2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH PONDS A AND B WINYAH GENERATING STATION

by Santee Cooper Moncks Corner, South Carolina

January 31, 2022 (Amended March 2, 2022)

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Table No. Title

1 Summary of Analytical Results

Figure No.	Title
1	Location of Ash Pond A & B Groundwater Monitoring Wells for CCR
	Compliance
2	Potentiometric Map February – March 2021
3	Potentiometric Map July – August 2021

Appendix A – Statistical Analysis

Appendix B – Laboratory Analytical Results

Appendix C – Well Installation Records

1. Annual Groundwater Monitoring Report Summary

The South Carolina Public Service Authority (Santee Cooper) has prepared this 2021 Annual Groundwater Monitoring Corrective Action Report for Ash Ponds A and B at the Winyah Generating Station (WGS). This 2021 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).

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

At the start of the current annual reporting period (January 1, 2021), Ash Ponds A and B continued to operate under an assessment monitoring program in accordance with § 257.95. As required by § 257.93(h)(2), statistically significant levels (SSLs) of arsenic, lithium, and molybdenum were identified in one or more downgradient wells. Therefore, an assessment of corrective measures and an evaluation of the nature and extent of contamination was initiated per §257.95(g)(3) on April 15, 2019 and completed on September 11, 2019. A public meeting was held on December 10, 2019 to discuss six remedial alternatives per § 257.96(e). A remedy has not yet been selected pursuant to § 257.97; however, semi-annual progress reports detailing progress in selecting the remedy were completed in March and September 2021 for these units. For the 2021 assessment monitoring events, SSLs of arsenic, lithium, and molybdenum were identified in monitoring wells WAP-9, WAP-17, WAP-18, WAP-19, and WAP-20. At the end of the current annual reporting period (December 31, 2021), Ash Ponds A and B remained in the assessment monitoring program.

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)

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.

Ash Ponds A and B at WGS are existing surface impoundments and are subject to the groundwater monitoring and corrective action requirements set forth by the EPA in 40 CFR § 257.90 through § 257.98. This document satisfies the requirement under § 257.90(e) which requires the CCR Unit Owner/Operator to prepare an Annual Groundwater Monitoring and Corrective Action Report.

2.2 40 CFR § 257.90(e) - 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 2021 for Ash Ponds A & B at WGS 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 § 257.95, is provided in this report.

2.2.1 Status of the Groundwater Monitoring and Corrective Action Program

As required by § 257.93(h)(2), the statistical evaluation of the detected Appendix IV constituents identified SSLs exceeding groundwater protection standards (GWPS), specifically arsenic, lithium, and molybdenum at both Ash Pond A and Ash Pond B. Therefore, an assessment of corrective measures and an evaluation of the nature & extent of contamination was initiated per §257.95(g)(3). Additional groundwater sampling during the nature & extent evaluation showed that the extent of the SSLs is confined to the uppermost aquifer on-site and does not extend north and east of the Cooling Water Pond. This continues to be the case through 2021. An Assessment of Corrective Measures report (CMA) was completed on September 11, 2019 and is available on the publicly available CCR website. A public meeting was held on December 10, 2019 to discuss the six alternatives presented in the CMA for a remedy per § 257.96(e).

In 2021, the assessment monitoring program was continued. Consistent with previous results, arsenic, lithium, and molybdenum continue to be the only Appendix IV constituents present in groundwater at SSLs above the GWPS.

2.2.2 Key Actions Completed

The following key actions were completed in 2021:

- Prepared 2020 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 rounds of groundwater samples (February/March and August) in accordance with § 257.95(b) and § 257.95(d)(1) and recorded the concentrations in the facility's operating record as required by § 257.95(d)(1). Groundwater monitoring results are summarized in Table 1 and laboratory analytical reports are provided in Appendix B.
- Completed statistical evaluation to determine statistically significant exceedances of GWPS for Appendix IV in accordance with § 257.93(h)(2) (Appendix A).

- Installed replacement groundwater monitoring wells WAP-17, WAP-18, and WAP-22 after proper abandonment by a South Carolina Certified Well Driller. Well installation records are provided in Appendix C.
- Additional characterization of nature and extent § 257.95(g)(1).
- Completed two Semi-Annual Progress Reports on Remedy Selection § 257.97 (a), 257.105 (h)(12).
- Completed the delineation of the bottom of contaminated in-situ soil § 257.95(g)(1).

2.2.3 Problems Encountered

At Ash Pond A in 2021, landfill construction impacted three (3) monitoring wells: WAP-17, WAP-18, and WAP-22. WAP-17 is a downgradient monitoring well. The original WAP-17 was located on the dike crest of Ash Pond A which was impacted by widening the dike road to accommodate landfill construction traffic. Monitoring wells WAP-18 and WAP-22 were also impacted by construction equipment. The protective posts for these two adjacent wells on the dike crest of Ash Pond A were damaged. The integrity of the wells themselves may have also been impacted.

2.2.4 Actions to Resolve Problems

Monitoring well WAP-17 was properly abandoned and replaced by a South Carolina certified well driller in April 2021. The well was abandoned in place at its original location on the dike crest and replaced at the toe of the dike in the same vicinity as the original well. Monitoring wells WAP-18 and WAP-22 were properly abandoned and replaced by a South Carolina certified well driller in December 2021. The wells were abandoned in place in their original location on the dike crest and replaced at the toe of the dike in the same vicinity as the original wells.

2.2.5 Project Key Activities for Upcoming Year

Key activities to be completed in 2022 include the following:

- Utilize the existing groundwater model to evaluate how pond closure with the
 construction of the new landfill may affect groundwater flow direction. This will provide
 the ability to anticipate and proactively address any potential changes to the
 groundwater monitoring network for ongoing compliance.
- Conduct semi-annual groundwater monitoring consistent with § 257.98(a)(1) and § 257.95(d)(1).
- Statistical analysis of Assessment Monitoring analytical data to determine if SSLs of the detected Appendix IV constituents are present.
- Additional characterization of nature and extent as needed § 257.95(g)(1).
- Update the existing groundwater model to calibrate the model to existing conditions and examine the fate and transport characteristics of arsenic in groundwater.
- Semi-Annual Progress Report(s) as required by § 257.97(a), 257.105(h)(12), if needed.
- Selection of the remedy and preparation of Selection of Remedy Report including schedules for implementing and completing remedial activities § 257.97(d).
- Initiate Groundwater Remedial Activities within 90 days of selecting the remedy which includes a reevaluation of the current groundwater monitoring plan § 257.98(a).
- Develop the Corrective Action Groundwater Monitoring Program § 257.98(a)(1).

- Field implementation of the remedy with any associated additional groundwater monitoring activities, as appropriate.
- Prepare the 2022 annual report; place it in the record as required by § 257.105(h)(1), notify the state [§ 257.106(d)]; and post to website [§ 257.107(d)].

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 Ash Ponds A and B are 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;

At Ash Pond A in 2021, landfill construction impacted three (3) monitoring wells: WAP-17, WAP-18, and WAP-22. WAP-17 is a downgradient monitoring well installed in the uppermost aquifer. The original WAP-17 was located on the dike crest of Ash Pond A which was impacted by widening the dike road to accommodate landfill construction traffic. Monitoring well WAP-17 was properly abandoned and replaced by a South Carolina certified well driller in April 2021. The well was abandoned in place at its original location on the dike crest and replaced at the toe of the dike in the same vicinity as the original well. Well installation records are provided in Appendix C.

Monitoring wells WAP-18 and WAP-22 were also impacted by construction equipment. WAP-18 is a downgradient monitoring well installed in the uppermost aquifer and WAP-22 is a downgradient monitoring well that extends into the deeper portion of the aquifer to provide additional vertical extent information. The protective posts for these two adjacent wells on the dike crest of Ash Pond A were damaged. The integrity of the wells themselves may have also been impacted. Monitoring wells WAP-18 and WAP-22 were properly abandoned and replaced by a South Carolina certified well driller in December 2021. The wells were abandoned in place in their original location on the dike crest and replaced at the toe of the dike in the same vicinity as the original wells. Well installation records are provided in Appendix C.

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 § 257.95(b) and § 257.95(d)(1), 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, and monitoring data obtained for the

groundwater monitoring program for Ash Ponds A and B is presented in Table 1 of this report. In addition, and in accordance with § 257.95(d)(3), Table 1 includes the groundwater protection standards established under § 257.95(d)(2). Laboratory analytical results, along with field sampling forms, are also provided as Appendix B.

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

The groundwater monitoring program remained in assessment monitoring for the duration of 2021. A summary of the evolution of the monitoring programs is provided in this section.

As required by § 257.93(h) a statistical analysis of the Appendix III constituents was completed by January 15, 2018. Baseline analytical data collected from background monitoring wells WBW-1 and WAP-1 were combined to develop Upper Tolerance Limits (UTLs). The UTLs for each Appendix III constituent were compared to the analytical results for the downgradient monitoring wells WAP-9, WAP-10, WAP-17, WAP-18, and WAP-19. Constituents with analytical results exceeding the UTLs were identified as SSIs over background for the respective Appendix III constituent. This statistical analysis determined that statistically significant increases of boron, calcium, chloride, fluoride, pH, sulfate, total and dissolved solids were present downgradient of Ash Ponds A and B. An evaluation of alternate sources was initiated and completed on April 13, 2018 as provided in § 257.94(e)(2). A source causing the SSI over background levels other than the CCR unit was not identified at that time and an Assessment Monitoring program was initiated on July 16, 2018.

The Assessment Monitoring program has been established to meet the requirements of 40 CFR § 257.95. As required by § 257.93(h)(2), the statistical evaluation of the detected Appendix IV constituents determined a statistically significant exceedance of groundwater protection standards, specifically for arsenic, lithium, and molybdenum at Ash Ponds A & B. Therefore, per §257.95(g)(3), an assessment of corrective measures and an evaluation of the nature and extent of contamination was initiated on April 15, 2019. The CMA report was created considering the presence and distribution of arsenic, lithium, and molybdenum, Ash Ponds A and B's configuration and operational history, hydrogeologic setting, and the results of the evaluation of the nature and extent of contamination available at the time of the CMA.

Based on the statistical evaluation for the 2021 data, no new SSLs were identified (see Appendix A). For both Ash Ponds A and B, arsenic, lithium, and molybdenum were identified as SSLs the February/March monitoring event. However, molybdenum was not identified as an SSL during the August monitoring events for either Ash Pond A or B.

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.

Actions completed in the interim between the public meeting and final remedy selection included: reclaiming CCR material from Ash Pond A for beneficial use and/or excavating for disposal in the on-site

Class 3 Landfill, delineating the bottom of ash, and delineating the bottom of any contaminated in-situ soil via laboratory analysis of soil borings. The delineations of the bottom of ash and vertical extent of soil impacts have provided additional information relevant to the selection of remedy process.

A planned activity for continuing the remedy selection process in 2022 includes updating the existing groundwater model. The groundwater model was prepared as part of the assessment of corrective measures process in 2019. The update to the model will include calibrating the model to existing conditions and providing a closer examination of the fate and transport of arsenic in groundwater. This will help demonstrate that monitored natural attenuation (MNA), which is part of the preferred remedy, will be successful.

Groundwater flow rate and direction are provided as Figures 2 and 3 for each sampling event as specified in § 257.93(c).

TABLES

TABLE 1 - Summary of Analytical Results Winyah Generating Station Ash Ponds A and B Assessment Monitoring

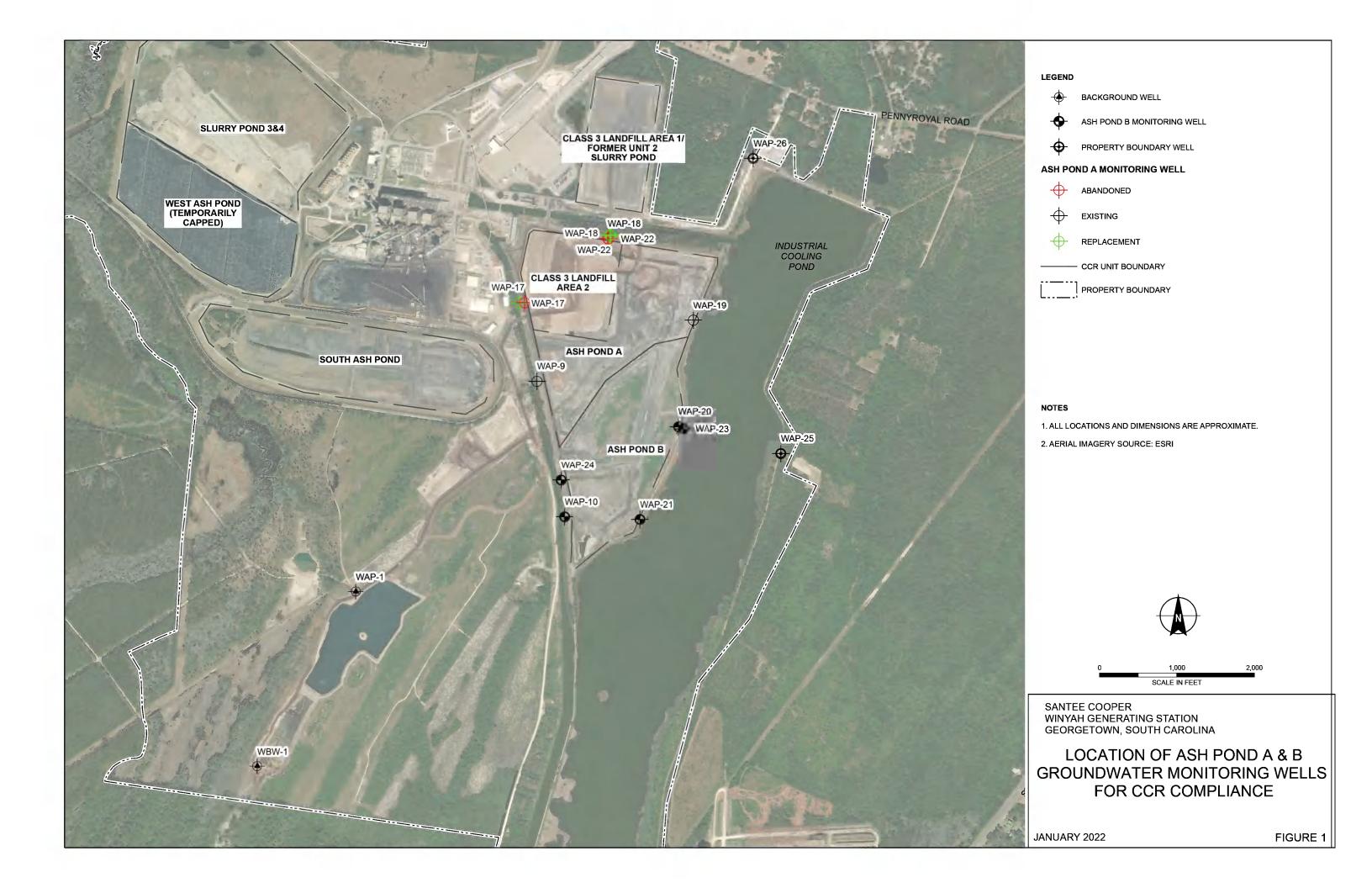
						Α	ppendix	III Cons	tituents										Ap	pendix	IV Const	tuents										Field Par	ameters			
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	-	Event	Number	Unit	uail	mail	mo/l	mo/l	mod	mail	SII	uail	uall	uall	ueil	uall	uall	uell	med	uad	uali	uall	uall	nCi/I	nCi/I	Calculation	uall	uali	Feet (btoc)	Feet (msl)	SII	uS	r	mv	NTU	ppm
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		ground 2/15/2021			<15							<5.0	<5.0		<0.50			<0.50			<10	<0.2	<1		1.24	1 1.69			3.32	28.6		28	14,41		C	0.7
		ground 7/20/2021 samples	AF0908	3	<15 2	1.3	2 4.62 2 2	<0.10	0 5.8 2	4 68.79 2 2	5 4.77 2 2	<5.0 2	<5.0 2	23.7 2	<0.50 2	<0.50	2 :	2.3	<0.10 2	<1.0 2	<10 2	<0.2	<1	0.602	0.024	0.626	3 <10.0 2	2 2	18.27 2 2	13.7	7 4.77 2 2	42	24.72 2	121	2	0.6
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AP-20	_	ssment 8/10/2021			1800							<5.0	19								41				1.62				21.78	21.3		784		-84		
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		ssment 2/17/2021			2400							<5.0	<5.0		<0.50	<0.50) < <u>5</u> .0			<1.0	<10	<0.2	<1		1.46	3 2.13		0 <1.0	18.86			479		35	C	0.5
AP-21		ssment 8/3/2021	AF0907	7	2200	76.	3 11.5	<0.10	0 29.	5 357.5	5 6.13	1	<5.0	28.4	1			<0.50	<0.10	- 1	<10	1	<1	0.436	4.54	1 4.98		0 0	21.46	21.6	6.13	455	23.67	-57	21	0.4
		IA/NE 2/17/2021 IA/NE 8/3/2021									6.73		<5.0 <5.0								11 12		<1:						20.2 21.83	23.00 21.4					12.8	
AP-23	total:	samples			0		0 0) (0	0 (0 2	0	2	0	0	0) (0	0	0	2	C		2 0		0	1	0	2	2	2 2	2	2	2	2	
		IA/NE 3/2/2021									7.59		<5.0								<10		<1						6.25							
AP-24	total:	IA/NE 8/2/2021 samples	AF0908	0	0		0 0) (0	0 0	7.53 0 2	0	<5.0 2	0	0) (0	0	0	<10 2		<1	2 0		0		0	7.57 2	21.2	2 7.53 2 2	340 2	27.4 2	-166 2	6.3	3 0,4 2
		IA/NE 3/4/2021	AE9641	0							6.93	$\overline{}$	<5.0								<10		<1						8.05	19.09	6.93	348	18.69	-115	i c	0.6
AP-25	CM	IA/NE 8/10/2021									7.05		<5.0						á		<10		<1						7.92							1.0
		samples			U		U U		V	<u> </u>	2	U		0	U		T	, 0	U		2			4 0		, 0		. 0	2		2	2	2	2	2	
		IA/NE 3/2/2021 IA/NE 8/10/2021									5.03 4.72		<5.0 <5.0								<10 <10		<1: <1:						6.52 7.49						3.1	-
ni -20	1 Olar	samples	ALLOSOB.	4	_				-		4.72		\0.0				1				×10		51	4					1.49	20.0	4.72	184	21,04	103	3	1 0.5

