSS

Oil
- ☐ Trans. Oil Quality
  - ☐ %Moisture
  - ☐ Color
  - ☐ Acidity
  - ☐ Dielectric Strength
  - ☐ IFT
  - ☐ Dissolved Gases
- ☐ Used Oil
  - ☐ Flashpoint
  - ☐ Metals (As, Cd, Cr, Ni, Pb, Hg)
- ☐ GOFER

MISC.
- ☐ BTEX
- ☐ Naphthalene
- ☐ VOA/Semi
- ☐ Oil & Grease
- ☐ E. Coli
- ☐ Total Coliform
- ☐ pH
- ☐ Dissolved As
- ☐ Dissolved Fe
- ☐ Rad 226
- ☐ Rad 228
- ☐ PCB

☐ Metals (All)

☐ Ag	☐ Al	☐ As	☐ B
☐ Ba	☐ Be	☐ Ca	☐ Cd
☐ Co	☐ Cr	☐ Cu	☐ Fe
☐ K	☐ Li	☐ Mg	☐ Mn
☐ Mo	☐ Na	☐ Ni	☐ Pb
☐ Sb	☐ Se	☐ Sn	☐ Sr
☐ Ti	☐ Tl	☐ V	☐ Zn
☐ Hg	☐ CrVI	☐ XRF scan	

☐ RCRA (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)

Relinquished by:	Employee #	Received by:	Employee #	Date	Time
	36851		GEL	1/31/25	1017
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
	GEL		GEL	1-31-25	1540
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
Relinquished by:	Employee #	Received by:	Employee #	Date	Time
Relinquished by:	Employee #	Received by:	Employee #	Date	Time

Sample Receiving (Internal Use Only)

TEMP (°C): _____

Initials: _____

Correct pH: Yes No

Preservative Lot #:

Date/Time/Init for preservative:

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)

Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SCDP	SDG/AR/COC/Work Order: 706875	GEL PM:
Received By: QG	Date Received at GEL: 1/31/25	

Carrier (Circle Applicable)
FedEx Express FedEx Ground UPS Field Services Courier Client Other:

IR Temp gun # IR1-23 Daily Calibration Performed? Y/N

Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (ie radiochem only).	Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (ie radiochem only).
Cooler 1	0C				
Cooler 2	0C				
Cooler 3	15C	✓			

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Are there any sample hazards to document?		✓	If yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Corrosive Other:
E) Was a SDS received and reviewed by Lab Safety?		✓	Circle Applicable: See additional Comments below. No additional comments needed after review.

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Direct client dropoff Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	If there are samples requiring cold preservation, did they arrive within (0 < 6 °C)?	✓			Preservation Method: Wet Ice Ice Packs Dry Ice None Other: *all temperatures recorded next to tracking numbers are in Celcius
4	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	✓			Preserved per COC request or list Sample IDs and Containers Affected: If Preservation added, Lot#:
6	Do any samples require Volatile Analysis? (If yes, answer all three additional questions.)				If Yes, are Encores or Soil Kits present? Yes___ No___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample IDs and containers affected:
7	Samples received within holding time?	✓			IDs and tests affected:
8	Sample IDs on COC match IDs on bottles?	✓			IDs and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
10	Number of containers received match number indicated on COC?			✓	Circle Applicable: No container count on COC Missing Container (provide details) Other (describe) AC21212, 07, 07, 04 have 5 containers
11	Are sample containers identifiable as GEL provided by use of GEL labels?	✓			
12	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments:
AC21210, 11 have 5 containers

PM (or PMA) review: Initials MG Date 2/3/25

☐ Continuation Form Required when selected

List of current GEL Certifications as of 02 March 2025

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	525-24-281-19660
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

GEL Laboratories LLC
a member of The GEL Group INC

2040 Savage Road | Charleston, SC 29407
843.556.8171
gel.com

February 14, 2025

Ms. Jeanette Gilmetti
Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina 29461

Re: ABS Lab Analytical
Work Order: 704945

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 17, 2025. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Max Gloth

Max Gloth for
Julie Robinson
Project Manager

Purchase Order: 125915/JM02.09.G01/36500
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

SOOP001 Santee Cooper

Client SDG: 704945 GEL Work Order: 704945

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Julie Robinson.