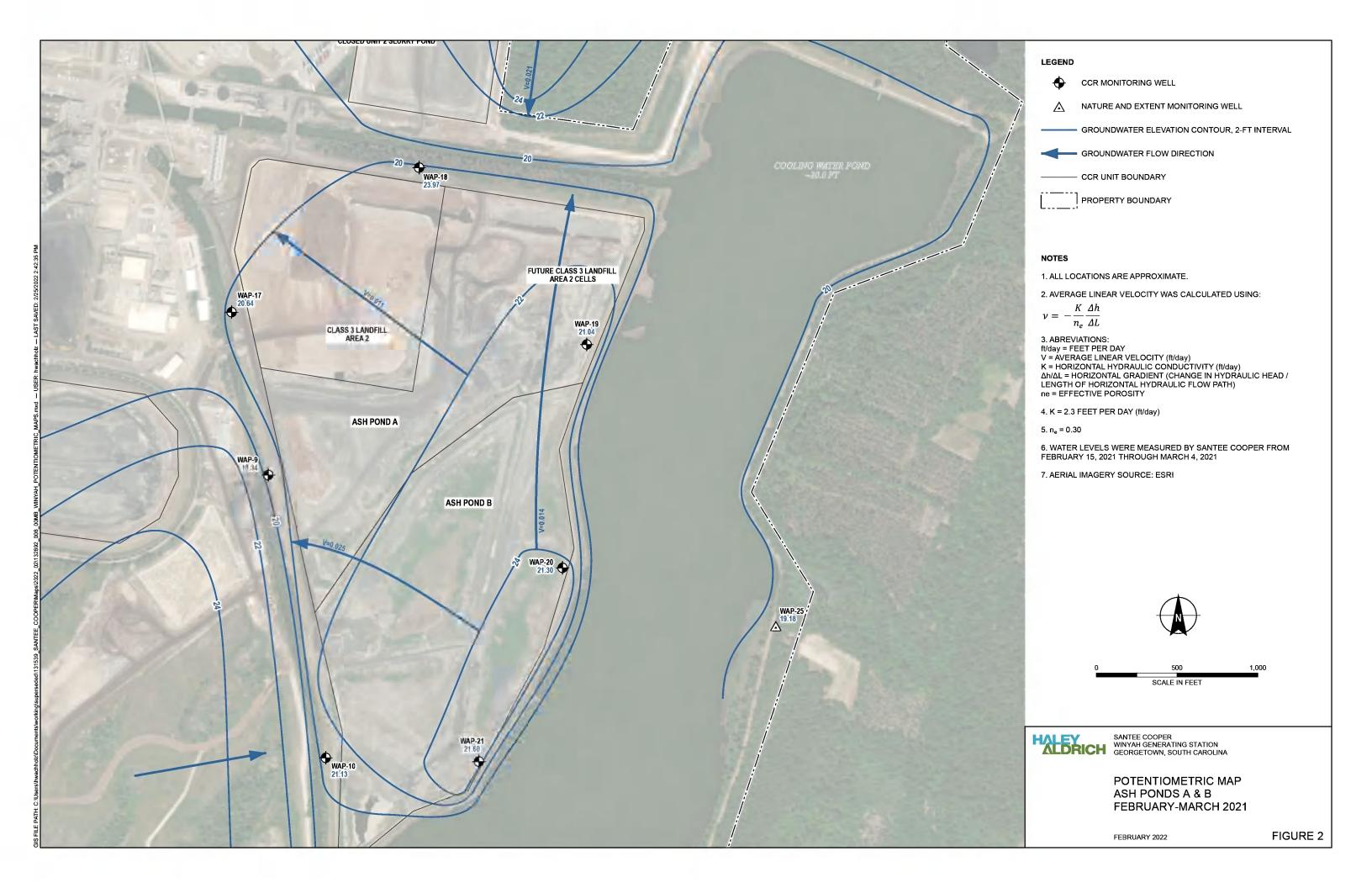
All groundwater samples collected from the monitoring wells for Assessment and CMA/NE Monitoring in 2021 for the constituents listed in Appendix IV of the EPA CCR Rule (40 CFR) were analyzed by South Carolina Certification # 08552), GEL Laboratories, LLC (Certification # 10120), and Rogers & Callcot, Inc. (Certification # 23105001).

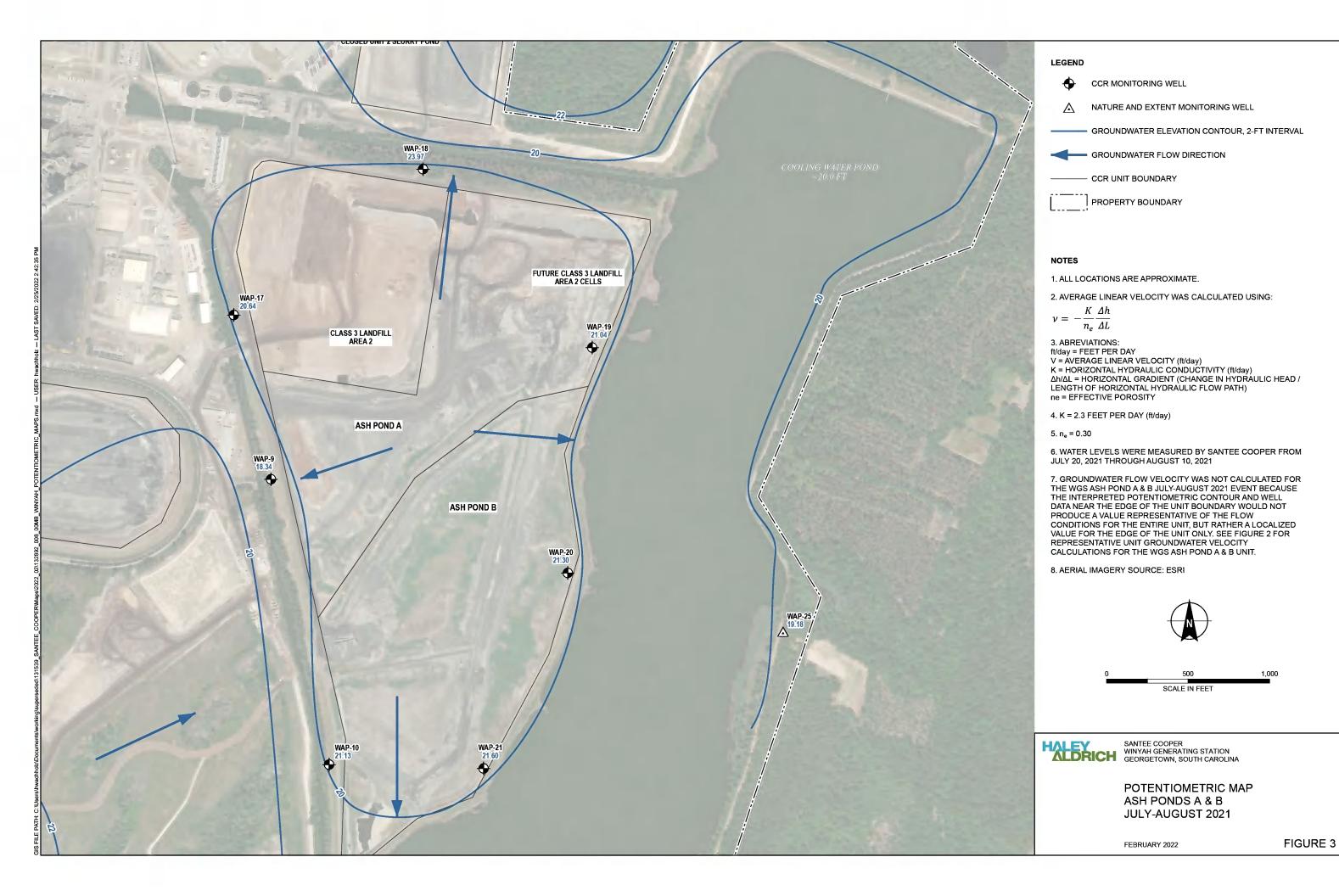
^{1.} Some groundwater monitoring wells are sampled for both Federal CCR and State Permit program compliance. Applicable analytical results from the State Permit program have been included in this summary lable. All background and downgradient compliance wells have been sampled to meet § 257.95.

2. The Corrective Measures Assessment/Nature & Extent (CMA/NE) wells were not sampled to comply with § 257.95(g)(iv) as the CCR Unit had already moved out of the CMA/NE monitoring program. These wells continue to provide additional insight to the nature & extent of the plume during corrective action. Moving forward, all CMA/NE wells will be sampled to comply with § 257.95(g)(iv) or § 257.98(a)(1).

FIGURES







Appendix A – Statistical Analysis



HALEY & ALDRICH, INC. 400 Augusta Street Suite 100 Greenville, SC 29601 864.214.8750

TECHNICAL MEMORANDUM

July 28, 2021 File No. 132892-013

SUBJECT: 2021 Semi-annual Groundwater Assessment Monitoring Data

Statistical Evaluation

Winyah Generating Station

Ash Pond A

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained for the February 2021 semi-annual assessment monitoring event for Ash Pond A at the Winyah Generating Station (WGS). The statistical evaluation discussed in this memorandum was conducted to continue to evaluate the Appendix IV groundwater monitoring constituents for the presence of statistically significant levels (SSLs) above Groundwater Protection Standards (GWPS) consistent with the requirements in 40 CFR § 257.95.

Utilizing interwell evaluations, data from the semi-annual groundwater sampling events for the downgradient monitoring wells were compared to the GWPS established from the background dataset for the upgradient monitoring wells (WAP-1 and WBW-1) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level (RSL), or background concentration. The results of the groundwater assessment monitoring statistical evaluation are discussed below and provided in Table I.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). The statistical method used for these evaluations, tolerance limit (TL), was certified by Haley & Aldrich, Inc. on October 14, 2017. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above GWPS. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The most recent groundwater sampling event from each compliance well was compared to the corresponding GWPS to determine if a SSL existed.

STATISTICAL EVALUATION

An interwell evaluation, which compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, was used. Because the CCR unit has

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transitioned into assessment monitoring, statistical evaluations were not conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The parametric TL methods were used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. 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 TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for all detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the February 2021 semi-annual sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if a SSL was present. The LCL is the lower end of the confident interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location (WAP-1 and WBW-1) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009,* background concentrations were updated for the February 2020 semi-annual sampling event based on statistical evaluation of analytical results collected through February 2020. The background dataset will be updated again in February 2022 per the Unified Guidance.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the February 2021 semi-annual assessment monitoring event were compared to their



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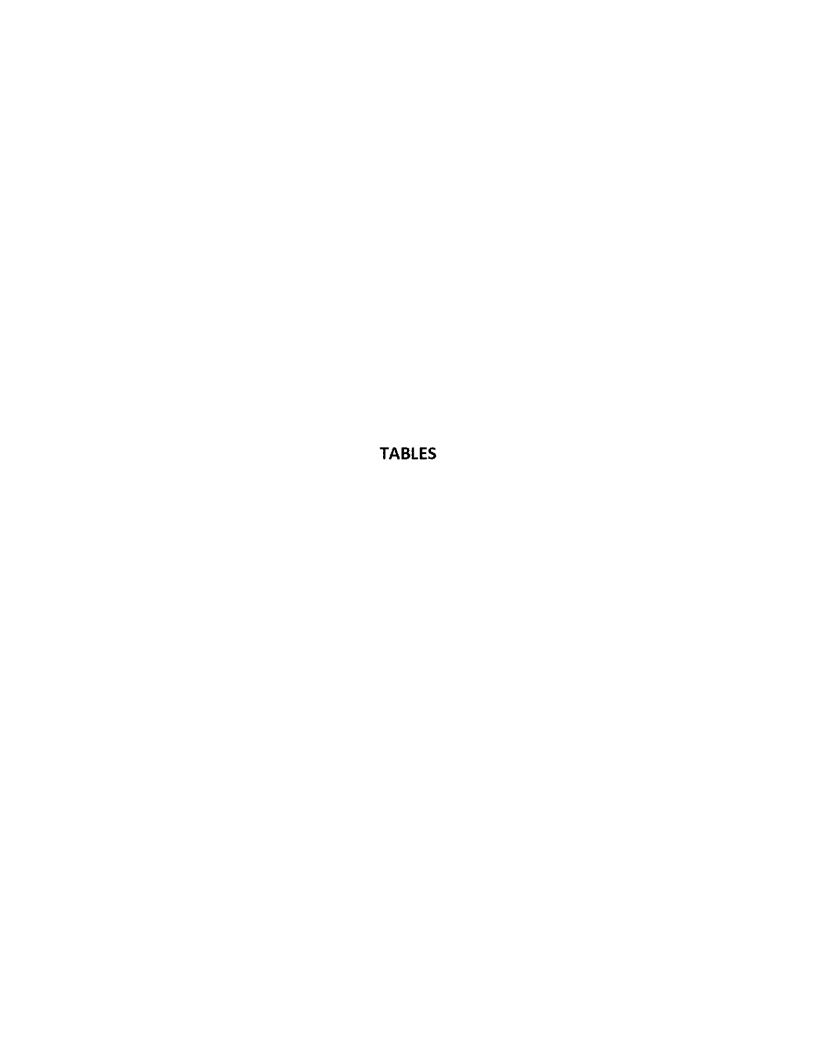
respective GWPS (Table I). A sample concentration greater than the GWPS is considered to represent a SSL. Based on previous compliance sampling events and statistical evaluations, interwell comparisons were utilized for all downgradient wells and constituents. Consistent with previous results, arsenic, lithium, and molybdenum continue to be the only Appendix IV constituents present in groundwater at SSLs above GWPS.

Closure by removal has been initiated at Ash Pond A and is anticipated to be completed in 2025. During closure activities, a short-term increase in the concentrations of Appendix IV SSLs is possible but these spikes in concentration should rapidly decrease once the closure is complete and equilibrium groundwater conditions are restored.

Tables:

Table I – Summary of Assessment Monitoring Statistical Evaluation – February 2021