Reviewed by Max Gloth

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 14, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21205	Project:	SOOP00119
Sample ID:	704945001	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	14-JAN-25 10:19		
Receive Date:	17-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		6.14	0.330	1.00	mg/L		1	KB3	01/21/25	0812	2737188	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Fluoride	J	0.0382	0.0330	0.100	mg/L		1	CWW	01/18/25	0251	2736888	2
Chloride		11.7	0.134	0.400	mg/L		2	CWW	01/18/25	1640	2736888	3
Sulfate		21.4	0.266	0.800	mg/L		2					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	0.0700	0.0700	0.200	mg/L		10	AXH3	01/20/25	0743	2736854	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 14, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21166	Project:	SOOP00119
Sample ID:	704945002	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	14-JAN-25 11:54		
Receive Date:	17-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 B Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.98	0.330	1.00	mg/L		1	KB3	01/21/25	0925	2737188	1
Ion Chromatography												
EPA 300.0 Fluoride, Liquid "As Received"												
Chloride		3.46	0.0670	0.200	mg/L		1	CWW	01/18/25	0322	2736888	2
Fluoride		0.134	0.0330	0.100	mg/L		1					
Sulfate		76.9	0.665	2.00	mg/L		5	CWW	01/18/25	1816	2736888	3
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.671	0.0700	0.200	mg/L		10	AXH3	01/20/25	0744	2736854	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 353.2 Low Level	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

QC Summary

Report Date: February 14, 2025

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **704945**

Parmname	NOM	Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Carbon Analysis											
Batch 2737188											
QC1205981766 704945001 DUP											
Total Organic Carbon Average		6.14		6.24	mg/L	1.68			(0%-20%)	KB3	01/21/25 08:36
QC1205981754 LCS											
Total Organic Carbon Average	10.0			9.63	mg/L			96.3	(80%-120%)		01/20/25 22:36
QC1205981755 LCSD											
Total Organic Carbon Average	10.0			10.3	mg/L	7.09		103	(0%-20%)		01/20/25 22:48
QC1205981753 MB											
Total Organic Carbon Average			U	0.330	mg/L						01/20/25 22:28
QC1205981767 704945001 PS											
Total Organic Carbon Average	10.0	6.14		16.1	mg/L			99.7	(65%-120%)		01/21/25 09:01
Ion Chromatography											
Batch 2736888											
QC1205981051 704940001 DUP											
Chloride		168		166	mg/L	0.635			(0%-20%)	CWW	01/17/25 21:00
Fluoride		1.64		1.55	mg/L	5.93	^		(+/-0.500)		01/18/25 05:30
Sulfate		759		771	mg/L	1.54			(0%-20%)		01/17/25 21:00
QC1205981053 704945002 DUP											
Chloride		3.46		3.47	mg/L	0.202			(0%-20%)		01/18/25 03:54
Fluoride		0.134		0.142	mg/L	5.66	^		(+/-0.100)		

QC Summary

Workorder: **704945**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography										
Batch 2736888										
Sulfate		76.9		76.4	mg/L	0.581		(0%-20%)	CWW	01/18/25 18:48
QC1205981050 LCS										
Chloride	5.00			4.83	mg/L		96.5	(90%-110%)		01/17/25 19:25
Fluoride	2.50			2.48	mg/L		99.3	(90%-110%)		
Sulfate	10.0			9.80	mg/L		98	(90%-110%)		
QC1205981049 MB										
Chloride			U	0.0670	mg/L					01/17/25 18:53
Fluoride			U	0.0330	mg/L					
Sulfate			U	0.133	mg/L					
QC1205981052 704940001 PS										
Chloride	5.00	1.68		6.55	mg/L		97.4	(90%-110%)		01/17/25 21:32
Fluoride	2.50	0.328		2.74	mg/L		96.4	(90%-110%)		01/18/25 06:02
Sulfate	10.0	7.59		17.6	mg/L		99.9	(90%-110%)		01/17/25 21:32
QC1205981054 704945002 PS										
Chloride	5.00	3.46		8.54	mg/L		102	(90%-110%)		01/18/25 04:26
Fluoride	2.50	0.134		2.77	mg/L		105	(90%-110%)		
Sulfate	10.0	15.4		25.5	mg/L		102	(90%-110%)		01/18/25 19:19

QC Summary

Workorder: **704945**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis										
Batch 2736854										
QC1205980950 704712003 DUP										
Nitrogen, Nitrate/Nitrite		2.93		3.09	mg/L	5.32		(0%-20%)	AXH3	01/20/25 07:13
QC1205980949 LCS										
Nitrogen, Nitrate/Nitrite	1.00			0.991	mg/L		99.1	(90%-110%)		01/20/25 07:11
QC1205980948 MB										
Nitrogen, Nitrate/Nitrite			U	0.00700	mg/L					01/20/25 07:10
QC1205980951 704712003 PS										
Nitrogen, Nitrate/Nitrite	1.00	0.293		1.23	mg/L		93.7	(90%-110%)		01/20/25 07:14

Notes:

The Qualifiers in this report are defined as follows:

U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
J	Value is estimated
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
H	Analytical holding time was exceeded
<	Result is less than value reported
>	Result is greater than value reported
h	Preparation or preservation holding time was exceeded
R	Sample results are rejected
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
N1	See case narrative
R	Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
B	The target analyte was detected in the associated blank.