																					Inter	r-well Analysis			
Location Id	Frequency of Detection	Percent Non-Detects	Range of Non- Delect	Mean	50th Percentile (Median)	95th Percentile	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL	Report Result Unit	Detection Exceedances (Y/N)	Number of Delection Exceedances	Number of Non-Delection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Well*	February 2021 Concentration	Delect?	Upper Tolerance Limit (mg/L)	SSI	GWPS (Higher of MCL/RSL or Background Limit) (mg/L)	SSL
					1	(C	CR Appendix-l	V: Antimony, Tol	tal (mg/L)																
WBW-1	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA	NA			0.025		0.025	
WAP-01	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/i	N	0	1	NA	NA	NA							
WAP-09	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.005	N.		N		FALSE
WAP-L7 WAP-L8	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L mg/L	N N	0	1	NA NA	NA NA	NA NA	NA NA	0.005	N N		N N		FALSE
WAP-L9	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA NA	NA.	NA NA	0.005	N		N		FALSE
	0722						CCR Appendix	IV: Arsenic, Tota	and the same				William I							0.000					
WBW-1	0/15	100%	0.003-0.005	0.00473	0.005	0.005		4.952E-07	0.0007037	0.1487	0.01	mg/L	N	0	0	NA	NA	NA	NA.			0.008		0.010	
WAP-01	1/17	94%	0.003-0.005	0.00496	0.005	0.00566	0.0083	0.000001179	0.001086	0.219	0.01	mg/l	N	0	0	Yes	No	NA	1444			0.008		0.010	
WAP-09	L7/17	0%	-	0.239	0.229	0.4112	0.42	0.008985	0.09479	0.3972	0.01	mg/L	Y	17	0	No	No	Decreasing	Normal	0.101	Υ		Y		TRUE
WAP-LB	L6/16	0%	-	0.134	0.L2	0.21	0.24	0.001798	0.04241	0.3176	0.01	mg/L	Y	16	0	No No	No No	Decreasing	Normal	0.108	Y		Y		TRUE
WAP-LB WAP-L9	L5/15 L5/15	0%	-	0.566 0.104	0.33	1.383 0.2385	0.256	0.2009	0.4482	0.7913	0.01	mg/L mg/L	y	15 15	0	Yes	No	Stable Stable	Normal	0.442	Y		· · · · · · · · · · · · · · · · · · ·		(TRUE)
111111111111111111111111111111111111111	13/13		400	5.25	2.0370		- pro-	-IV: Barium, Tota	- 7 %	5152.13	5.52		0.00					310010		0.120					(1102)
WBW-1	L5/15	0%	-	0.0126	0.013	0.01565	0.016	0.000008808	0.002968	0.2348	2	mg/L	N	0	0	No	No	Decreasing							
WAP-01	L7/17	0%	-	0.0314	0.025	0.0628	0.094	0.0005614	0.02369	0.7541	2	mg/L	N	0	0	No	No	Stable	Non-parametric			0.094		2.0	
WAP-09	L8/18	0%	-	0.0757	0.06925	0.116	0.15	0.0004988	0.02233	0.2952	2	mg/L	N	0	0	Yes	No	Decreasing	Non-parametric	0.058	Υ		N		FALSE
WAP-L7	L7/17	0%	-	0.0502	0.048	0.07624	0.1	0.00033	0.01817	0.362	2	mg/L	N	0	0	Yes	No	Decreasing	Normal	0.027	Y		N		FALSE
WAP-LB WAP-L9	L5/15 L5/15	0%	-	0.0909	0.0915	0.1024	0.11	0.00008804	0.009383	0.1032	2	mg/L mg/L	N N	0	0	Yes	No No	Stable Decreasing	Normal Non-parametric	0.092	Y		N N		FALSE
TYMC-L7	r3/12	0.70		v.u323	0.031			V: Beryllium, Tol		0.3330		mg/L	19	U	U	140	1 140	репеанія	Non-parametric	0.040	*		IV.		FALSE
WBW-1	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/l	N	0	0	NA	NA	NA							
WAP-01	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA NA			0.0005		0.0	
WAP-09	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WAP-L7	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N:		N		FALSE
WAP-18	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA NA	NA	NA NA	NA NA	0.0005	N'		N		FALSE
WAP-L9	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005	CP Annandiy I	0 V: Cadmium, Tot	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N.		N		FALSE
WBW-1	0/14	100%	0.0005-0.0005	0.0005	0.0005	0.0005	CK Appendix-	0	O O	0	0.005	mg/L	N	0	0	NA	NA	NA							
WAP-01	0/16	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	- NA			0.0005		0.0	
WAP-09	0/16	100%	0.0005-0.002	0.000594	0.0005	0.000875		1.406E-07	0.000375	0.6316	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WAP-L7	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WAP-L8	1/12	92%	0.0005-0.0005	0.000515	0.0005	0.00058L	0.00068	2.7E-09	0.00005196	0.1009	0.005	mg/l	N	0	0	NA	NA	NA	NA	0.00068	Y		Y		FALSE
WAP-L9	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005	CB Annondiu B	O Tal	0	0	0.005	mg/l	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WBW-1	0/14	100%	0.005-0.005	0.005	0.005	0.005	ск аррепам-п	V: Chromium, Tol	1.118E-10	2.237E-08	0.1	mg/L	N	0	0	NA	NA	NA							
WAP-01	0/14	100%	0.005-0.005	0.005	0.005	0.005		7.228E-21	8.502E-11	0.000000017	0.1	mg/L	N	0	0	NA	NA NA	NA.	NA NA			0.005		0.1	
WAP-09	0/16	100%	0.005-0.01	0.00531	0.005	0.00625		0.000001562	0.00L25	0.2353	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005	N.	-	N		FALSE
WAP-L7	0/13	100%	0.005-0.005	0.005	0.005	0.005		1.807E-20	1.344E-10	2.688E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005	N.		N		FALSE
WAP-LB	0/12	100%	0.005-0.005	0.005	0.005	0.005		1.478E-20	1.216E-10	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005	N		N		FALSE
WAP-L9	0/12	100%	0.005-0.005	0.005	0.005	0.005		1.478E-20	1.216E-L0	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005	N		N		FALSE
WBW-1	alar	100%	0.0005-0.0005	0.0005	0.0005	0.0005	CCR Appendix	c-IV: Cobalt, Total	(mg/L)	0	0.006	mg/L	N	0	0	NA	NA	NA						200	
WAP-01	0/15 2/15	87%	0.0005-0.0005	0.000573	0.0005	0.000863	0.0015	6.635E-08	0.0002576	0.4498	0.006	mg/L	N	0	0	NA NA	NA NA	NA NA	- NA			0. 00 L5		0.006	
WAP-09	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA	NA	NA.	NA	0.0005	N		N		FALSE
WAP-L7	0/14	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WAP-18	3/13	77%	0.0005-0.0005	0.000544	0.0005	0.000748	0.00085	1.096E-08	0.0001047	0.1925	0.006	mg/L	N	0	0	Yes	No	Increasing	Non-parametric	0.00085	Y		N		FALSE
WAP-L9	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005	(cen's	O dia Ba Fluorida de	0	0	0.006	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WBW-1	1/15	94%	0.1-0.1	0.1	0.1	0.1	0.1	dix-IV: Fluoride (r 1.85E-18	ng/L) 1.36E-09	1.36E-08	4	mg/L	N	0	0	No	No	NA							
WAP-01	L/16 2/16	88%	0.1-0.1	0.104	0.1 0.L	0.1325	0.14	0.0001462	0.01209	0.1159	4	mg/L	N N	0	0	No	No	NA NA	Non-parametric			0.140		4.0	
WAP-09	L/16	94%	0.1-0.1	0.101	0. L	0.1025	0.11	0.00000625	0.0025	0.02484	4	mg/L	N	0	0	No	No	NA	Non-parametric	0.100	N		N		FALSE
WAP-L7	L2/17	29%	0.1-0.1	0.158	0.14	0.264	0.32	0.004228	0.06502	0.4109	4	mg/L	N	0	0	No	No	Stable	Normal	0.100	N		N		FALSE
WAP-LB	L5/16	6%	0.1-0.1	L.15	1.27	1.91	2	0.2994	0.5472	0.4766	4	mg/L	N	0	0	No	No	increasing	Non-parametric	1.390	Y		Y		FALSE
WAP-L9	L2/16	25%	0.1-0.1	0.211	0.17	0.415	0.58	0.01793	0.1339	0.6357	4	mg/L	N	0	0	No	No	increasing	Non-parametric	0. L70	Y		Υ		FALSE
NATIONAL -	at:	4 8501	0.001.5.00	0.05555			CCR Appendi	x-IV: Lead, Total		4	0.000	4.		100		411	47.5	,							
WBW-1 WAP-01	0/14	100% 75%	0.00 L-0.01 0.00 L-0.01	0.00186	0.001	0.005125	0.00456	0.000005786		1.295	0.015	mg/l mg/l	N N	0	0	NA Ves	NA No	NA Decreasing	Non-parametric			0.010		0.015	
WAP-01	4/16 0/16	100%	0.001-0.01 0.001-0.0025	0.00205	0.001	0.00392	0.00430	0.000003	0.0005477	0.4382	0.015	mg/L	N	0	0	NA NA	NA NA	NA	NA	0.001	N		N		FALSE
WAP-L7	0/13	100%	0.00 L-0.0025	0.00123	0.001	0.0025		3.173E-07	0.0005633	0.4577	0.015	mg/L	N	0	0	NA	NA	NA	NA.	0.001	N		N		FALSE
WAP-LB	0/12	100%	0.00 L-0.0025	0.00125	0.001	0.0025		3.409E-07	0.0005839	0.4671	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001	N		N		FALSE
WAP-19	0/12	100%	0.001-0.0025	0.00125	0.001	0.0025		3.409E-07	0.0005839	0.4671	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001	N		N		FALSE
					1		CCR Appendix	IV: Lithium, Tota	The same of the sa																
WBW-1	0/15	100%	0.01-0.01	0.01	0.01	0.01	0.5555	3.098E-20	1.76E-10	1.76E-08	0.04	mg/L	N	0	0	NA	NA	NA	Non-parametric			0.012		0.040	
WAP-01 . WAP-09	L/15 L5/15	93%	0.01-0.01	0.0101	0.01	0.01048	0.01L6 0.13	1.707E-07 0.0004207	0.000413L 0.02051	0.04088 0.26L	0.04	mg/L mg/L	N Y	15	0	No Yes	No No	Stable Decreasing	Normal	0.069	V		Υ		TRUE
WAP-U9	L5/15 L6/16	0%		0.334	0.305	0.6187	0.13	0.0004207	0.1732	0.5181	0.04	mg/L	Y	16	0	Yes	No	Decreasing	Normal	0.069 0.130	Y		Y		TRUE
				0.262	0.24	0.442	0.54	0.01243	0.1115	0.4256	0.04	mg/L	Y	15	0	No	No	Increasing	Normal	0.540	Y				TRÜE
WAP-LB	L5/15	0%	-	0.202	0.24	0.772	0.0.	0.000	012220	0.4230	0.04			1.5						0.540			,		(1110.0)

Assessment Monitoring Statistical Analysis Summary

Prepared: July 21, 2021

						(0	CR Appendix	V: Mercury, Tol	al (mg/L)																
WBW-1	0/13	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA				0.0002		0.002	
WAP-01	0/13	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA NA			0.0002		0.002	
WAP-09	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.00020	N		N		FALSE
WAP-17	0/13	100%	0.0002-0.00024	0.000203	0.0002	0.000216		1.231E-10	0.00001109	0.05463	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.00020	N:		N		FALSE
WAP-18	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.00020	N:		N		FALSE
WAP-19	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.00020	N.		N		FALSE
						CCF	Appendix-IV:	Molybdenum, T	otal (mg/L)																
WBW-1	0/15	100%	0.01-0.05	0.0127	0.01	0.022		0.0001067	0.01033	0.8154	0.1	mg/L	N	0	0	NA	NA	NA	NA NA			0.050		0.1	
WAP-01	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-10	1.76E-08	0.1	mg/L	N	0	0	NA	NA	NA	IVA			0.050		0.1	
WAP-09	9/15	40%	0.01-0.01	0.0163	0.011	0.03106	0.034	0.00006608	0.008129	0.4989	0.1	mg/L	N	0	0	No	No	Decreasing	Non-parametric	0.010	N		N		FALSE
WAP-17	15/15	0%	-	0.0743	0.0492	0.182	0.35	0.006136	0.07833	1.055	0.1	mg/L	Y	2	0	Yes	No	Increasing	Non-parametric	0.059	Y		· Y		FALSE
WAP-18	14/14	0%	-	0.44	0.1525	1.86	2.9	0.6279	0.7924	1.799	0.1	mg/L	Y	8	0	Yes	No	Increasing	Non-parametric	2.900	Y		Y		TRUE
WAP-19	13/14	7%	0.05-0.05	0.04	0.041	0.0557	0.057	0.000165	0.01284	0.3212	0.1	mg/L	N	0	0	No	No	Increasing	Normal	0.041	Y		N		FALSE
						CC	R Appendix-IV	Radium-226 & 2	228 (pCi/L)																
WBW-1	8/15	47%	0-4	3.07	4	4.302	4.33	2.396	1.548	0.5042	5	pCi/L	N	0	0	No	No	Decreasing	- Non-parametric			5.97		5.97	
WAP-01	10/15	33%	4-4	3.43	4	5.809	5.97	2.591	1.61	0.4694	5	pCi/L	Y	2	0	No	No	Decreasing	Non-parametri.			3.57		3.57	
WAP-09	12/15	20%	4-4	3.6	4	5.102	5.34	1.735	1.317	0.3664	5	pCi/L	Y	1	0	No	No	Decreasing	Non-parametric	3.650	Y		N		FALSE
WAP-17	8/15	47%	4-4	3.02	4	4.726	5.51	3.158	1.777	0.5882	5	pCi/L	Y	1	0	Yes	No	Decreasing	Non-parametric	0.390	Y		N		FALSE
WAP-18	8/15	47%	4-4	3.31	4	4.299	4.46	1.518	1.232	0.3721	5	pCi/L	N	0	0	Yes	No	Decreasing	Non-parametric	1.540	Y		N		FALSE
WAP-19	6/15	60%	4-4	3.25	4	4.075	4.25	1.366	1.169	0.3592	5	pCi/Ł	N	0	0	No	No	Decreasing	Non-parametric	2.180	Y		N		FALSE
						C	CR Appendix-	V: Selenium, Tol	al (mg/L)																
WBW-1	0/14	100%	0.01-0.02	0.0114	0.01	0.02		0.00001319	0.003631	0.3177	0.05	mg/L	N	0	0	NA	NA	NA	- NA			0.020		0.05	
WAP-01	0/16	100%	0.01-0.02	0.0112	0.01	0.02		0.00001167	0.003416	0.3036	0.05	mg/L	N	0	0	NA	NA	NA				5.520		0.00	
WAP-09	0/17	100%	0.005-0.05	0.0132	0.01	0.026		0.0001029	0.01015	0.7666	0.05	mg/L	N	0	1	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-17	0/13	100%	0.01-0.02	0.0115	0.01	0.02		0.0000141	0.003755	0.3255	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-18	0/12	100%	0.01-0.02	0.0117	0.01	0.02		0.00001515	0.003892	0.3336	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-19	0/12	100%	0.01-0.02	0.0117	0.01	0.02		0.00001515	0.003892	0.3336	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
						(0	CR Appendix-	V: Thallium, Tota	al (mg/L)																
WBW-1	0/13	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	- NA			0.001		0.002	
WAP-01	0/13	100%	0.0001-0.001	0.000931	0.001	0.001		6.231E-08	0.0002496	0.2682	0.002	mg/L	N	0	0	NA	NA	NA	1.11						
WAP-09	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001	N		N		FALSE
WAP-17	0/13	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001	N		N		FALSE
WAP-18	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	O	NA	NA	NA	NA	0.001	N		N		FALSE
WAP-19	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001	N		N		FALSE



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TECHNICAL MEMORANDUM

July 28, 2021 File No. 132892-013

SUBJECT: 2021 Semi-annual Groundwater Assessment Monitoring Data

Statistical Evaluation

Winyah Generating Station

Ash Pond B

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained for the February 2021 semi-annual assessment monitoring event for Ash Pond B at the Winyah Generating Station (WGS). The statistical evaluation discussed in this memorandum was conducted to continue to evaluate the Appendix IV groundwater monitoring constituents for the presence of statistically significant levels (SSLs) above Groundwater Protection Standards (GWPS) consistent with the requirements in 40 CFR § 257.95.

Utilizing interwell evaluations, data from the groundwater sampling events for the downgradient monitoring wells were compared to the GWPS established from the background dataset for the upgradient monitoring wells (WAP-1 and WBW-1) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level (RSL), or background concentration. The results of the groundwater assessment monitoring statistical evaluation are discussed below and provided in Table I.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). The statistical method used for these evaluations, tolerance limit (TL), was certified by Haley & Aldrich, Inc. on October 14, 2017. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above GWPS. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The most recent groundwater sampling event from each compliance well was compared to the corresponding GWPS to determine if a SSL existed.

STATISTICAL EVALUATION

An interwell evaluation, which compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, was used. Because the CCR unit has

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transitioned into assessment monitoring, statistical evaluations were not conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The parametric TL methods were used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. 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 TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for all detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the February 2021 sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if a SSL was present. The LCL is the lower end of the confident interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location (WAP-1 and WBW-1) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009,* background concentrations were updated for the February 2020 semi-annual sampling event based on statistical evaluation of analytical results collected through February 2020. The background dataset will be updated again in February 2022 per the Unified Guidance.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the February 2021 semi-annual assessment monitoring event were compared to their respective GWPS (Table I). A sample concentration greater than the GWPS is considered to represent a



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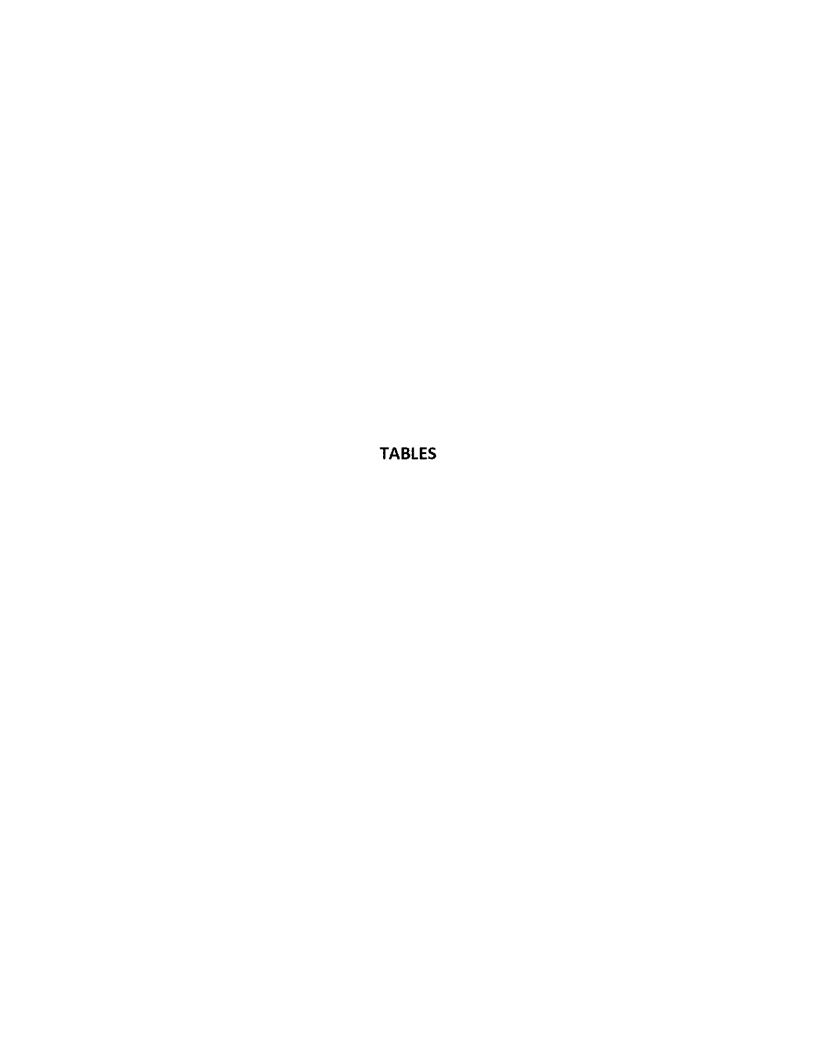
SSL. Based on previous compliance sampling event and statistical evaluations, interwell comparisons were utilized for all downgradient wells and constituents. Consistent with previous results arsenic, lithium and molybdenum continue to be the only Appendix IV constituents present in groundwater at SSLs above GWPS.

Closure by removal has been initiated at Ash Pond B and is anticipated to be completed in 2025. During closure activities, a short-term increase in the concentrations of Appendix IV SSLs is possible but these spikes in concentration should rapidly decrease once the closure is complete and equilibrium groundwater conditions are restored.