QC Summary

Workorder: **704945**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes

x Subaliquot was taken. See Case Narrative for details.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 14, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21205	Project:	SOOP00119
Sample ID:	704945001	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	14-JAN-25 10:19		
Receive Date:	17-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.273	+/-0.523	0.919	1.00	pCi/L			DH1	02/14/25	1055	2737101	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.421	+/-0.295	0.290	1.00	pCi/L			MJ2	02/11/25	0902	2736892	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			67.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: February 14, 2025

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AG21166	Project:	SOOP00119
Sample ID:	704945002	Client ID:	SOOP001
Matrix:	GW		
Collect Date:	14-JAN-25 11:54		
Receive Date:	17-JAN-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		0.981	+/-0.594	0.917	1.00	pCi/L			DH1	02/14/25	1052	2737101	1
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.142	+/-0.260	0.498	1.00	pCi/L			MJ2	02/11/25	0902	2736892	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	
2	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			66.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 14, 2025

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **704945**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2737101										
QC1205981536 704940001 DUP										
Radium-228		1.38		4.10	pCi/L	99.1		(0% - 100%)	DH1	02/14/25 10:54
Uncertainty		+/-0.692		+/-1.00						
QC1205981537 LCS										
Radium-228	28.7			28.7	pCi/L		100	(75%-125%)		02/14/25 10:54
Uncertainty				+/-1.67						
QC1205981535 MB										
Radium-228			U	0.304	pCi/L					02/14/25 10:49
Uncertainty				+/-0.471						
Rad Ra-226										
Batch 2736892										
QC1205981067 704940001 DUP										
Radium-226	U	0.264		0.586	pCi/L	75.7		(0% - 100%)	MJ2	02/11/25 09:01
Uncertainty		+/-0.263		+/-0.411						
QC1205981069 LCS										
Radium-226	27.2			24.3	pCi/L		89.1	(75%-125%)		02/11/25 09:01
Uncertainty				+/-2.28						
QC1205981066 MB										
Radium-226			U	0.299	pCi/L					02/11/25 09:02
Uncertainty				+/-0.324						
QC1205981068 704940001 MS										
Radium-226	137 U	0.264		137	pCi/L		99.6	(75%-125%)		02/11/25 09:01
Uncertainty		+/-0.263		+/-11.6						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded

QC Summary

Workorder: **704945**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

<	Result is less than value reported
>	Result is greater than value reported
UI	Gamma Spectroscopy--Uncertain identification
BD	Results are either below the MDC or tracer recovery is low
h	Preparation or preservation holding time was exceeded
R	Sample results are rejected
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
M	M if above MDC and less than LLD
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
FA	Failed analysis.
UJ	Gamma Spectroscopy--Uncertain identification
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
N1	See case narrative
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.
**	Analyte is a Tracer compound
M	REMP Result > MDC/CL and < RDL
x	Subaliquot was taken. See Case Narrative for details.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Technical Case Narrative
Santee Cooper
SDG #: 704945

General Chemistry

Product: **Carbon, Total Organic**
Analytical Method: SM 5310 B
Analytical Procedure: GL-GC-E-093 REV# 22
Analytical Batch: 2737188

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
704945001	AG21205
704945002	AG21166
1205981753	Method Blank (MB)
1205981754	Laboratory Control Sample (LCS)
1205981755	Laboratory Control Sample Duplicate (LCSD)
1205981766	704945001(AG21205) Sample Duplicate (DUP)
1205981767	704945001(AG21205) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Ion Chromatography**
Analytical Method: EPA 300.0
Analytical Procedure: GL-GC-E-086 REV# 36
Analytical Batch: 2736888

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
704945001	AG21205
704945002	AG21166
1205981049	Method Blank (MB)
1205981050	Laboratory Control Sample (LCS)
1205981051	704940001(AG21151) Sample Duplicate (DUP)
1205981052	704940001(AG21151) Post Spike (PS)
1205981053	704945002(AG21166) Sample Duplicate (DUP)
1205981054	704945002(AG21166) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the

following exceptions.

Technical Information

Sample Dilutions
The following samples 1205981051 (AG21151DUP), 1205981052 (AG21151PS), 1205981053 (AG21166DUP), 1205981054 (AG21166PS), 704945001 (AG21205) and 704945002 (AG21166) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205981051 (AG21151DUP) and 1205981052 (AG21151PS) were diluted to minimize matrix effects on instrument performance. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	704945	
	001	002
Chloride	2X	1X
Sulfate	2X	5X

Miscellaneous Information

Manual Integrations
Samples 1205981051 (AG21151DUP), 1205981052 (AG21151PS) and 704945001 (AG21205) were manually integrated to correctly position the baseline as set in the calibration standards.