Tables:

Table I – Summary of Assessment Monitoring Statistical Evaluation – February 2021





																					Inter-we	ell Analysis			
ocation Id	Frequency of Delection	Percent Non-Detects	Range of Non-Detect	Mean	50th Percentile (Median)	95th Percentile	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL	Report Result Unit	Detection Exceedances (Y/N)	Number of Detection Exceedances	Number of Non-Detection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Well*	February 2021 Concentration	Detect?	Upper Tolerance Limit (mg/L)	SSI	GWPS (Higher of MCL/RSL or Background Limit) (mg/L)	SSL
							CCR Appendix-I	V: Antimony, Tol	al (mg/L)																
WBW-1	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA	- NA			0.025		0.025	
WAP-01	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA	115			0.023		0.023	
WAP-LO	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.005	N		N	_	FALSE
WAP-20	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA NA	NA	NA	NA NA	0.005	N		N	_	FALSE
WAP-21	0/12	100%	0.005-0.025	0.00667	0.005	0.014	CCD Adia	0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.005	N		N		FALSE
WBW-1	0/15	100%	0.003-0.005	0.00473	0.005	0.005	сск аррених	-IV: Arsenic, Tota 4.952E-07	0.0007037	0.1487	0.01	mg/L	N	0	0	NA.	NA	NA							
WAP-01	L/17	94%	0.003-0.005	0.00496	0.005	0.00566	0.0083	0.000001179	0.001086	0.219	0.01	mg/L	N	0	0	Yes	No	NA NA	- NA			0.008		0.010	
WAP-LO	LO/17	41%	0.005-0.005	0.0296	0.0059	0.14	0.14	0.001983	0.04453	1.506	0.01	mg/L	Y	7	0	Yes	No	Decreasing	Non-parametric	0.005	N		N		FALSE
WAP-20	L5/15	0%	-	0.0746	0.0663	0.1269	0.143	0.00L235	0.03514	0.4708	0.0 L	mg/L	Y	15	0	No	No	Decreasing	Normal	0.024	Y	-	Y		TRUE
WAP-21.	0/15	100%	0.003-0.005	0.00473	0.005	0.005		4.952E-07	0.0007037	0. L487	0.01	mg/L	N	0	0	NA	NA	NA	NA	0.005	N		N		FALSE
							CCR Appendix	-IV: Barium, Tola	l (mg/t)		Y ()			7											
WBW-1	L5/15	0%	-	0.0126	0.013	0.01565	0.016	808800000.0	0.002968	0.2348	. 2	mg/L	N	0	0	No	No	Decreasing	Non-parametric			0.094		2.000	
WAP-01	L7/17	0%	-	0.0314	0.025	0.0628	0.094	0.0005614	0.02369	0.7541	2	mg/L	N	0	0	No	No	Stable	Non-barametric			0.054		2.000	
WAP-LO	L7/17	0%	-	0.277	0.269	0.3432	0.396	0.00 L462	0.03824	0. L381	2	mg/L	N	0	0	Yes	No	Stable	Non-parametric	0.298	Y		Y		FALSE
WAP-20	L5/15	0%	-	0.0463	0.0389	0.07708	0.088	0.0003485	0.01867	0.4033	2	mg/L	N	0	0	No	No	Decreasing	Normal	0.035	Y		N	_	FALSE
WAP-21	15/15	0%	-	0.0614	0.0592	0.122	0.15	0.001.078	0.03283	0.5343	2	mg/L	N	0	0	Yes	No	Decreasing	Normal	0.020	Y		N		FALSE
MAIDDE: 2	272	a man'r	0.0000 0.0000	0.000			CCR Appendix-	V: Beryllium, Tol	al (mg/L)	24.1	- 05		-60					***							
WBW-1	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		U C	O C	0	0.004	mg/L	N N	0	0	NA NA	NA NA	NA NA	- NA			0.0005		0.004	
WAP-01 WAP-LO	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L mg/L	N N	0	0	NA NA	NA NA	NA NA	NA.	0.0000	N		N		FALSE
WAP-LO WAP-20	0/12 0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		a	0	0	0.004	mg/L	N N	0	0	NA NA	NA NA	NA NA	NA NA	0.0005	N N		N N		FALSE
WAP-21	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA NA	NA NA	NA NA	NA NA	0.0005	N N		N		FALSE
	0,12	1					CCR Appendix-	V: Cadmium, Tol	al (mg/L)				127												
WBW-1	0/14	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA							
WAP-01	0/16	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA.	NA	NA	- NA			0.0005		0.005	
WAP-LO	0/16	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA.	NA	NA.	NA	0.0005	N		N		FALSE
WAP-20	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WAP-21	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
				-			CCR Appendix-I	V: Chromium, Tol	2000		1000		- 4												
WBW-1	0/14	100%	0.005-0.005	0.005	0.005	0.005		1.25 LE-20	1.118E-LO	2.237E-08	0. L	mg/L	N	0	0	NA	NA NA	NA	- NA			0.0050		0.100	
WAP-01	0/16	100%	0.005-0.005	0.005	0.005	0.005		7.228E-21	8.502E-11	0.000000017	0.1	mg/L	N	0	0	NA NA	NA NA	NA NA				4			51105
WAP-LO	0/16	100%	0.005-0.005	0.005	0.005	0.005		7.228E-21	8.502E-11	0.000000017	0.1	mg/L	N	0	0	NA NA	NA NA	NA NA	NA NA	0.005	N	-	N N	-	FALSE
WAP-20 WAP-21	0/12 0/12	100%	0.005-0.005	0.005	0.005	0.005		1.478E-20 1.478E-20	1.216E-L0 1.216E-10	2.432E-08 2.432E-08	0.1 0.L	mg/L mg/L	N N	0	0	NA NA	NA NA	NA NA	NA NA	0.005	N N	-	N N		FALSE
VMF-21	0/12	100%	0.003-0.003	0.003	0.003	0.003	CCR Appendi	-IV: Cobalt, Total	~	2.4322-06	0.1	mg/L	IN.	0	9	IVA	INA	NA.	NA	0.003	N				TALL
WBW-1	0/15	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA	NA	NA							
WAP-01	2/15	87%	0.0005-0.0005	0.000573	0.0005	0.000863	0.0015	6.635E-08	0.0002576	0.4498	0.006	mg/L	N	0	0	NA.	NA	NA.	- NA			0.0015		0.006	
WAP-LO	0/15	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA.	NA	NA	NA	0.0005	N		N		FALSE
WAP-20	L3/15	13%	0.0005-0.001	0.00101	0.001	0.00152	0.0018	1.083E-07	0.0003291	0.325	0.006	mg/L	N	0	0	No	No	Decreasing	Normal	0.0005	N		N		FALSE
WAP-21	1/15	93%	0.0005-0.01	0.001L5	0.0005	0.003553	0.00079	0.000005996	0.002449	2.124	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.0005	N		N		FALSE
					2. 7.	-	CCR Appen	lix-IV: Fluoride (r	ng/L)		-		-												
WBW-1	L/16	94%	0.1-0.1	0.1	0. L	0.1	0.1	1.85E-L8	1.36E-09	1.36E-08	4	mg/L	N	0	0	No	No	NA	Non-parametric			0.140		4.00	
WAP-01	2/16	88%	0.1-0.1	0.104	0.1	0.1325	0.14	0.0001462	0.01209	0.1159	4	mg/L	N	0	0	No	No	NA				5.1-40		50	
WAP-LO	2/16	88%	0.1-0.1	0.104	0.1	0.1275	0.15	0.0001729	0.01315	0.L26	4	mg/L	N	0	0	Yes	No	Stable	Non-parametric	0.100	N		N		FALSE
WAP-20	L6/16	0%	-	0.582	0.6	0.745	0.79	0.01697	0.1303	0.2236	4	mg/L	N	0	0	No	No	Increasing	Normal	0.650	Υ		Y	-111111111111111111111111111111	FALSE
WAP-21 .	0/16	100%	0.1-0.1	0.1	0. L	0.1	CCB A	1.85E-Lff	1.36E-09	1.36E-08	4	mg/L	N	0	0	NA	NA	NA	NA.	0.100	N		N		FALSE
WBW-1	0/14	100%	0.00 L-0.01	0.00186	0.001	0.005125		x-IV: Lead, Total 0.000005786	(mg/L) 0.002405	1.295	0.015	mg/L	N	0	0	NA.	NA	NA							
WAP-01	0/14 4/16	75%	0.00L-0.01	0.00186	0.001	0.005125	0.00456	0.000005406	0.002325	1.132	0.015	mg/L mg/L	N	0	0	Yes	No No	Decreasing	- Non-parametric			0.0100		0.015	
WAP-UI	0/16	100%	0.00L-0.01	0.00203	0.001	0.00332	5.00430	0.000005 L	0.002323	1.132	0.015	mg/L	N	0	0	NA NA	NA NA	NA.	NA	0.001	N		N		FALSE
WAP-20	0/10	100%	0.00L-0.0025	0.00175	0.001	0.0025		3.409E-07	0.0005839	0.4671	0.015	mg/L	N	0	0	NA NA	NA NA	NA.	NA NA	0.001	N N		N		FALSE
WAP-21	0/12	100%	0.001-0.0025	0.00125	0.001	0.0025		3.409E-07	0.0005839	0.4671	0.015	mg/L	N	0	0	NA	NA	NA.	NA NA	0.001	N N		N		FALSE
						100	CCR Appendix	IV: Lithium, Tola																والمستوي المستوير	
WBW-1	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-LO	1.76E-08	0.04	mg/L	N	0	0	NA	NA	NA				0.717		2017	
WAP-01	L/15	93%	0.01-0.01	0.010L	0.01	0.01048	0.01L6	1.707E-07	0. 00 0413L	0.04088	0.04	mg/L	N	0	0	No	No	Stable	Non-parametric			0.012		0.040	
WAP-LO	L5/15	0%	-	0.026 L	0.023	0.03715	0.0466	0.00004966	0.007047	0.2704	0.04	mg/L	Y	1	0	Yes	No	Stable	Non-parametric	0.026	Y		Y		FALSE
	L5/15	0%	-	0.264	0.25	0.3668	0.406	0.004201	0.06482	0.2458	0.04	mg/L	Y	15	0	No	No	Stable	Normal	0.290	Y		Y		TRUE
WAP-20		1.000/	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-LO	1.76E-08	0.04	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-20 WAP-21	0/15	100%							al tomortis																
WAP-21 .							CCR Appendix	IV: Mercury, Tola	ar funB\r1							_									
WAP-21 WBW-1	0/13	100%	0.0002-0.0002	0.0002	0.0002	0.0002	CCR Appendix	0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA NA			0.0002		0.0020	
WBW-1 WBP-01	0/13 0/13	100%	0.0002-0.0002 0.0002-0.0002	0.0002	0.0002	0.0002 0.0002	CCR Appendix	0	0	0	0.002	mg/L	N	0	0	NA	NA	NA.				0.0002		0.0020	
WAP-21 WBW-1	0/13	100%	0.0002-0.0002			0.0002	CCR Appendix	0	0	-									NA NA	0.0002 0.0002	N N	0.0002	N N	0.0020	FALSE FALSE

Winyah Ash Pond B

Assessment Monitoring Statistical Analysis Summary

Prepared: July 15, 2021

						CCI	R Appendix-IV	/: Molybdenum,	Total (mg/L)																
WBW-1	0/15	100%	0.01-0.05	0.0127	0.01	0.022		0.0001067	0.01033	0.8154	0.1	mg/L	N	0	0	NA	NA	NA	NA.			0.050		0.10	
WAP-01	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-10	1.76E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA NA			0.050		0.10	
WAP-10	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-10	1.76E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA NA	0.010	N		N		FALSE
WAP-20	15/15	0%	-	0.155	0.136	0.3291	0.397	0.01018	0.1009	0.652	0.1	mg/L	Y	10	0	No	No	Stable	Normal	0.140	Y		Y		TRUE
WAP-21	0/15	100%	0.01-0.05	0.0127	0.01	0.022		0.0001067	0.01033	0.8154	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
						CC	R Appendix-I	V: Radium-226 &	228 (pCi/L)																
WBW-1	8/15	47%	0-4	3.07	4	4.302	4.33	2.396	1.548	0.5042	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric			5.97		6.0	
WAP-01	10/15	33%	4-4	3.43	4	5.809	5.97	2.591	1.61	0.4694	5	pCi/L	Y	2	0	Yes	No	Decreasing	14011-parametric			3.57		0.0	
WAP-10	15/15	0%	-	5.26	5.63	6.763	6.91	1.658	1.288	0.2446	5	pCi/L	Y	10	0	No	No	Stable	Normal	5.830	Y		N		FALSE
WAP-20	8/15	47%	4-4	3.15	4	4.352	4.38	1.965	1.402	0.4449	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric	0.877	Y		N		FALSE
WAP-21.	11/15	27%	4-4	3.43	4	5.229	5.67	2.798	1.673	0.4884	5	pCi/L	Y	2	0	No	No	Decreasing	Normal	2.130	Y		N		FALSE
						(0	CR Appendix	-IV: Selenium, To	tal (mg/L)																
WBW-1	0/14	100%	0.01-0.02	0.0114	0.01	0.02		0.00001319	0.003631	0.3177	0.05	mg/L	N	0	0	NA	NA	NA	NA NA			0.020		0.050	
WAP-01	0/16	100%	0.01-0.02	0.0112	0.01	0.02		0.00001167	0.003416	0.3036	0.05	mg/L	N	0	0	NA	NA	NA	115			5.525		0.050	
WAP-10	0/16	100%	0.01-0.02	0.0112	0.01	0.02		0.00001167	0.003416	0.3036	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-20	0/12	100%	0.01-0.02	0.0117	0.01	0.02		0.00001515	0.003892	0.3336	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-21	0/12	100%	0.01-0.02	0.0117	0.01	0.02		0.00001515	0.003892	0.3336	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
							CCR Appendix	-IV: Thallium, To	tal (mg/L)																
WBW-1	0/13	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA NA			0.001		0.002	
WAP-01	0/13	100%	0.0001-0.001	0.000931	0.001	0.001		6.231E-08	0.0002496	0.2682	0.002	mg/L	N	0	0	NA	NA	NA				5.501		0.002	
WAP-10	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001	N		N		FALSE
WAP-20	1/12	92%	0.001-0.001	0.00105	0.001	0.00127	0.0016	0.00000003	0.0001732	0.165	0.002	mg/L	N	0	0	No	No	NA	Non-parametric	0.001	N		N		FALSE
WAP-21.	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/i	N	0	0	NA	NA	NA.	NA.	0.001	N		N		FALSE



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TECHNICAL MEMORANDUM

December 2, 2021 File No. 132892-013

SUBJECT: 2021 Semi-annual Groundwater Assessment Monitoring Data

Statistical Evaluation

Winyah Generating Station

Ash Pond A

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained for the August 2021 semi-annual assessment monitoring event for Ash Pond A at the Winyah Generating Station (WGS). The statistical evaluation discussed in this memorandum was conducted to continue to evaluate the Appendix IV groundwater monitoring constituents for the presence of statistically significant levels (SSLs) above Groundwater Protection Standards (GWPS) consistent with the requirements in 40 CFR § 257.95.

Utilizing interwell evaluations, data from the semi-annual groundwater sampling events for the downgradient monitoring wells were compared to the GWPS established from the background dataset for the upgradient monitoring wells (WAP-1 and WBW-1) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level (RSL), or background concentration. The results of the groundwater assessment monitoring statistical evaluation are discussed below and provided in Table I.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). The statistical method used for these evaluations, tolerance limit (TL), was certified by Haley & Aldrich, Inc. on October 14, 2017. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above GWPS. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The most recent groundwater sampling event from each compliance well was compared to the corresponding GWPS to determine if an SSL existed.

STATISTICAL EVALUATION

An interwell evaluation, which compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, was used. Because the CCR unit has

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transitioned into assessment monitoring, statistical evaluations were not conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The parametric TL methods were used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. 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 TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for all detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the August 2021 semi-annual sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if an SSL was present. The LCL is the lower end of the confident interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location (WAP-1 and WBW-1) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009,* background concentrations were updated for the February 2020 semi-annual sampling event based on statistical evaluation of analytical results collected through February 2020. The background dataset will be updated again in February 2022 per the Unified Guidance.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the August 2021 semi-annual assessment monitoring event were compared to their



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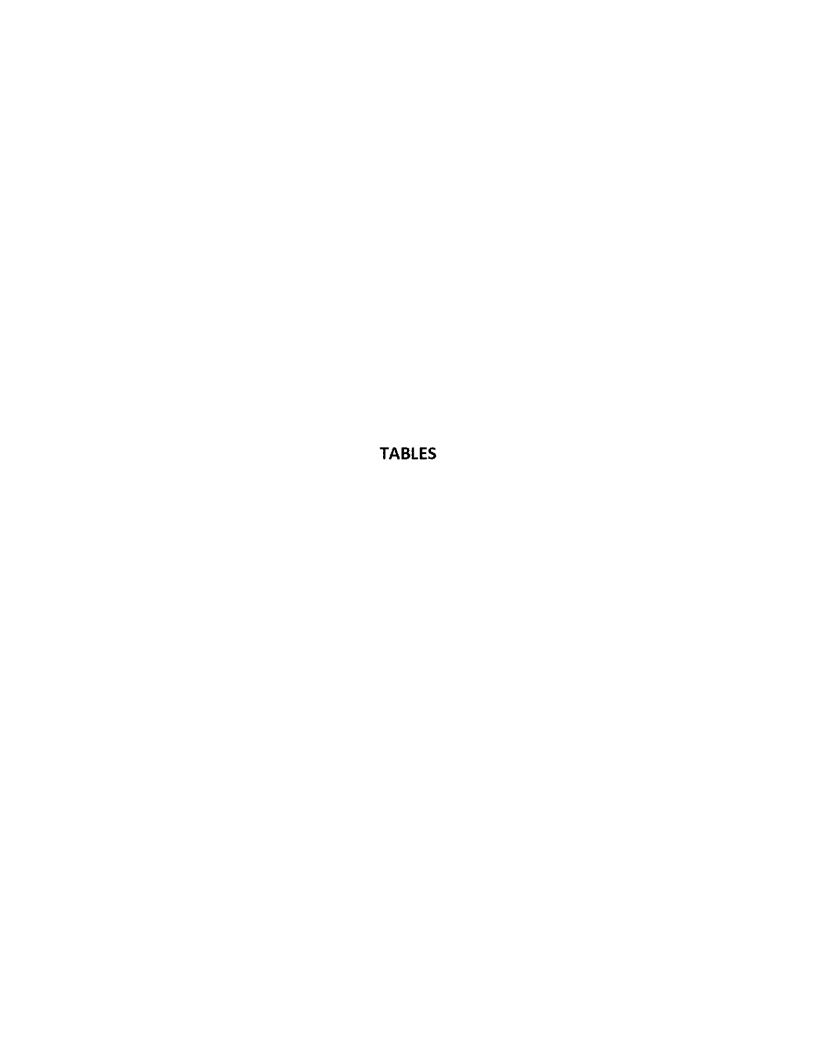
respective GWPS (Table I). A sample concentration greater than the GWPS is considered to represent an SSL. Based on previous compliance sampling events and statistical evaluations, interwell comparisons were utilized for all downgradient wells and constituents. Consistent with previous results, arsenic and lithium continue to be the only Appendix IV constituents present in groundwater at SSLs above GWPS. Molybdenum, which was identified above GWPS during prior sampling events, was not detected at an SSL during the August 2021 sampling round. Groundwater trends will continue to be monitored in future sampling events.

Closure by removal has been initiated at Ash Pond A and is anticipated to be completed in 2025. During closure activities, a short-term increase in the concentrations of Appendix IV SSLs is possible but these spikes in concentration should rapidly decrease once the closure is complete and equilibrium groundwater conditions are restored.

Tables:

Table I – Summary of Assessment Monitoring Statistical Evaluation – August 2021





																				<u> </u>	inte	r-well Analysis			
ocation Id	Frequency of Detection	Percent Non-Detects	Range of Non- Delect	Mean	50th Percentile (Median)	95th Percentile	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL	Report Result Unit	Detection Exceedances (Y/N)	Number of Detection Exceedances	Number of Non-Delection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Well*	August 2021 Concentration (mg/L)	Delect?	Upper Tolerance Limit (mg/L)	SSI	GWPS (Higher of MCL/RSL or Background Limit) (mg/L)	
						(C	CR Appendix-IV	V: Antimony, Tol	al (mg/L)																
/BW-1	0/L4	100%	0.005-0.025	0.00643	0.005	0.012		0.00002857	0.005345	0.8315	0.006	mg/L	N	0	1	NA	NA	NA	- NA			0.025		0.025	
AP-01	0/L4	100%	0.005-0.025	0.00643	0.005	0.012		0.00002857	0.005345	0.83 L5	0.006	mg/L	N	0	1	NA	NA	NA	NA.			0.025		0.023	
4P-09	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	N5			N		
AP-L7	0/L3	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA	NA	NS			N		
AP-LB	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	NS			N		
AP-L9	0/L2	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	NS			N		
						- ()	CCR Appendix	IV: Arsenic, Tota	i (mg/L)																
BW-1	0/16	100%	0.003-0.005	0.00475	0.005	0.005		4.667E-07	0.0006831	0.1438	0.01	mg/L	N	0	0	NA	NA	NA				0.000		2012	
AP-01	1/18	94%	0.003-0.005	0.00496	0.005	0.005495	0.0083	0.00000111	0.001053	0.2123	0.01	mg/L	N	0	0	Yes	No	NA	- NA			B00.0		0.010	
AP-09	19/19	0%	-	0.456	0.388	0.8192	0.84	0.017814	0.18876	0.835	0.01	mg/L	Y	20	0	No	No	Decreasing	Normal	0.084	γ		Υ		
AP-17	18/18	0%	-	0.26	0.228	0.408	0.48	0.003338	0.08172	0.6374	0.01	mg/L	Υ	19	0	No	No	Decreasing	Normal	0.090	Y		Υ		
AP-LB	16/16	0%	-	0.539	0.318	1.372	L.53	0.1993	0.4464	0.8278	0.01	mg/L	Y	16	0	No	No	Stable	Normal	0.132	Y		Y		
AP-19	16/16	0%	-	0.106	0.0999	0.2373	0.256	0.004032	0.06349	0.5968	0.01	mg/L	Y	16	0	Yes	No	Stable	Normal	0.147	Y		Y		
	Charles I				1000	(CCR Appendix-	IV: Barium, Tota	l (mg/L)	100	-			100	- 1					1000			1000		
BW-1	16/16	0%	-	0.0133	0.01385	0.01792	0.0237	0.00001587	0.003983	0.2988	2	mg/L	N	0	0	No	No	Stable							
AP-01	18/18	0%	-	0.0327	0.03015	0.06085	0.094	0.0005585	0.02363	0.7224	2	mg/L	N	0	0	No	No	Increasing	Non-parametric			0.094		2.0	
AP-09	19/19	0%	-	0.0757	0.0697	0.114	0.15	0.0004711	0.02 L7	0.2868	2	mg/L	N	0	0	Yes	No	Decreasing	Non-parametric	0.076	Y		N		
AP-L7	18/18	0%	-	0.0503	0.04925	0.07475	0.1	0.000311	0.01763	0.3504	2	mg/L	N	0	0	Yes	No	Decreasing	Normal	0.053	Y		N		
AP-LB	16/16	0%	-	0.094	0.09175	0.1 L77	0.14L	0.000239	0.01546	0.1644	2	mg/L	N	0	0	Yes	No	Stable	Normal	0.141	γ		Υ		
.P-L9	16/16	0%	-	0.0528	0.0511	0.08358	0.1	0.0002947	0.01717	0.3251	2	mg/L	N	0	0	No	No	Decreasing	Non-parametric	0.051	Y		N		
								V: Beryllium, Tol																	
W-1	0/L4	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA							
.P-01	0/14	100%	0.0005-0.0005		0.0005	0.0005	†	0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	- NA			0.0005		0.0005	
P-09	0/L2	100%	0.0005-0.0005		0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	NS		100000	N		
05 1P-L7	0/13	100%	0.0005-0.0005		0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA.	NA NA	NA	NA NA	N5			N		
.P-18	0/L2	100%	0.0005-0.0005		0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA.	N5			N		
P-L9	0/12	100%	0.0005-0.0005		0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA.	N5			N		
	0,722						CR Appendix-P	V: Cadmium, Tol	al (me/L)			B -	100	100	100										
W-1	0/15	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	D	NA	NA	NA							
P-01	0/L7	100%	0.0005-0.0005		0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	- NA			0.0005		0.005	
P-09	0/L7	100%	0.0005-0.002		0.0005	0.0008		1.324E-07	0.0003638	0.6185	0.005	mg/L	N	0	n	NA NA	NA.	NA.	NA.	N5			N		
4P-L7	0/L7 0/L3	100%	0.0005-0.0005		0.0005	0.0005		0	0.0003031	0.0165	0.005		, N	0	0	NA NA	NA NA	NA.	NA NA	N5			N N		
AP-18		92%			0.0005		0.00068	2.7E-09	0.00005196	0.1009	0.005	mg/L mg/L	N	0	0	NA NA	NA	NA.	NA NA	N5			N		
AP-L8	1/12	100%	0.0005-0.0005		0.0005	0.000581 0.0005	0.0000	0	0.00003130	0.1009	0.005	mg/l	N	0	0	NA NA	NA NA	NA.	NA NA				N		
14-13	0/L2	100%	0.0003-0.0003	0.0003	0.0003		CP Appondix II	/: Chromium, To	THE PARTY NAMED IN	U	0.003	IIIg/L	N		U	INA	IVA	NA	NA	NS			IN		
BW-1	1/15	0.797	0.005.0.005	0.005	0.005	-	0. 00 5		8.8E-11	1.765.09	0.1		N	0	0	NA	NA	NA							
AP-01	1/15	93%	0.005-0.005 0.005-0.005	0.005	0.005	0.005	0.003	7.744E-21 3.388E-21	5.821E-11	1.76E-08 1.164E-08	0.1	mg/L mg/L	N N	0	0	NA NA	NA NA	NA NA	- NA			0.005		0.1 .	
AP-01	0/L7	100%	0.005-0.003	0.00529	0.005	0.005		0.000001471	0.00L213		0.1 0.L		N N	0	0	NA NA	NA NA	NA NA	NA	N5			NI NI		
	0/L7									0.229 L		mg/L			0	NA NA							IN N		
AP-L7	0/L3	100%	0.005-0.005	0.005	0.005	0.005		L.807E-20	L.344E-10	2.688E-08	0.1	mg/L	N N	0	0	NA NA	NA NA	NA NA	NA.	N5			N N		
AP-LB	0/12	100%	0.005-0.005	0.005	0.005	0.005	-	L.478E-20	1.216E-10	2.432E-08	0.1	mg/L		0				NA	NA.	NS			N		
\P-L9	0/12	100%	0.005-0.005	0.005	0.005	0.005	CCD 4	1.478E-20	1.216E-L0	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	NS			IN .		
0144.4	-11-	D 48/	0.8805.0.0055	B 080613	2 0005			-IV: Cobalt, Tota		0.7047	0.000			-	-	115		A1.6							
3W-1	1/16	94%	0.0005-0.0005		0.0005	0.00095	0.0023	2.025E-07	0.00045	0.7347	0.006	mg/L	N	0	0	NA NA	NA NA	NA	- NA			0.0023		0.006	
P-01	3/L6	81%	0.0005-0.0005		0.0005	0.001525	0.00L6	1.279E-07	0.0003576	0.5615	0.006	mg/L	N	0	0	NA NA	NA NA	NA							
P-09	0/14	100%	0.0005-0.0005		0.0005	0.0005		0	0	0	0.006	mg/l	N	0	0	NA NA	NA NA	NA.	NA NA	0.0005	N		N .		
₽-L7	0/L5	100%	0.0005-0.0005		0.0005	0.0005	0.000	0	0	0	0.006	mg/L	N	0	0	NA NA	NA NA	NA	NA NA	0.0005	N		N		
P-18	4/L4	71%	0.0005-0.0005		0.0005	0.001707	0.0033	5.527E-07	0.0007434	L.004	0.006	mg/L	N	0	0	Yes	Nø	increasing	Non-parametric	0.00330	Y		Y		
P-19	0/L4	100%	0.0005-0.0005	0.0005	0.0005	0.0005	(con)	0	0	0	0.006	mg/L	N	0	0	NA	NA	NA	NA NA	0.0005	N		N		
								lix-IV: Fluoride (r																	
W-1	1/L7	94%	0.1-0.1	0. L	0.1	0.1	0.1	0	0	0	4	mg/L	N	0	0	No	No	NA	- Non-parametric			0.140		4.0	
P-01	2/L7	68%	0.1-0.1	0.104	0.1	0.132	0.14	0.0001382	0.01176	0.1129	4	mg/L	N	0	0	No	No	NA			-				
P-09	1/L7	94%	0.1-0.1	0.101	0.1	0.102	0.11	0.000005882	0.002425	0.024L1	4	mg/L	N	0	0	No	No	NA	Non-parametric	0.100	N		N		
P-L7	12/18	33%	0.1-0.1	0.155	0.14	0.2605	0.32	0.004168	0.06456	0.4165	4	mg/L	N	0	0	No	No	Stable	Normal	0.100	N		N		
P-LB	16/17	6%	0.1-0.1	L.23	1.34	2.102	2.51	0.3898	0.6243	0.5083	4	mg/L	N	0	0	No	No	increasing	Non-parametric	2.510	Y		Y		
P-19	13/17	24%	0.1-0.1	0.214	0.17	0.404	0.58	0.01695	0.1302	0.6097	4	mg/L	N	0	0	No	No	increasing	Non-parametric	0.260	Y		Υ		
							CCR Appendi	н-IV: Lead, Total	(mg/L)				-												
W-1	0/L5	100%	0.00 L-0.01	0.0018	0.001	0.00475		0.000005421	0.002328	1.294	0.015	mg/l	N	0	0	NA	NA	NA	Non-parametric			0.010		0.015	
P-01	4/L7	76%	0.00 L-0.01	0.00199	0.001	0.005648	0.00456	0.000005 L34	0.002266	1.138	0.015	mg/l	N	0	0	Yes	No	Decreasing	Parametric			5.010		0.010	
P-09	0/L7	100%	0.00 L-0.0025	0.00124	0.001	0.0025		2.849E-07	0.0005338	0.4321	0.015	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
P-L7	0/L3	100%	0.001-0.0025	0.00123	0.001	0.0025		3.173E-07	0.0005633	0.4577	0.015	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
P-LB	0/L2	100%	0.00 L-0.0025	0.00125	0.001	0.0025		3.409E-07	0.0005839	0.4671	0.015	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
P-19	0/L2	100%	0.001-0.0025	0.00125	0.001	0.0025		3.409E-07	0.0005839	0.4671	0.015	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
						(CCR Appendix	IV: Lithium, Tota	l (mg/L)																
3W-1	0/16	100%	0.01-0.01	0.01	0.01	0.0 L		2.891E-20	1.7E-10	0.000000017	0.04	mg/L	N	0	0	NA	NA	NA	Non parameters			0.012		0.040	
P-01 .	1/L6	94%	0.01-0.01	0.0101	0.01	0.0 L04	0.01L6	0.00000016	0.0004	0.0396	0.04	mg/L	N	0	0	No	No	Stable	- Non-parametric			V.U12		0.040	
P-09	16/16	0%	-	0.0772	0.0695	0.1173	0.13	0.0004218	0.02054	0.2659	0.04	mg/L	Y	16	0	Yes	No	Decreasing	Normal	0.057	Y		Υ		
AP-L7	17/17	0%		0.315	0.29	0.605	0.825	0.03422	0.185	0.5867	0.04	mg/L	Y	16	0	Yes	No	Decreasing	Normal	0.012	Υ		Υ		
AP-LB	16/16	0%	-	0.277	0.25	0.51	0.54	0.01514	0.1231	0.4445	0.04	mg/L	γ	16	0	No	No	Increasing	Normal	0.500	γ		· Y		
IP-LB																									-

Winyah Ash Pond A

Assessment Monitoring Statistical Analysis Summary

Prepared: October 29, 2021

							CR Appendix	IV: Mercury, Tol	al (mg/L)																
WBW-1	0/14	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/l	N	0	o	NA	NA	NA	NA.			.0002		0.002	
/AP-01	0/14	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	147		, and a second			0.002	
/AP-09	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS			N		FA
/AP-17	0/13	100%	0.0002-0.00024	0.000203	0.0002	0.000216		1.231E-10	0.00001109	0.05463	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS			N		F.
AP-18	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/i	N	0	0	NA	NA	NA	NA	NS			N		
/AP-19	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		o	o	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS			N		F
						CCR	Appendix-IV	: Molybdenum, T	otal (mg/t)																
BW-1	0/16	100%	0.01-0.05	0.0125	0.01	0.02		0.0001	0.01	0.8	0.1	mg/L	N	0	0	NA	NA	NA	NA NA			0.050		0.1	
AP-01	0/16	100%	0.01-0.01	0.01	0.01	0.01		2.891E-20	1.7E-10	0.000000017	0.1	mg/L	N	0	0	NA	NA	NA	1444			0.0.50		0.1	
/AP-09	9/16	44%	0.01-0.01	0.0159	0.01095	0.03085	0.034	0.00006415	0.008009	0.5037	0.1	mg/L	N	0	0	No	No	Decreasing	Non-parametric	0.010	N		N		F
AP-17	16/16	0%	-	0.0704	0.0491	0.17	0.35	0.005969	0.07726	1.098	0.1	mg/L	Y	2	0	Yes	No	Increasing	Non-parametric	0.012	Y		N		
/AP-18	15/15	0%	-	0.417	0.14	1.78	2.9	0.5912	0.7689	1.844	0.1	mg/l	Y	8	0	Yes	No	Increasing	Non-parametric	0.090	Y		Y		
AP-19	14/15	7%	0.05-0.05	0.0389	0.041	0.0556	0.057	0.0001702	0.01305	0.3352	0.1	mg/l	N	0	0	No	No	Increasing	Normal	0.024	Y		N		
						CCI	R Appendix-IV	/: Radium-226 & :	228 (pCi/L)																
VBW-1	9/16	44%	0-4	2.92	4	4.3	4.33	2.61	1.615	0.5537	5	pCi/L	N	0	O	No	No	Decreasing							
/AP-01	11/16	31%	4-4	3.53	4	5.798	5.97	2.575	1.605	0.4548	5	pCi/L	Y	3	O	No	No	Decreasing	Non-parametric			5.97		5.97	
/AP-09	13/16	19%	4-4	3.59	4	5.085	5.34	1.62	1.273	0.3549	5	pCi/L	Y	1	O	No	No	Decreasing	Non-parametric	3.460	Y		N		
/AP-17	9/16	44%	4-4	3.02	4	4.67	5.51	2.948	1.717	0.5681	5	pCi/L	Y	1	O	Yes	No	Decreasing	Non-parametric	3.040	Y		N		
VAP-18	9/16	44%	4-4	3.23	4	4.287	4.46	1.519	1.232	0.3815	5	pCi/L	N	0	o	Yes	No	Decreasing	Non-parametric	2.030	Y		N		
VAP-19	7/16	56%	4-4	3.15	4	4.063	4.25	1.439	1.2	0.3806	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric	1.630	Y		N		
						C	CR Appendix-	IV: Selenium, Tol	al (mg/L)																
VBW-1	0/15	100%	0.01-0.02	0.0113	0.01	0.02		0.00001238	0.003519	0.3105	0.05	mg/L	N	0	O	NA	NA	NA							
/AP-01	0/17	100%	0.01-0.02	0.0112	0.01	0.02	İ	0.00001103	0.003321	0.2971	0.05	mg/L	N	0	o	NA	NA	NA	- NA		•	0.020		0.05	
AP-09	0/18	100%	0.005-0.05	0.0131	0.01	0.0245		0.00009747	0.009873	0.7562	0.05	mg/l	N	0	1	NA	NA	NA	NA	NS			N		
AP-17	0/13	100%	0.01-0.02	0.0115	0.01	0.02		0.0000141	0.003755	0.3255	0.05	mg/l	N	0	0	NA	NA	NA	NA	NS			N		
AP-18	0/12	100%	0.01-0.02	0.0117	0.01	0.02		0.00001515	0.003892	0.3336	0.05	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
/AP-19	0/12	100%	0.01-0.02	0.0117	0.01	0.02		0.00001515	0.003892	0.3336	0.05	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
						(0	CR Appendix	IV: Thallium, Tot	al (mg/L)																
VBW-1	0/14	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA							
AP-01	0/14	100%	0.0001-0.001	0.000936	0.001	0.001		5.786E-08	0.0002405	0.2571	0.002	mg/L	N	0	0	NA	NA	NA	- NA		•	100.0		0.002	
/AP-09	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
/AP-17	0/13	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA NA	NA	NS			N		
VAP-18	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS			N		
VAP-19	0/12	100%	0.001-0.001	0.001	0.001	0.001		o	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA NA	NS			N		



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TECHNICAL MEMORANDUM

December 2, 2021 File No. 132892-013

SUBJECT: 2021 Semi-annual Groundwater Assessment Monitoring Data

Statistical Evaluation

Winyah Generating Station

Ash Pond B

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained for the August 2021 semi-annual assessment monitoring event for Ash Pond B at the Winyah Generating Station (WGS). The statistical evaluation discussed in this memorandum was conducted to continue to evaluate the Appendix IV groundwater monitoring constituents for the presence of statistically significant levels (SSLs) above Groundwater Protection Standards (GWPS) consistent with the requirements in 40 CFR § 257.95.