Product: **Nitrate/Nitrite Cad Redux Low Level**
Analytical Method: EPA 353.2 Low Level
Analytical Procedure: GL-GC-E-128 REV# 16
Analytical Batch: 2736854

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
704945001	AG21205
704945002	AG21166
1205980948	Method Blank (MB)
1205980949	Laboratory Control Sample (LCS)
1205980950	704712003(NonSDG) Sample Duplicate (DUP)
1205980951	704712003(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following samples 1205980950 (Non SDG 704712003DUP) and 1205980951 (Non SDG 704712003PS) were diluted because target analyte concentrations exceeded the calibration range. The following samples 704945001 (AG21205) and 704945002 (AG21166) in this sample group were diluted due to matrix interference. Dilutions may

be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	704945	
	001	002
Nitrogen, Nitrate/Nitrite	10X	10X

Radiochemistry

Product: **GFPC, Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2737101

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
704945001	AG21205
704945002	AG21166
1205981535	Method Blank (MB)
1205981536	704940001(AG21151) Sample Duplicate (DUP)
1205981537	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Aliquot Reduced
1205981536 (AG21151DUP) Aliquot was reduced due to limited sample volume.

Product: **Lucas Cell, Ra226, Liquid**
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2736892

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
704945001	AG21205
704945002	AG21166
1205981066	Method Blank (MB)
1205981067	704940001(AG21151) Sample Duplicate (DUP)

1205981068	704940001(AG21151) Matrix Spike (MS)
1205981069	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
The matrix spike, 1205981068 (AG21151MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

2/17/25-KAV

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 1/31/25 704945

Send report to lcwillia@santeecooper.com & sherri.levy@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: linda.williams@santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 125915 / JM02.09.601 / 36500

Rerun request for any flagged QC (Yes) No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226/228	F, Cl, SO4	NO2/NO3	TOC
AG21205	PM-1	1/14/25	1019	MDG/DCA	5	P/G	G	GW	1/2/3		X	X	X	X
AG21166	CBW-1	1/14/25	1154	MDG/DCA	5	P/G	G	GW	1/2/3		X	X	X	X
										EPA 300.0 - F, Cl, SO4				
										EPA 353.2 - NO2/NO3 by Cd Red				
										SM5310B - TOC				

Nutrients
- ☐ TOC
- ☐ DOC
- ☐ TP/TPO4
- ☐ NH3-N
- ☐ F
- ☐ Cl
- ☐ NO2
- ☐ Br
- ☐ NO3
- ☐ SO4

Gypsum
- ☐ Wallboard
- ☐ AIM
- ☐ TOC
- ☐ Total metals
- ☐ Soluble Metals
- ☐ Purity (CaSO4)
- ☐ % Moisture
- ☐ Sulfites
- ☐ pH
- ☐ Chlorides
- ☐ Particle Size
- ☐ Sulfur
- ☐ USDA

Coal
- ☐ Short Prox.
  - ☐ % Moisture
  - ☐ Ash
  - ☐ Sulfur
- ☐ BTUs
- **Ultimate**
- ☐ Volatile Matter
- ☐ CHN
- ☐ HGI

Other Analysis:
- ☐ Fineness
- ☐ Particulate Matter

Flyash
- ☐ Ammonia
- ☐ LOI
- ☐ % Carbon
- ☐ Mineral Analysis
- ☐ Sieve
- ☐ % Moisture

NPDES
- ☐ Oil & Grease
- ☐ As
- ☐ TSS

Oil
- ☐ Trans. Oil Quality
  - ☐ %Moisture
  - ☐ Color
  - ☐ Acidity
  - ☐ Dielectric Strength
  - ☐ IFT
  - ☐ Dissolved Gases
- ☐ Used Oil
  - ☐ Flashpoint
  - ☐ Metals (As, Cd, Cr, Ni, Pb, Hg)
- ☐ GOFER

MISC.
- ☐ BTEX
- ☐ Naphthalene
- ☐ VOA/Semi
- ☐ Oil & Grease
- ☐ E. Coli
- ☐ Total Coliform
- ☐ pH
- ☐ Dissolved As
- ☐ Dissolved Fe
- ☐ Rad 226
- ☐ Rad 228
- ☐ PCB

☐ Metals (All)

☐ Ag	☐ Al	☐ As	☐ B
☐ Ba	☐ Be	☐ Ca	☐ Cd
☐ Co	☐ Cr	☐ Cu	☐ Fe
☐ K	☐ Li	☐ Mg	☐ Mn
☐ Mo	☐ Na	☐ Ni	☐ Pb
☐ Sb	☐ Se	☐ Sn	☐ Sr
☐ Ti	☐ Tl	☐ V	☐ Zn
☐ Hg	☐ CrVI	☐ XRF scan	