Utilizing interwell evaluations, data from the groundwater sampling events for the downgradient monitoring wells were compared to the GWPS established from the background dataset for the upgradient monitoring wells (WAP-1 and WBW-1) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level (RSL), or background concentration. The results of the groundwater assessment monitoring statistical evaluation are discussed below and provided in Table I.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). The statistical method used for these evaluations, tolerance limit (TL), was certified by Haley & Aldrich, Inc. on October 14, 2017. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above GWPS. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The most recent groundwater sampling event from each compliance well was compared to the corresponding GWPS to determine if an SSL existed.

STATISTICAL EVALUATION

An interwell evaluation, which compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, was used. Because the CCR unit has

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transitioned into assessment monitoring, statistical evaluations were not conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The parametric TL methods were used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. 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 TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for all detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the August 2021 sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if an SSL was present. The LCL is the lower end of the confident interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location (WAP-1 and WBW-1) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009,* background concentrations were updated for the February 2020 semi-annual sampling event based on statistical evaluation of analytical results collected through February 2020. The background dataset will be updated again in February 2022 per the Unified Guidance.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the August 2021 semi-annual assessment monitoring event were compared to their respective GWPS (Table I). A sample concentration greater than the GWPS is considered to represent an



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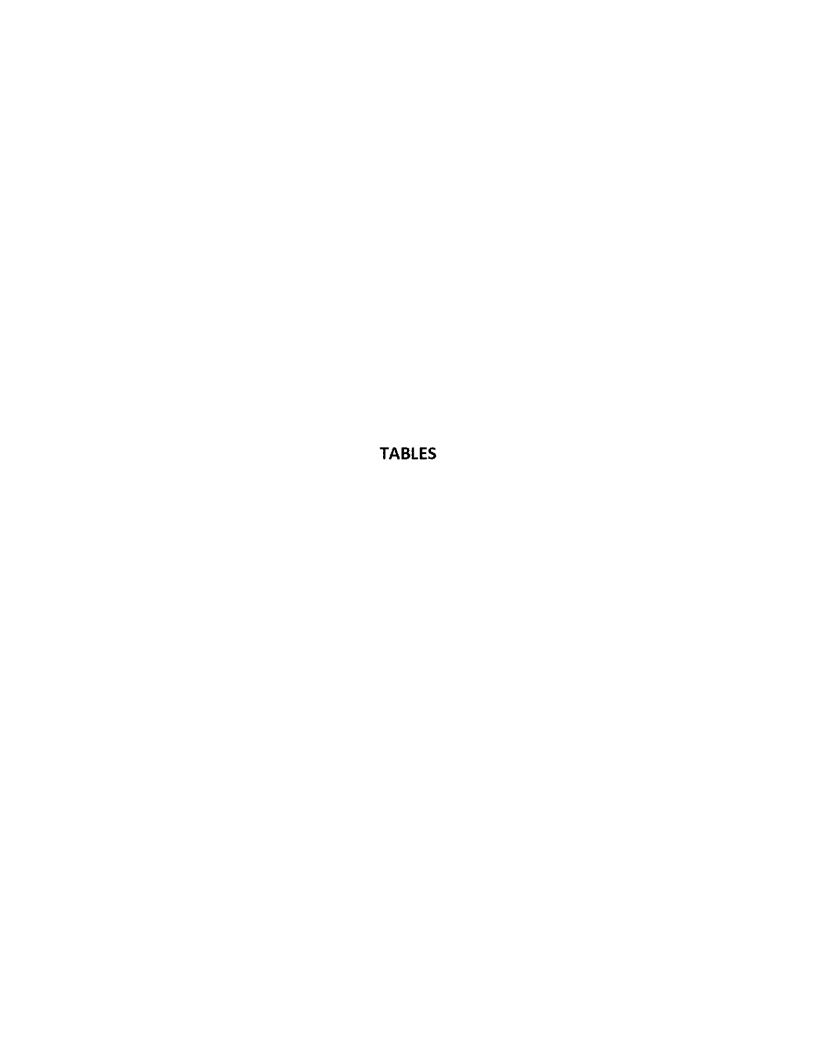
SSL. Based on previous compliance sampling event and statistical evaluations, interwell comparisons were utilized for all downgradient wells and constituents. Consistent with previous results arsenic and lithium continue to be the only Appendix IV constituents present in groundwater at SSLs above GWPS. Molybdenum, which was detected above GWPS during prior sampling events, was not detected at an SSL during the August sampling round. Groundwater trends will continue to be monitored in future sampling events.

Closure by removal has been initiated at Ash Pond B and is anticipated to be completed in 2025. During closure activities, a short-term increase in the concentrations of Appendix IV SSLs is possible but these spikes in concentration should rapidly decrease once the closure is complete and equilibrium groundwater conditions are restored.

Tables:

Table I – Summary of Assessment Monitoring Statistical Evaluation – August 2021





																					Inter-we	ll Analysis			
Localion Id	Frequency of Detection	Percent Non-Oetects	Range of Non-Detect	Mean	50th Percentile (Median)	95th Percentile	Maximum Detect	Variance	Standard Oeviation	Coefficient of Variance	CCR MCL/RSL	Report Result Unit	Detection Exceedances (Y/N)	Number of Detection Exceedances	Number of Non-Detection Exceedances	Oullier Presence	Outlier Removed	Trend	Distribution Well*	August 2021 Concentration (mg/L)	Detect?	Upper Tolerance Limit (mg/L)	SSI	GWPS (Higher of MCL/RSL or Background Limit) (mg/L)	SSL
						(CC	R Appendix-IV	Antimony, Total	I (mg/L)																
WBW-1	0/14	100%	0.005-0.025	0.00643	0.005	0.012		0.00002857	0.005345	0.83 L5	0.006	mg/L	N	0	1	NA	NA	NA	- NA			0.025		0.025	
WAP-01	0/14	100%	0.005-0.025	0.00643	0.005	0.012		0.00002857	0.005345	0.8315	0.006	mg/L	N	0	1	NA	NA	NA							54105
WAP-LO WAP-20	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L mg/L	N	0	1	NA NA	NA NA	NA NA	NA NA	NS NS			N N		FALSE
WAP-21	0/13	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA NA	NA.	NA	NA NA	NS NS			N		FALSE
	100					(CR Appendix-I	: Arsenic, Total	(mg/L)				100												
WBW-1	0/16	100%	0.003-0.005	0.00475	0.005	0.005		4.667E-07	0.000683 L	0.1438	0.01	mg/L	N	0	0	NA	NA	NA	NA NA			0.008		0.010	
WAP-01	L/18	94%	0.003-0.005	0.00496	0.005	0.005495	0.0083	0.00000111	0.00L053	0.2123	0.01	mg/L	N	0	0	Yes	No	NA							
WAP-LO WAP-20	LO/18 L6/16	44% 0%	0.005-0.005	0.0282	0.0057	0.14	0.14	0.00L9 0.00L346	0.04359	1.546 0.5156	0.01	mg/L mg/L	Y	16	0	Yes	No No	Decreasing Decreasing	Non-parametric Normal	0.005	N Y		N		FALSE
WAP-20	0/16	100%	0.003-0.005	0.00475	0.005	0.1238	0.143	4.667E-07	0.0006831	0.1438	0.01	mg/L	N N	0	0	NA NA	NA NA	NA NA	NA	0.005	N N		N		FALSE
	9,10						CCR Appendix-P	V: Barium, Total	E 770											2.000					
WBW-1	L6/16	0%	-	0.0133	0.01385	0.01792	0.0237	0.00001587	0.003983	0.2988	2	mg/L	N	0	0	No	No	Stable	Non-parametric			0.094		2.000	
WAP-01	LB/18	0%	-	0.0327	0.03015	0.06085	0.094	0.0005585	0.02363	0.7224	2	mg/L	N	0	0	No	No	Increasing	Non-parametric			0.034		2.000	
WAP-LO	L8/18	0%	-	0.278	0.2695	0.3399	0.396	0.00 L387	0.03724	0.134 L	2	mg/t	N	0	0	Yes	No	Stable	Non-parametric	0.291	Y		Y		FALSE
WAP-20	L6/16	0%	-	0.0462	0.04145	0.0763	0.088	0.0003253	0.01804	0.3903	2	mg/L	N	0	0	No Yes	No No	Decreasing Decreasing	Normal	0.045	Y		N		FALSE
WAP-21	16/16	0%		0.0594	0.0572	0.12	0.15 CR Appendix-IV	0.00L074 Beryllium, Total	0.03278 (mg/L)	0.552	2	mg/L	N	0	0	462	140	Decreasing	Normal	0.028	Y		N		FALSE
WBW-1	0/14	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	(mg/c)	0	0.004	mg/L	N	0	0	NA	NA	NA							
WAP-01	0/14	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	- NA			0.0005		0.004	
WAP-LO	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA.	NA	NA	NA	N5			N		FALSE
WAP-20	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WAP-21	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	D	NA	NA	NA	NA	N5			N		FALSE
WBW-1	0/15	100%	0.0005-0.0005	0.0005	0.0005	0.0005	CK Appendix-IV	: Cadmium, Total	(mg/L)	0	0.005	maft.	N	0	0	NA NA	NA	NA							
WAP-01	0/15 0/17	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L mg/L	N	0	0	NA NA	NA NA	NA NA	NA			0.0005		0.005	
WAP-LO	0/17	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA.	NA.	NA	NA	0.0005	N		N		FALSE
WAP-20	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N		N		FALSE
WAP-21	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/l	N	0	0	NA	NA	NA	NA	NS			N		FALSE
								Chromium, Tota	1.00			-		1.0											
WBW-1	L/15	93%	0.005-0.005	0.005	0.005	0.005	0.005	7.744E-21	8.8E-11	1.76E-08	0.1	mg/L	N N	0	0	NA NA	NA NA	NA NA	NA			0.0050		0.100	
WAP-LO	0/17	100%	0.005-0.005	0.005	0.005	0.005		3.388E-21 3.388E-21	5.821E-11 5.821E-11	1.164E-08 1.164E-08	0.1	mg/L mg/L	N	0	0	NA NA	NA NA	NA NA	NA NA	0.005	N		N		FALSE
WAP-20	0/13	100%	0.005-0.005	0.005	0.005	0.005		1.807E-20	1.344E-L0	2.688E-08	0.1	mg/L	N	0	0	NA.	NA NA	NA	NA	0.005	N N		N		FALSE
WAP-21	0/12	100%	0.005-0.005	0.005	0.005	0.005		L.478E-20	1.216E-10	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	N5			N		FALSE
						(CCR Appendix-I	V: Cobalt, Total ((mg/L)																
WBW-1	L/16	94%	0.0005-0.0005	0.0006 L3	0.0005	0.00095	0.0023	2.025E-07	0.00045	0.7347	0.006	mg/L	N	0	0	NA	NA	NA	NA			0.0023		0.006	
WAP-LO	3/16 0/16	81% 100%	0.0005-0.0005	0.000637	0.0005	0.001525	0.0016	L.279E-07	0.0003576 0	0.56L5 0	0.006	mg/L mg/L	N N	0	0	NA NA	NA NA	NA NA	NA NA	0.0005	N		N		FALSE
WAP-20	13/16	19%	0.0005-0.001	0.000981	0.00097	0.0015	0.0018	1.175E-07	0.0003428	0.3496	0.006	mg/L	N	0	0	No	No	Decreasing	Normal	0.0005	N N		N		FALSE
WAP-21	1/16	94%	0.0005-0.01	0.00111	0.0005	0.003092	0.00079	0.000005623	0.002371	2.133	0.006	mg/L	N	0	1	NA.	NA.	NA	NA	0.0005	N		N		FALSE
		13.	A		7 10	1000	CCR Appendi	x-IV: Fluoride (m _j	g/L)		THE N									THE R. LEWIS CO., LANSING, MICH.	111			1000	
WBW-1	L/17	94%	0.1-0.1	0.1	0. L	0. L	0.1	0	0	0	4	mg/L	N	0	0	No	No	NA	Non-parametric			0.140		4.00	
WAP-01	2/17	88%	0.1-0.1	0.104	0.1	0.132	0.14	0.0001382	0.01L76	0.1129	4	mg/L	N	0	0	No	No	NA							
WAP-LO WAP-20	2/17 L7/17	88%	0.1-0.1	0.104	0.1	0.126	0.15	0.0001632	0.01278 0.1524	0.1227 0.27L2	4	mg/L mg/L	N N	0	0	Yes	No No	Stable	Non-parametric Normal	0.100	N Y		N V		FALSE
WAP-20	0/17	100%	0.1-0.1	0.562	0.1L	0.742	0.73	0.02322	0.1524	0.2712	4	mg/L	N	0	0	NA	NA NA	NA	Normal	0.230	N N		N N		FALSE
	-7.4.						CCR Appendix	IV: Lead, Total (r		_															
WBW-1	0/15	100%	0.00 L-0.01	0.0018	0.001	0.00475		0.000005421	0.002328	1.294	0.015	mg/L	N	0	0	NA	NA	NA	Non-parametris			0.0100		0.015	
WAP-01	4/17	76%	0.001-0.01	0.00199	0.001	0.005648	0.00456	0.000005134	0.002266	1.138	0.015	mg/L	N	0	0	Yes	No	Decreasing	- Non-parametric			0.0100		0.013	
WAP-LO	0/17	100%	0.001-0.01	0.00171	0.001	0.004	1	0.000004814	0.002194	1.286	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001	N		N		FALSE
WAP-20	1/13	92%	0.001-0.0025	0.00125	0.001	0.0025	0.00L3	3.127E-07	0.0005592	0.446	0.015	mg/L	N	0	0	NA NA	NA NA	NA NA	NA NA	0.001	Y		N		FALSE
WAP-21	0/12	100%	0.00 L-0.0025	0.00125	0.001	0.0025	CR Appendix B	3.409E-07 /: Lithium, Total	0.0005839 (mg/L)	0.4671	0.015	mg/l	N	0	U	NA NA	NA NA	NA	NA NA	NS			N		FALSE
WBW-1	0/16	100%	0.01-0.01	0.01	0.01	0.01		2.89 LE-20	1.7E-10	0.000000017	0.04	mg/L	N	0	0	NA	NA	NA							
WAP-01	1/16	94%	0.01-0.01	0.010L	0.01	0.0104	0.01 L6	0.000000L6	0.0004	0.0396	0.04	mg/L	N	0	0	No	No	Stable	Non-parametric			0.012		0.040	
WAP-10	16/16	0%	-	0.026	0.02305	0.03647	0.0466	0.00004642	0.006813	0.2621	0.04	mg/L	Y	1	0	Yes	No	Stable	Non-parametric	0.025	Y		Y		FALSE
WAP-20	16/16	0%	-	0.25	0.245	0.364	0.406	0.007022	0.0838	0.3354	0.04	mg/L	Y	16	0	No	No	Stable	Normal	0.041	Y		Y		TRUE
WAP-21	0/16	100%	0.01-0.01	0.01	0.01	0.01	CD 0	2.891E-20	1.7E-10	0.000000017	0.04	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WBW-1	0/14	100%	0.0002-0.0002	0.0002	0.0002	0.0002	CK Appendix-N	: Mercury, Total 0	(mg/L) 0	0	0.002	mg/L	N	0	0	NA	NA	NA						4 4 7	
WAP-01	0/14	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA NA	NA NA	NA NA	NA			0.0002		0.0020	
WAP-LO	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA NA	NA	NA	NS			N		FALSE
WAP-20	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.0002	N		N		FALSE
WAP-21	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/l	N	0	0	NA	NA	NA	NA	NS			N		FALSE