☐ RCRA (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)

Relinquished by:	Employee #	Received by:	Employee #	Date	Time
[signature]	36851	[signature]	GEL	1/17/25	0917
[signature]	GEL	[signature]	GEL	1-17-25	1555

Sample Receiving (Internal Use Only)

TEMP (°C): _____

Initials: _____

Correct pH: Yes No

Preservative Lot #:

Date/Time/Init for preservative:

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)

Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SOOP	SDG/AR/COC/Work Order: 704945
Received By: QG	Date Received: 1/17/25
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services (Courier) Other n/a

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 (CPM) / mR/Hr. Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?			✓	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: (Wet Ice) Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 0.6
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR1-23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?			✓	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

Radiochemistry - 210

PM (or PMA) review: Initials VMG Date 1/20/25 Page 1 of 1

List of current GEL Certifications as of 14 February 2025

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	525-24-281-19660
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Field Data Sheets

(Note: the color coding is to assist field personnel in determining when the well has stabilized enough to begin sample collection.)

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-1	**83.76**	8.11	**12.0 - 22.0**	1/27/2025	919	25.17

Final GW Depth:	8.22	**depth to GW (ft)**	6.51	**Screen Submerged (ft)?**	
Drawdown:	0.11	**ft**	-0.55	**Silt Buildup (ft)**	
Ferric Iron:	0.9	**mg/L**			
Ferrous Iron:	0.3	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
840	17.89	6.84	196	669	1.6	7.29
845	17.54	6.67	185	652	0	5.53
850	16.93	6.58	162	667	0	5.07
855	16.48	6.58	140	677	0	4.58
900	16.27	6.55	123	684	0	4.21
905	16.1	6.56	112	689	1.7	3.94
910	15.94	6.57	104	690	1.5	3.67
913	15.82	6.58	98	692	1.6	3.29
916	15.73	6.57	94	695	1.7	3.03
919	15.67	6.58	92	692	2.2	3.04

Samples were collected by Melanie Goings and Aaron Hill

Comments/Conditions:

Duplicate at 0924

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-2	**82.04**	6.47	**12.0 - 22.0**	1/27/2025	1039	25.13

Final GW Depth:	6.49	**depth to GW (ft)**	8.4	**Screen Submerged (ft)?**	
Drawdown:	0.02	**ft**	-0.26	**Silt Buildup (ft)**	
Ferric Iron:	0.32	**mg/L**			
Ferrous Iron:	0.9	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1003	15.55	7.09	158	560	9.1	3.52
1008	14.95	7.04	164	558	9.6	3.02
1013	15.56	6.99	96	557	6.1	2.65
1018	15.59	6.95	59	558	5.1	2.33
1023	15.55	6.98	48	560	4.8	2.13
1028	15.88	6.99	37	560	3.8	1.95
1033	16	6.97	31	561	3.2	1.87
1036	15.86	6.99	26	561	3.5	1.79
1039	15.89	6.99	24	561	3.3	1.72

Samples were collected by Melanie Goings and Aaron Hill

Comments/Conditions:

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-3	**82.75**	7.19	**10.0 - 20.0**	1/27/2025	1212	23.05

Final GW Depth:	7.19	**depth to GW (ft)**	5.53	**Screen Submerged (ft)?**	
Drawdown:	0	**ft**	-0.33	**Silt Buildup (ft)**	
Ferric Iron:	2.12	**mg/L**			
Ferrous Iron:	1.24	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1120	14.15	7.12	142	640	115	4.29
1125	14.2	6.91	14	611	107	2.35
1130	13.94	6.92	9	611	86.7	2.19
1135	13.64	6.91	6	613	54.2	2.09
1140	13.51	6.9	6	617	46.7	2.02
1145	13.32	6.9	5	619	31.3	1.8
1148	13.1	6.93	5	607	34.2	2.07
1151	13.69	6.9	0	625	36.2	1.94
1154	13.97	6.93	-9	623	28.8	1.85
1157	13.88	6.95	-10	625	19.2	1.84
1200	13.83	6.95	-14	624	18.1	1.82
1203	13.67	6.93	-13	621	14.8	1.81
1206	13.79	6.93	-15	627	13.7	1.77
1209	13.87	6.93	-17	629	12.5	1.74
1212	13.83	6.92	-18	624	13.9	1.74

Samples were collected by Melanie Goings and Aaron Hill

Comments/Conditions:

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-4	82.74	7.04	12.0 - 22.0	1/27/2025	1335	24.49