Winyah Ash Pond B

Assessment Monitoring Statistical Analysis Summary

Prepared: October 21st, 2021

						CCR	Appendix-IV:	Molybdenum, To	tal (mg/L)																
WBW-1	0/16	100%	0.01-0.05	0.0125	0.01	0.02		0.0001	0.01	0.8	0.1	mg/L	N	0	o	NA	NA	NA	NA.			0.050		0.10	
WAP-01	0/16	100%	0.01-0.01	0.01	0.01	0.01		2.891E-20	1.7E-10	0.000000017	0.1	mg/L	N	0	0	NA	NA	NA	IVA			0.030		0.10	
WAP-10	0/16	100%	0.01-0.01	0.01	0.01	0.01		2.891E-20	1.7E-10	0.000000017	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-20	16/16	0%	-	0.146	0.133	0.3243	0.397	0.01061	0.103	0.704	0.1	mg/L	Y	10	0	No	No	Stable	Normal	0.021	Y		N		FALSE
WAP-21	0/16	100%	0.01-0.05	0.0125	0.01	0.02		0.0001	0.01	0.8	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
						CCR	Appendix-IV:	Radium-226 & 22	28 (pCi/L)																
WBW-1	9/16	44%	0-4	2.92	4	4.3	4.33	2.61	1.615	0.5537	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric			5.97		6.0	
WAP-01	11/16	31%	4-4	3.53	4	5.798	5.97	2.575	1.605	0.4548	5	pCi/Ł	Y	3	0	Yes	No	Decreasing	Hon parametria			3.57		0.0	
WAP-10	16/16	0%	-	5.17	5.485	6.753	6.91	1.679	1.296	0.2505	5	pCi/Ł	Y	10	0	No	No	Stable	Normal	3.810	Y		N		FALSE
WAP-20	9/16	44%	4-4	3.09	4	4.35	4.38	1.895	1.377	0.4457	5	pCi/Ł	N	0	0	No	No	Decreasing	Non-parametric	2.160	Y		N		FALSE
WAP-21	12/16	25%	4-4	3.52	4	5.198	5.67	2.763	1.662	0.4719	5	pCi/L	Y	2	0	No	No	Decreasing	Normal	4.980	Y		N		FALSE
						CCI	R Appendix-N	: Selenium, Tota	(mg/L)																
WBW-1	0/15	100%	0.01-0.02	0.0113	0.01	0.02		0.00001238	0.003519	0.3105	0.05	mg/l	N	0	0	NA	NA	NA	NA NA			0.020		0.050	
WAP-01	0/17	100%	0.01-0.02	0.0112	0.01	0.02		0.00001103	0.003321	0.2971	0.05	mg/L	N	0	0	NA	NA	NA				0.020			
WAP-10	0/17	100%	0.01-0.02	0.0112	0.01	0.02		0.00001103	0.003321	0.2971	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-20	0/13	100%	0.01-0.02	0.0115	0.01	0.02		0.0000141	0.003755	0.3255	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N		N		FALSE
WAP-21	0/12	100%	0.01-0.02	0.0117	0.01	0.02		0.00001515	0.003892	0.3336	0.05	mg/L	N	0	0	NA	NA	NA	NA	N5			N		FALSE
						CC	R Appendix-P	V: Thallium, Total	(mg/L)																
WBW-1	0/14	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA NA	NA NA			0.001		0.002	
WAP-01	0/14	100%	0.0001-0.001	0.000936	0.001	0.001		5.786E-08	0.0002405	0.2571	0.002	mg/L	N	0	0	NA	NA	NA				0.001			
WAP-10	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	N5			N		FALSE
WAP-20	1/13	92%	0.001-0.001	0.00105	0.001	0.00124	0.0016	2.769E-08	0.0001664	0.1591	0.002	mg/L	N	0	0	No	No	NA	Non-parametric	0.001	N		N		FALSE
WAP-21	0/12	100%	0.001-0.001	0.001	0.001	0.001		O	O	O	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS			N		FALSE

NS=Not Sampled

Appendix B – Laboratory Analytical Reports



SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AE96379 Location: GW Well WAP-1 Date: 02/15/2021 Sample Collector: MDG/DEW

Loc. Code WAP-1 Time: 13:37

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	8.3	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	52.9	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Boron	24.0	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	2.1	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	1.5	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	4930	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	<10	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	0.422	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.34	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.76	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	7.18	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	24.6	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	67.50	mg/L	02/19/2021	KCWELLS	SM 2540C
рН	4.20	SU	02/15/2021	DEW/MDG	
Spec. Cond.	85.0	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	0.650	ppm	02/15/2021	DEW/MDG	
Oxidation Reduction Potential	227	mv	02/15/2021	DEW/MDG	SM2580
Temp	14.13	С	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	4.16	Feet	02/15/2021	DEW/MDG	
Elevation	25.28	Feet	03/08/2021	DEWEST	
Aluminum	1.6	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	0.79	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

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





Sample # AF09050 Location: GW Well WAP-1 Date: 07/20/2021 Sample Collector: MDG/BRT

Loc. Code WAP-1 Time: 12:28

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	54.7	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	26.0	ug/L	08/13/2021	R&C	EPA 6010D
Calcium	2.2	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Cobalt	1.6	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	7890	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	08/09/2021	R&C	EPA 7470
Lithium	<10	ug/L	08/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/10/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	1.05	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.96	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.01	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	8.76	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	27.8	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	78.75	mg/L	07/26/2021	KCWELLS	SM 2540C
рН	4.24	SU	07/20/2021	BRT/MDG	
Spec. Cond.	88	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.440	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	133	mv	07/20/2021	BRT/MDG	SM2580
Temp	28.33	С	07/20/2021	BRT/MDG	
Turbidity	0.900	NTU	07/20/2021	BRT/MDG	
Depth	6.14	Feet	07/20/2021	BRT/MDG	
Elevation	23.30	Feet	08/18/2021	MDGOINGS	
Aluminum	1.1	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	0.66	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Zinc	33.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96412 Location: GW Well WBW-1 Date: 02/15/2021 Sample Collector: MDG/DEW

Loc. Code WBW-1 Time: 12:21

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Barium	9.7	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Boron	<15	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	0.51	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	<10	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.453	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.24	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.69	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	1.77	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	6.41	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	32.50	mg/L	02/22/2021	KCWELLS	SM 2540C
рН	4.20	SU	02/15/2021	DEW/MDG	
Spec. Cond.	28.0	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	0.720	ppm	02/15/2021	DEW/MDG	
Oxidation Reduction Potential	339	mv	02/15/2021	DEW/MDG	SM2580
Temp	14.41	С	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	3.32	Feet	02/15/2021	DEW/MDG	
Elevation	28.65	Feet	03/08/2021	DEWEST	

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





Sample # AF09083 Location: GW Well WBW-1 Date: 07/20/2021 Sample Collector: MDG/BRT

Loc. Code WBW-1 Time: 11:07

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	23.7	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	<15	ug/L	08/13/2021	R&C	EPA 6010D
Calcium	1.2	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	2.3	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Chromium	5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	08/09/2021	R&C	EPA 7470
Lithium	<10	ug/L	08/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/10/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Radium 226	0.602	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.0240	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.626	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	4.62	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	5.84	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	68.75	mg/L	07/26/2021	KCWELLS	SM 2540C
рН	4.77	SU	07/20/2021	BRT/MDG	
Spec. Cond.	42.0	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.690	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	121	mv	07/20/2021	BRT/MDG	SM2580
Temp	24.72	С	07/20/2021	BRT/MDG	
Turbidity	0	NTU	07/20/2021	BRT/MDG	
Depth	18.27	Feet	07/20/2021	BRT/MDG	
Elevation	13.70	Feet	08/18/2021	MDGOINGS	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96403 Location: GW Well WAP-18 Date: 02/16/2021 Sample Collector: MDG/DEW

Loc. Code WAP-18 Time: 11:33

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	442	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Barium	91.5	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Boron	7500	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	324	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	0.68	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	0.85	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	540	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	2900	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.298	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.24	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.54	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	27.5	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	1.39	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	692	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1428	mg/L	02/19/2021	KCWELLS	SM 2540C
pH	6.37	SU	02/16/2021	DEW/MDG	
Spec. Cond.	1610	uS	02/16/2021	DEW/MDG	
Dissolved Oxygen	0.760	ppm	02/16/2021	DEW/MDG	
Oxidation Reduction Potential	87.0	mv	02/16/2021	DEW/MDG	SM2580
Temp	21.07	С	02/16/2021	DEW/MDG	
Turbidity	2.70	NTU	02/16/2021	DEW/MDG	
Depth	22.72	Feet	02/16/2021	DEW/MDG	
Elevation	20.33	Feet	03/08/2021	DEWEST	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

Sample # AF09074 Location: GW Well WAP-18 Date: 08/04/2021 Sample Collector: MDG/BRT

LAB CERTIFICATION #08552

Loc. Code WAP-18 **Time**: 12:16

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	132	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	141	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	3500	ug/L	08/19/2021	R&C	EPA 6010D
Calcium	335	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	3.3	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	500	ug/L	08/19/2021	R&C	EPA 6010D
Molybdenum	90.0	ug/L	08/19/2021	R&C	EPA 6010D
Radium 226	0.578	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Radium 228	1.45	pCi/L	09/02/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.03	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	92.1	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	2.51	mg/L	08/26/2021	KCWELLS	EPA 300.0
Sulfate	750	mg/L	08/26/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1431	mg/L	08/14/2021	SJBROWN	SM 2540C
рН	5.21	SU	08/04/2021	BRT/MDG	
Spec. Cond.	1680	uS	08/04/2021	BRT/MDG	
Dissolved Oxygen	0.560	ppm	08/04/2021	BRT/MDG	
Oxidation Reduction Potential	166	mv	08/04/2021	BRT/MDG	SM2580
Temp	24.05	С	08/04/2021	BRT/MDG	
Turbidity	8.40	NTU	08/04/2021	BRT/MDG	
Depth	19.08	Feet	08/04/2021	BRT/MDG	
Elevation	23.97	Feet	08/18/2021	MDGOINGS	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96404 Location: GW Well WAP-19 Date: 02/16/2021 Sample Collector: MDG/DEW

Loc. Code WAP-19 **Time**: 14:25

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	120	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Barium	39.6	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Boron	3500	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	325	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	290	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	41.0	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.355	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.83	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.18	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	64.8	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	0.17	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	800	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1510	mg/L	02/19/2021	KCWELLS	SM 2540C
рН	6.32	SU	02/16/2021	DEW/MDG	
Spec. Cond.	1740	uS	02/16/2021	DEW/MDG	
Dissolved Oxygen	0.450	ppm	02/16/2021	DEW/MDG	
Oxidation Reduction Potential	1.00	mν	02/16/2021	DEW/MDG	SM2580
Temp	22.54	С	02/16/2021	DEW/MDG	
Turbidity	22.0	NTU	02/16/2021	DEW/MDG	
Depth	20.45	Feet	02/16/2021	DEW/MDG	
Elevation	22.94	Feet	03/08/2021	DEWEST	

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





Sample # AF09075 Location: GW Well WAP-19 Date: 08/03/2021 Sample Collector: BRT/CWS

Loc. Code WAP-19 **Time**: 11:30

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	147	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	51.2	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	4000	ug/L	08/19/2021	R&C	EPA 6010D
Calcium	342	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	240	ug/L	08/19/2021	R&C	EPA 6010D
Molybdenum	24.0	ug/L	08/19/2021	R&C	EPA 6010D
Radium 226	0.726	pCi/L	08/31/2021	GEL	EPA 903.1 Mod
Radium 228	0.899	pCi/L	09/07/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.63	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	122	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	0.26	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	775	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1582	mg/L	08/14/2021	SJBROWN	SM 2540C
рН	6.37	SU	08/03/2021	BRT/CS	
Spec. Cond.	1910	uS	08/03/2021	BRT/CS	
Dissolved Oxygen	0.480	ppm	08/03/2021	BRT/CS	
Oxidation Reduction Potential	-59.0	mv	08/03/2021	BRT/CS	SM2580
Temp	23.64	С	08/03/2021	BRT/CS	
Turbidity	6.80	NTU	08/03/2021	BRT/CS	
Depth	22.35	Feet	08/03/2021	BRT/CS	
Elevation	21.04	Feet	08/18/2021	MDGOINGS	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96405 Location: GW Well WAP-20 Date: 02/16/2021 Sample Collector: MDG/DEW

Loc. Code WAP-20 Time: 15:30

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	23.8	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Barium	35.4	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Boron	570	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	54.2	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	290	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	140	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.327	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	0.550	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.877	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	8.53	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	0.65	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	96.3	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	340.0	mg/L	02/19/2021	KCWELLS	SM 2540C
рН	5.84	SU	02/16/2021	DEW/MDG	
Spec. Cond.	333	uS	02/16/2021	DEW/MDG	
Dissolved Oxygen	0.890	ppm	02/16/2021	DEW/MDG	
Oxidation Reduction Potential	65.0	m∨	02/16/2021	DEW/MDG	SM2580
Temp	21.32	С	02/16/2021	DEW/MDG	
Turbidity	1.60	NTU	02/16/2021	DEW/MDG	
Depth	18.79	Feet	02/16/2021	DEW/MDG	
Elevation	24.29	Feet	03/08/2021	DEWEST	

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





Sample # AF09076 Location: GW Well WAP-20 Date: 08/10/2021 Sample Collector: BSB/MDG

Loc. Code WAP-20 **Time**: 15:36

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	19.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	45.1	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	1800	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	49.3	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	08/18/2021	R&C	EPA 7470
Lithium	41.0	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	21.0	ug/L	08/17/2021	R&C	EPA 6010D
Lead	1.3	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Radium 226	0.540	pCi/L	08/31/2021	GEL	EPA 903.1 Mod
Radium 228	1.62	pCi/L	09/02/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.16	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	92.3	mg/L	08/17/2021	KCWELLS	EPA 300.0
Fluoride	0.23	mg/L	08/17/2021	KCWELLS	EPA 300.0
Sulfate	<2.0	mg/L	08/17/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	452.5	mg/L	08/18/2021	SJBROWN	SM 2540C
рН	6.24	SU	08/10/2021	BRT/CS	
Spec. Cond.	784	uS	08/10/2021	BRT/CS	
Dissolved Oxygen	0.490	ppm	08/10/2021	BRT/CS	
Oxidation Reduction Potential	-84.0	mv	08/10/2021	BRT/CS	SM2580
Temp	25.19	С	08/10/2021	BRT/CS	
Turbidity	585	NTU	08/10/2021	BRT/CS	
Depth	21.78	Feet	08/10/2021	BRT/CS	
Elevation	21.30	Feet	08/18/2021	MDGOINGS	

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:



Linda Williams - Supervisor Analytical Services



SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96407 Location: GW Well WAP-22 Date: 02/16/2021 Sample Collector: MDG/DEW

Loc. Code WAP-22 Time: 13:13

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Lithium	43.0	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	02/23/2021	R&C	EPA 6010D
рН	6.58	SU	02/16/2021	DEW/MDG	
Spec. Cond.	2390	uS	02/16/2021	DEW/MDG	
Dissolved Oxygen	0.790	ppm	02/16/2021	DEW/MDG	
Oxidation Reduction Potential	-62.0	mv	02/16/2021	DEW/MDG	SM2580
Temp	20.98	С	02/16/2021	DEW/MDG	
Turbidity	0	NTU	02/16/2021	DEW/MDG	
Depth	23.42	Feet	02/16/2021	DEW/MDG	
Elevation	19.95	Feet	03/08/2021	DEWEST	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF09078 Location: GW Well WAP-22 Date: 08/04/2021 Sample Collector: MDG/BRT

Loc. Code WAP-22 Time: 13:31

- Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.1	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	67.0	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
pН	6.90	SU	08/04/2021	BRT/MDG	
Spec. Cond.	1980	uS	08/04/2021	BRT/MDG	
Dissolved Oxygen	0.470	ppm	08/04/2021	BRT/MDG	
Oxidation Reduction Potential	-140	mv	08/04/2021	BRT/MDG	SM2580
Temp	24.10	С	08/04/2021	BRT/MDG	
Turbidity	6.00	NTU	08/04/2021	BRT/MDG	
Depth	22.33	Feet	08/04/2021	BRT/MDG	
Elevation	21.04	Feet	08/18/2021	MDGOINGS	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96388 Location: GW Well WAP-10 Date: 02/17/2021 Sample Collector: MDG/DEW

Loc. Code WAP-10 Time: 13:57

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	298	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Calcium	515	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	23600	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	26.0	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	2.88	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	2.96	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.83	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	753	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	770	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2889	mg/L	02/22/2021	KCWELLS	SM 2540C
pН	6.38	SU	02/17/2021	DEW/BSB	
Spec. Cond.	3910	uS	02/17/2021	DEW/BSB	
Dissolved Oxygen	0.540	ppm	02/17/2021	DEW/BSB	
Oxidation Reduction Potential	-46.0	mv	02/17/2021	DEW/BSB	SM2580
Temp	17.41	С	02/17/2021	DEW/BSB	
Turbidity	36.6	NTU	02/17/2021	DEW/BSB	
Depth	4.36	Feet	02/17/2021	DEW/BSB	
Elevation	21.75	Feet	03/08/2021	DEWEST	
Aluminum	<0.10	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	81.6	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

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





Sample # AE96389 Location: GW Well WAP-10 Date: 02/17/2021 Sample Collector: MDG/DEW

Loc. Code WAP-10 Time: 14:02

Loc. Code WAP-10	Du	Duplicate		1 ime: 14.02			
Analy	sis	Result	Units	Test Date	Analyst	Method	
	Arsenic	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Barium	305	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Calcium	476	mg/L	03/08/2021	SJHATCHE	EPA 6020B	
	Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Cobalt	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Iron	24800	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470	
	Lithium	25.0	ug/L	12/30/1999	R&C	EPA 6010D	
M	olybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D	
	Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
	Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B	
F	Radium 226	1.63	pCi/L	03/12/2021	GEL	EPA 903.1 Mod	
F	Radium 228	1.53	pCi/L	03/03/2021	GEL	EPA 904.0	
Radium 226/228	Combined Calculation	3.16	pCi/L	03/16/2021	GEL	EPA 903.1 Mod	
	Chloride	745	mg/L	02/18/2021	KCWELLS	EPA 300.0	
	Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0	
	Sulfate	763	mg/L	02/18/2021	KCWELLS	EPA 300.0	
Total Disso	lved Solids	2912	mg/L	02/22/2021	KCWELLS	SM 2540C	
	Aluminum	<0.10	mg/L	03/08/2021	SJHATCHE	EPA 6020B	
1	Magnesium	80.7	mg/L	03/09/2021	SJHATCHE	EPA 6020B	
	Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B	

Comments:

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





Sample # AF09059 Location: GW Well WAP-10 Date: 08/02/2021 Sample Collector: MDG/BRT