Final GW Depth:	7.03	depth to GW (ft)	7.47	Screen Submerged (ft)?	
Drawdown:	-0.01	ft	0.02	Silt Buildup (ft)	
Ferric Iron:	0	mg/L			
Ferrous Iron:	0.02	mg/L			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1240	14.02	7.25	118	576	11	4.36
1245	13.93	7.15	167	544	5	3.88
1250	13.55	7.17	212	538	8.5	3.58
1255	13.16	7.15	261	547	10	3.49
1300	12.9	7.17	298	548	9.6	3.39
1305	12.8	7.16	329	551	8.4	3.01
1308	12.78	7.18	336	550	9.1	3.37
1311	13.34	7.15	370	556	12.8	3.21
1314	13.54	7.15	380	557	12.2	3.09
1317	13.69	7.14	388	553	9.4	3.07
1320	13.75	7.16	395	552	8.1	3.01
1323	13.79	7.16	401	552	6.6	2.89
1326	13.86	7.16	412	552	6.2	2.79
1329	13.87	7.16	415	552	6.2	2.76
1332	13.97	7.16	423	551	6.1	2.7
1335	14.03	7.14	425	552	5.6	2.79

Samples were collected by Melanie Goings and Aaron Hill

Comments/Conditions:

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well
CLF1B-5	**81.09**	5.16	**12.0 - 22.0**	1/27/2025	1454	25.03

Final GW Depth:	5.27	**depth to GW (ft)**	9.41	**Screen Submerged (ft)?**	
Drawdown:	0.11	**ft**	-0.455	**Silt Buildup (ft)**	
Ferric Iron:	N/A*	**mg/L**			
Ferrous Iron:	0.5	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1406	14.57	6.92	472	1060	53.5	3.55
1411	14.75	6.91	510	1040	42.9	3.13
1416	14.95	6.91	518	1040	23.8	2.94
1421	15.18	6.91	512	1040	16.4	2.79
1426	15.34	6.91	423	1040	17.1	2.68
1431	15.32	6.91	142	1040	10	2.25
1436	15.25	6.92	107	1040	7.9	2.25
1439	15.22	6.92	101	997	6.6	2.61
1442	15.2	6.91	70	1020	13.3	2.45
1445	15.24	6.91	61	1030	6.3	2.32
1448	15.39	6.9	51	1030	6.5	2.28
1451	15.52	6.89	45	1030	6.5	2.17
1454	15.6	6.89	43	1030	7.3	2.18

Samples were collected by Melanie Goings and Aaron Hill

Comments/Conditions:

NA*--Supply issues/out of Ferric Iron Reagent Packs

Cross Generating Station
Background Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CBW-1	**85.80**	10.95	**14-24**	1/14/2025	1154	26.84

Final GW Depth:	10.95	**depth to GW (ft)**	5.68	**Screen Submerged (ft)?**	
Drawdown:	0	**ft**	-0.21	**Silt Buildup (ft)**	
Ferric Iron:	0	**mg/L**			
Ferrous Iron:	0.05	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1100	17.04	4.83	82	150	0	4.88
1105	17.18	4.67	215	150	0	4.38
1110	17.52	4.65	243	149	0	4.36
1115	17.52	4.65	257	148	0	3.63
1120	17.73	4.65	274	148	0	3.86
1125	17.6	4.65	285	148	0	1.89
1130	17.54	4.66	291	148	0	1.67
1133	17.47	4.67	296	148	0	2.61
1136	17.51	4.67	299	147	0	2.13
1139	17.55	4.67	301	147	0	3.4
1142	17.75	4.68	304	147	0	2.67
1145	17.81	4.68	307	147	0	3.1
1148	17.97	4.67	310	147	0	2.71
1151	17.96	4.67	313	147	0.5	2.91
1154	18.05	4.68	315	147	0	2.9

Samples were collected by Melanie Goings and Dan Alexander

Comments/Conditions:

Cross Generating Station
Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
PM-1	83.24	8.46	4-24	1/14/2025	1019	26.5

Final Well Depth:	8.87	depth to GW (ft)	-2.84	Screen submerged (ft)?	
Drawdown:	0.41	ft	-0.88	Silt Buildup (ft)	
Ferric Iron	+++	mg/L			
Ferrous Iron	+++	mg/L			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
944	17.54	5.15	5	147	18.1	3.12
948	16.72	5.25	6	139	10.5	2.49
954	16.47	5.23	6	127	10.2	2.21
959	16.25	5.2	7	120	9.7	2.86
1004	16.5	5.2	7	120	13.3	2.93
1009	16.8	5.19	8	115	11.4	1.6
1014	16.97	5.2	8	116	8	1.59
1019	17.08	5.2	8	115	7.9	1.54

Samples were collected by Melanie Goings and Dan Alexander
Comments/Conditions:

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-1	**83.76**	7.78	**12.0 - 22.0**	6/9/2025	917	25.11

Final GW Depth:	7.88	**depth to GW (ft)**	6.84	**Screen Submerged (ft)?**	
Drawdown:	0.1	**ft**	-0.49	**Silt Buildup (ft)**	
Ferric Iron:	+++	**mg/L**			
Ferrous Iron:	0	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
857	19.23	6.38	106	1040	6	1.78
902	19.57	6.5	36	1050	2.4	1.31
907	19.83	6.54	20	1060	1.9	1.24
912	20.09	6.55	14	1060	1.5	1.34
917	20.25	6.57	11	1050	1.6	1.3

Samples were collected by: Ashton Poole, Evan Amick, Emma Barton

Comments/Conditions: Dup was collected @ 922

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-2	**82.04**	6.18	**12.0 - 22.0**	6/9/2025	1020	25.05

Final GW Depth:	6.19	**depth to GW (ft)**	8.69	**Screen Submerged (ft)?**	
Drawdown:	0.01	**ft**	-0.18	**Silt Buildup (ft)**	
Ferric Iron:	1.21	**mg/L**			
Ferrous Iron:	0.27	**mg/L**	0		

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
952	21.17	6.77	-37	853	76.9	1.54
957	21.1	6.78	-75	864	65.9	0.69
1002	20.89	6.8	-75	864	58	0.59
1007	20.87	6.81	-76	863	53.9	0.54
1012	20.94	6.81	-76	862	48.3	0.51
1017	20.89	6.82	-75	862	49.9	0.49
1020	20.85	6.81	-74	861	48.5	0.47

Samples were collected by: Ashton Poole, Evan Amick, Emma Barton

Comments/Conditions:

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-3	**82.75**	7.03	**10.0 - 20.0**	6/9/2025	1143	22.98

Final GW Depth:	7.02	**depth to GW (ft)**	5.69	**Screen Submerged (ft)?**	
Drawdown:	-0.01	**ft**	-0.26	**Silt Buildup (ft)**	
Ferric Iron:	3.11	**mg/L**			
Ferrous Iron:	2.81	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1042	22.13	6.68	-78	1030	74.1	1.35
1047	22.03	6.69	-95	1050	61.7	0.85
1052	22.09	6.69	-99	1040	58.3	0.56
1057	22.06	6.71	-101	1040	52.5	0.65
1102	22.04	6.7	-101	1040	52.4	0.5
1107	21.97	6.7	-102	1030	44.2	0.55
1110	22.03	6.7	-102	1030	46.2	0.7
1113	22.05	6.71	-102	1030	39.5	0.68
1116	22.1	6.73	-102	1030	32.8	0.48
1119	22.07	6.7	-102	1030	33.3	0.71
1122	22.19	6.7	-102	1030	28.8	0.7
1125	22.11	6.71	-102	1020	26.4	0.47
1128	22.07	6.71	-102	1020	24.1	0.64
1131	22.39	6.71	-103	1030	20.1	0.59
1134	22.55	6.72	-103	1020	6.2	0.68
1137	22.69	6.73	-103	1030	7.3	0.61
1140	22.8	6.72	-102	1030	4.8	0.6
1143	22.88	6.72	-102	1030	4.5	0.61

Samples were collected by: Ashton Poole, Evan Amick, Emma Barton

Comments/Conditions:

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-4	**82.74**	7.17	**12.0 - 22.0**	6/9/2025	1251	24.43

Final GW Depth:	7.19	**depth to GW (ft)**	7.34	**Screen Submerged (ft)?**	
Drawdown:	0.02	**ft**	0.08	**Silt Buildup (ft)**	
Ferric Iron:	0.04	**mg/L**			
Ferrous Iron:	0	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1208	23.8	6.83	33	870	45.7	1.49
1213	23.44	6.85	34	876	39.3	0.74
1218	23.68	6.85	37	858	33.2	0.55
1223	23.4	6.86	40	850	28.7	0.39
1228	23.42	6.87	42	845	19.6	0.37
1233	23.57	6.87	44	843	12.6	0.33
1236	23.8	6.87	45	839	11.3	0.4
1239	23.88	6.88	45	835	8.6	0.45
1242	24.05	6.88	45	833	5.3	0.41
1245	23.69	6.89	46	831	4.4	0.29
1248	23.47	6.87	48	826	6.7	0.29
1251	23.75	6.88	48	826	5.4	0.3

Samples were collected by: Ashton Poole, Evan Amick, Emma Barton

Comments/Conditions:

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well
CLF1B-5	**81.09**	5.64	**12.0 - 22.0**	6/9/2025	1337	24.75