Loc. Code WAP-10 **Time**: 11:34

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	291	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	8800	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	622	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	20400	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Lithium	25.0	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	3.81	pCi/L	08/31/2021	GEL	EPA 903.1 Mod
Radium 228	-0.0936	pCi/L	09/02/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.81	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	843	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	843	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	3032	mg/L	08/10/2021	SJBROWN	SM 2540C
рН	6.44	SU	08/02/2021	BRT/MDG	
Spec. Cond.	4000	uS	08/02/2021	BRT/MDG	
Dissolved Oxygen	0.430	ppm	08/02/2021	BRT/MDG	
Oxidation Reduction Potential	-110	mv	08/02/2021	BRT/MDG	SM2580
Temp	24.72	С	08/02/2021	BRT/MDG	
Turbidity	4.20	NTU	08/02/2021	BRT/MDG	
Depth	4.98	Feet	08/02/2021	BRT/MDG	
Elevation	21.13	Feet	08/18/2021	MDGOINGS	
Aluminum	<0.10	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	85.6	mg/L	08/26/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

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





Sample # AF09060 Location: GW Well WAP-10 Date: 08/02/2021 Sample Collector: MDG/BRT

Loc. Code WAP-10 Time: 11:39

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Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	301	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	8700	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	618	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	20400	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Lithium	25.0	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	2.55	pCi/L	08/31/2021	GEL	EPA 903.1 Mod
Radium 228	3.33	pCi/L	09/02/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.88	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	800	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	797	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	3544	mg/L	08/10/2021	SJBROWN	SM 2540C
Aluminum	<0.10	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	80.7	mg/L	08/26/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96406 Location: GW Well WAP-21 Date: 02/17/2021 Sample Collector: MDG/DEW

Loc. Code WAP-21 Time: 12:35

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Barium	20.4	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Boron	2400	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	76.4	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	<10	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.646	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.48	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.13	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	15.2	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	68.5	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	403.8	mg/L	02/22/2021	KCWELLS	SM 2540C
рН	6.20	SU	02/17/2021	DEW/BSB	
Spec. Cond.	479	uS	02/17/2021	DEW/BSB	
Dissolved Oxygen	0.570	ppm	02/17/2021	DEW/BSB	
Oxidation Reduction Potential	35.0	mv	02/17/2021	DEW/BSB	SM2580
Temp	17.82	С	02/17/2021	DEW/BSB	
Turbidity	0	NTU	02/17/2021	DEW/BSB	
Depth	18.86	Feet	02/17/2021	DEW/BSB	
Elevation	24.20	Feet	03/08/2021	DEWEST	

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





Sample # AF09077 Location: GW Well WAP-21 Date: 08/03/2021 Sample Collector: BRT/CWS

Loc. Code WAP-21 Time: 16:27

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	28.4	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	2200	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	76.3	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	<10	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
Radium 226	0.436	pCi/L	08/31/2021	GEL	EPA 903.1 Mod
Radium 228	4.54	pCi/L	09/02/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.98	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	11.5	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	29.5	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	357.5	mg/L	08/14/2021	SJBROWN	SM 2540C
рН	6.13	SU	08/03/2021	BRT/CS	
Spec. Cond.	455	uS	08/03/2021	BRT/CS	
Dissolved Oxygen	0.490	ppm	08/03/2021	BRT/CS	
Oxidation Reduction Potential	-57.0	mv	08/03/2021	BRT/CS	SM2580
Temp	23.67	С	08/03/2021	BRT/CS	
Turbidity	21.0	NTU	08/03/2021	BRT/CS	
Depth	21.46	Feet	08/03/2021	BRT/CS	
Elevation	21.60	Feet	08/18/2021	MDGOINGS	

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





AE96408

Sample #

One Riverwood Drive P.O. Box 2946101 Moncks Corner, SC 29461-2901 (843) 761-8000

Sample Collector:

MDG/DEW

SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Date: 02/17/2021

Loc. Code WAP-23 Time: 11:26

GW Well WAP-23

Location:

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Lithium	11.0	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	02/23/2021	R&C	EPA 6010D
pН	6.73	SU	02/17/2021	DEW/BSB	
Spec. Cond.	937	uS	02/17/2021	DEW/BSB	
Dissolved Oxygen	0.640	ppm	02/17/2021	DEW/BSB	
Oxidation Reduction Potential	-58.0	mv	02/17/2021	DEW/BSB	SM2580
Temp	18.91	С	02/17/2021	DEW/BSB	
Turbidity	4.50	NTU	02/17/2021	DEW/BSB	
Depth	20.20	Feet	02/17/2021	DEW/BSB	
Elevation	23.03	Feet	03/08/2021	DEWEST	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF09079 Location: GW Well WAP-23 Date: 08/03/2021 Sample Collector: BRT/CWS

Loc. Code WAP-23 **Time**: 12:36

- Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	12.0	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
pН	6.61	SU	08/03/2021	BRT/CS	
Spec. Cond.	1060	uS	08/03/2021	BRT/CS	
Dissolved Oxygen	0.390	ppm	08/03/2021	BRT/CS	
Oxidation Reduction Potential	-102	mv	08/03/2021	BRT/CS	SM2580
Temp	22.99	С	08/03/2021	BRT/CS	
Turbidity	12.8	NTU	08/03/2021	BRT/CS	
Depth	21.83	Feet	08/03/2021	BRT/CS	
Elevation	21.40	Feet	08/18/2021	MDGOINGS	

Comments:

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96387 Location: GW Well WAP-9 Date: 02/23/2021 Sample Collector: MDG/DEW

Loc. Code WAP-9 Time: 12:49

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	101	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	57.6	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Calcium	121	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	2450	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/08/2021	R&C	EPA 7470
Lithium	69.0	ug/L	03/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/04/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	1.07	pCi/L	03/04/2021	GEL	EPA 903.1 Mod
Radium 228	2.59	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.65	pCi/L	03/24/2021	GEL	EPA 903.1 Mod
Chloride	83.9	mg/L	02/26/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/26/2021	KCWELLS	EPA 300.0
Sulfate	172.3	mg/L	02/26/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	716.2	mg/L	03/01/2021	KCWELLS	SM 2540C
рН	5.68	SU	02/23/2021	DEW/MDG	
Spec. Cond.	748	uS	02/23/2021	DEW/MDG	
Dissolved Oxygen	0.450	ppm	02/23/2021	DEW/MDG	
Oxidation Reduction Potential	17.0	mv	02/23/2021	DEW/MDG	SM2580
Temp	18.93	С	02/23/2021	DEW/MDG	
Turbidity	0	NTU	02/23/2021	DEW/MDG	
Depth	8.83	Feet	02/23/2021	DEW/MDG	
Elevation	19.21	Feet	03/08/2021	DEWEST	
Aluminum	0.48	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	24.3	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

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





Sample # AF09058 Location: GW Well WAP-9 Date: 08/02/2021 Sample Collector: MDG/BRT

Loc. Code WAP-9 **Time**: 13:39

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	84.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	76.2	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	4600	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	182	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	865	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Lithium	57.0	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	1.27	pCi/L	08/31/2021	GEL	EPA 903.1 Mod
Radium 228	2.19	pCi/L	09/02/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.46	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	77.7	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	197	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	941.2	mg/L	08/10/2021	SJBROWN	SM 2540C
рН	5.97	SU	08/02/2021	BRT/MDG	
Spec. Cond.	1160	uS	08/02/2021	BRT/MDG	
Dissolved Oxygen	0.290	ppm	08/02/2021	BRT/MDG	
Oxidation Reduction Potential	-69.0	mv	08/02/2021	BRT/MDG	SM2580
Temp	28.14	С	08/02/2021	BRT/MDG	
Turbidity	4.20	NTU	08/02/2021	BRT/MDG	
Depth	9.70	Feet	08/02/2021	BRT/MDG	
Elevation	18.34	Feet	08/18/2021	MDGOINGS	
Aluminum	0.36	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	36.9	mg/L	08/25/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96401 Location: GW Well WAP-17 Date: 03/02/2021 Sample Collector: DEW/TG/DJ

Loc. Code WAP-17 Time: 10:48

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	90.6	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Barium	23.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Boron	2800.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	136	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	< 0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	160	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	110	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.250	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	0.141	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.390	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	45.3	mg/L	03/04/2021	KCWELLS	EPA 300.0
Fluoride	0.32	mg/L	03/04/2021	KCWELLS	EPA 300.0
Sulfate	348	mg/L	03/04/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	812.5	mg/L	03/05/2021	KCWELLS	SM 2540C
рН	5.88	SU	03/02/2021	DEW/DJ/TG	
Spec. Cond.	743	uS	03/02/2021	DEW/DJ/TG	
Dissolved Oxygen	0.610	ppm	03/02/2021	DEW/DJ/TG	
Oxidation Reduction Potential	84.0	mν	03/02/2021	DEW/DJ/TG	SM2580
Temp	17.22	С	03/02/2021	DEW/DJ/TG	
Turbidity	0	NTU	03/02/2021	DEW/DJ/TG	
Depth	8.89	Feet	03/02/2021	DEW/DJ/TG	
Elevation	20.38	Feet	03/08/2021	DEWEST	

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



SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AE96402 Location: GW Well WAP-17 Date: 03/02/2021 Sample Collector: DEW/TG/DJ

Loc. Code WAP-17 Time: 10:53

D	Duplicate					
Analysis	Result	Units	Test Date	Analyst	Method	
Arsenic	95.4	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Barium	23.4	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Beryllium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Boron	2900.0	ug/L	03/15/2021	R&C	EPA 6010D	
Calcium	136	mg/L	03/25/2021	SJHATCHE	EPA 6020B	
Cadmium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Cobalt	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470	
Lithium	150	ug/L	03/11/2021	R&C	EPA 6010D	
Molybdenum	110	ug/L	03/11/2021	R&C	EPA 6010D	
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B	
Radium 226	0.308	pCi/L	04/01/2021	GEL	EPA 903.1 Mod	
Radium 228	0.794	pCi/L	03/23/2021	GEL	EPA 904.0	
Radium 226/228 Combined Calculation	1.10	pCi/L	04/01/2021	GEL	EPA 903.1 Mod	
Chloride	47.1	mg/L	03/04/2021	KCWELLS	EPA 300.0	
Fluoride	0.29	mg/L	03/04/2021	KCWELLS	EPA 300.0	
Sulfate	359	mg/L	03/04/2021	KCWELLS	EPA 300.0	
Total Dissolved Solids	693.8	mg/L	03/05/2021	KCWELLS	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





Sample # AF00695 Location: GW Well WAP-17 Date: 04/08/2021 Sample Collector: DEW/MDG

Loc. Code WAP-17 **Time**: 13:31

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	108	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Barium	26.9	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Boron	3300	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	180	mg/L	04/26/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	130	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	59	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	<1.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Radium 226	0.172	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.85	pCi/L	04/20/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.02	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	66.6	mg/L	04/20/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	04/20/2021	KCWELLS	EPA 300.0
Sulfate	432	mg/L	04/20/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1015	mg/L	04/16/2021	SJBROWN	SM 2540C
Hq	6.22	SU	04/08/2021	DEW/MDG	
Spec. Cond.	1140	uS	04/08/2021	DEW/MDG	
Dissolved Oxygen	0.390	ppm	04/08/2021	DEW/MDG	
Oxidation Reduction Potential	19.0	mv	04/08/2021	DEW/MDG	SM2580
Temp	23.83	С	04/08/2021	DEW/MDG	
Turbidity	0	NTU	04/08/2021	DEW/MDG	
Depth	6.98	Feet	04/08/2021	DEW/MDG	
Elevation	19.90	Feet	04/22/2021	DEWEST	

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:



Linda Williams - Supervisor Analytical Services



Sample # AF00696 Location: GW Well WAP-17 Date: 04/08/2021 Sample Collector: DEW/MDG

Loc. Code WAP-17 Time: 13:36

DC	JP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	110	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Barium	28.4	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Boron	3300	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	188	mg/L	04/26/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	120	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	57	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	<1.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	04/26/2021	SJHATCHE	EPA 6020B
Radium 226	1.02	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	4.17	pCi/L	04/20/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.19	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	65.8	mg/L	04/20/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	04/20/2021	KCWELLS	EPA 300.0
Sulfate	426	mg/L	04/20/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	967.5	mg/L	04/16/2021	SJBROWN	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





Sample # AF09072 Location: GW Well WAP-17 Date: 08/02/2021 Sample Collector: MDG/BRT

Loc. Code WAP-17 **Time**: 15:12

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	89.5	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	52.9	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	4100	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	247	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	12.0	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	12.0	ug/L	08/17/2021	R&C	EPA 6010D
Radium 226	0.811	pCi/L	08/31/2021	GEL	EPA 903.1 Mod
Radium 228	2.23	pCi/L	09/02/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.04	pCi/L	09/07/2021	GEL	EPA 903.1 Mod
Chloride	198	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	607	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1321	mg/L	08/10/2021	SJBROWN	SM 2540C
рН	5.82	SU	08/02/2021	BRT/MDG	
Spec. Cond.	1660	uS	08/02/2021	BRT/MDG	
Dissolved Oxygen	0.390	ppm	08/02/2021	BRT/MDG	
Oxidation Reduction Potential	-49.0	mv	08/02/2021	BRT/MDG	SM2580
Temp	29.17	С	08/02/2021	BRT/MDG	
Turbidity	12.7	NTU	08/02/2021	BRT/MDG	
Depth	6.24	Feet	08/02/2021	BRT/MDG	
Elevation	20.64	Feet	08/20/2021	MDGOINGS	

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



SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09073 Location: GW Well WAP-17 Date: 08/02/2021 Sample Collector: MDG/BRT

Loc. Code WAP-17 Time: 15:17

DUP					
Result	Units	Test Date	Analyst	Method	
90.5	ug/L	08/31/2021	SJHATCHE	EPA 6020B	
51.7	ug/L	08/31/2021	SJHATCHE	EPA 6020B	
3900	ug/L	08/17/2021	R&C	EPA 6010D	
244	mg/L	08/31/2021	SJHATCHE	EPA 6020B	
<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B	
11.0	ug/L	08/17/2021	R&C	EPA 6010D	
14.0	ug/L	08/17/2021	R&C	EPA 6010D	
0.854	pCi/L	08/31/2021	GEL	EPA 903.1 Mod	
2.68	pCi/L	09/02/2021	GEL	EPA 904.0	
3.53	pCi/L	09/07/2021	GEL	EPA 903.1 Mod	
195	mg/L	08/11/2021	KCWELLS	EPA 300.0	
<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0	
600	mg/L	08/11/2021	KCWELLS	EPA 300.0	
1286	mg/L	08/10/2021	SJBROWN	SM 2540C	
	Result 90.5 51.7 3900 244 <0.50 11.0 14.0 0.854 2.68 3.53 195 <0.10 600	Result Units 90.5 ug/L 51.7 ug/L 3900 ug/L 244 mg/L <0.50	Result Units Test Date 90.5 ug/L 08/31/2021 51.7 ug/L 08/31/2021 3900 ug/L 08/17/2021 244 mg/L 08/31/2021 <0.50	Result Units Test Date Analyst 90.5 ug/L 08/31/2021 SJHATCHE 51.7 ug/L 08/31/2021 SJHATCHE 3900 ug/L 08/17/2021 R&C 244 mg/L 08/31/2021 SJHATCHE <0.50	

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





SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AE96409 Location: GW Well WAP-24 Date: 03/02/2021 Sample Collector: DEW/TG/DJ

Loc. Code WAP-24 Time: 11:28

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
pН	7.59	SU	03/02/2021	DEW/DJ/TG	
Spec. Cond.	309	uS	03/02/2021	DEW/DJ/TG	
Dissolved Oxygen	5.30	ppm	03/02/2021	DEW/DJ/TG	
Oxidation Reduction Potential	72.0	mv	03/02/2021	DEW/DJ/TG	SM2580
Temp	18.53	С	03/02/2021	DEW/DJ/TG	
Turbidity	1.60	NTU	03/02/2021	DEW/DJ/TG	
Depth	6.25	Feet	03/02/2021	DEW/DJ/TG	
Elevation	22.52	Feet	03/08/2021	DEWEST	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF09080 Location: GW Well WAP-24 Date: 08/02/2021 Sample Collector: MDG/BRT

Loc. Code WAP-24 **Time**: 12:50

- Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	<10	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
pН	7.53	SU	08/02/2021	BRT/MDG	
Spec. Cond.	340	uS	08/02/2021	BRT/MDG	
Dissolved Oxygen	0.410	ppm	08/02/2021	BRT/MDG	
Oxidation Reduction Potential	-166	mv	08/02/2021	BRT/MDG	SM2580
Temp	27.40	С	08/02/2021	BRT/MDG	
Turbidity	6.30	NTU	08/02/2021	BRT/MDG	
Depth	7.57	Feet	08/02/2021	BRT/MDG	
Elevation	21.20	Feet	08/18/2021	MDGOINGS	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96411 Location: GW Well WAP-26 Date: 03/02/2021 Sample Collector: DEW/TG/DJ

Loc. Code WAP-26 Time: 15:13

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
pН	5.03	SU	03/02/2021	DEW/DJ/TG	
Spec. Cond.	191	uS	03/02/2021	DEW/DJ/TG	
Dissolved Oxygen	0.720	ppm	03/02/2021	DEW/DJ/TG	
Oxidation Reduction Potential	74.0	mv	03/02/2021	DEW/DJ/TG	SM2580
Temp	17.86	С	03/02/2021	DEW/DJ/TG	
Turbidity	3.10	NTU	03/02/2021	DEW/DJ/TG	
Depth	6.52	Feet	03/02/2021	DEW/DJ/TG	
Elevation	21.04	Feet	03/08/2021	DEWEST	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF09082 Location: GW Well WAP-26 Date: 08/10/2021 Sample Collector: BSB/MDG

Loc. Code WAP-26 **Time**: 11:46

- Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	<10	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
pН	4.72	SU	08/10/2021	