Final GW Depth:	5.8	**depth to GW (ft)**	8.94	**Screen Submerged (ft)?**	
Drawdown:	0.16	**ft**	-0.17	**Silt Buildup (ft)**	
Ferric Iron:	2.67	**mg/L**			
Ferrous Iron:	1.8	**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1317	28.28	6.77	-34	1370	43.6	0.75
1322	27.61	6.7	-60	1430	33.4	0.41
1327	27.39	6.69	-64	1430	30.8	0.33
1332	27.43	6.69	-67	1430	29.8	0.3
1337	27.58	6.69	-68	1410	27.1	0.28

Samples were collected by: Ashton Poole, Evan Amick, Emma Barton

Comments/Conditions:

Cross Generating Station
Background Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CBW-1	**85.80**	9.97	**14-24**	6/3/2025	1021	26.74
Final GW Depth:	9.99	**depth to GW (ft)**		6.66	**Screen Submerged (ft)?**	
Drawdown:	0.02	**ft**		-0.11	**Silt Buildup (ft)**	
Ferric Iron:	*N/A	**mg/L**				
Ferrous Iron:	*N/A	**mg/L**				

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
953	24.15	4.81	82	244	1.6	3.12
958	24.41	4.62	193	252	0.8	1.5
1003	24.39	4.6	227	248	0.6	2.17
1008	24.33	4.62	247	246	1.4	1.97
1013	24.52	4.64	262	245	1	1.88
1018	24.62	4.67	272	244	2.2	1.85
1021	24.73	4.69	277	244	3.3	1.81

Samples were collected by Ashton Poole and Evan Amick

Comments/Conditions:

*Pump was turned off before iron was tested

Cross Generating Station
Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
PM-1	**83.24**	7.62	4-24	6/3/2025	N/A	26.34

Final Well Depth:	7.93	**depth to GW (ft)**	-2	**Screen submerged (ft)?**
Drawdown:	0.31	**ft**	-0.72	**Silt Buildup (ft)**
Ferric Iron	N/A	**mg/L**		
Ferrous Iron	N/A	**mg/L**		

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
904	19.33	4.99	58	209	18.4	1.08
909	19.96	4.99	43	204	24.3	0.91
914	20.54	4.94	44	204	12.2	0.71
919	21.04	5.09	36	206	2.2	0.63
924	21.5	5.12	36	199	1.2	0.57
929	22.02	5.18	33	196	0.4	0.52
932	22.33	5.21	31	196	0.1	0.49

Samples were collected by Ashton Poole and Evan Amick

Comments/Conditions:

****Redo of Field Data due to calibration failure of Horriba on 6/2/25**

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-1	**83.76**	9.21	**12.0 - 22.0**	8/25/2025	1110	25.15

Final GW Depth:	9.31	**depth to GW (ft)**	5.41	**Screen Submerged (ft)?**	
Drawdown:	0.1	**ft**	-0.53	**Silt Buildup (ft)**	
Ferric Iron:		**mg/L**			
Ferrous Iron:		**mg/L**			

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1034	20.95	6.54	70	1040	9.5	2.24
1039	21.56	6.6	34	1030	2.5	1.45
1044	23.73	6.64	16	1040	2.9	1.25
1049	24.39	6.65	7	1020	1.1	0.86
1054	24.95	6.65	7	1010	0.9	0.71
1059	25.66	6.66	8	1010	0	0.62
1104	25.97	6.67	8	994	0	0.54
1107	26.2	6.68	6	991	0	0.52
1110	26.52	6.64	8	992	0	0.51

Samples were collected by: Catie Gill and Justin Kirk

Comments/Conditions: Dup was collected @ 1115

Cross Generating Station
Class 3 Landfill Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
CLF1B-2	**82.04**	7.75	**12.0 - 22.0**	8/25/2025	1234	24.8

Final GW Depth:	7.77	**depth to GW (ft)**	7.12	**Screen Submerged (ft)?**	
Drawdown:	0.02	**ft**	0.07	**Silt Buildup (ft)**	
Ferric Iron:		**mg/L**			
Ferrous Iron:		**mg/L**	0		

Time	Temp (celcius)	pH (units)	Eh ORP (mV)	Spec Cond (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1146	29.75	6.96	-164	788	20.9	1.61
1151	28.05	6.88	-186	796	19.5	0.61
1156	27.26	6.85	-193	803	46.6	0.63
1201	27.03	6.85	-171	805	53.5	0.53
1206	26.64	6.84	-152	806	51.1	0.46
1211	26.33	6.85	-138	809	43.7	0.42
1216	26.04	6.85	-129	811	32.1	0.39
1219	25.88	6.85	-123	813	22.5	0.38
1222	25.82	6.86	-121	814	18.5	0.37
1225	25.74	6.86	-117	815	14.7	0.38
1228	25.71	6.86	-113	818	10.8	0.35
1231	25.7	6.86	-110	819	9.5	0.36
1234	25.66	6.86	-108	817	8.9	0.36

Samples were collected by: Catie Gill and Justin Kirk

Comments/Conditions: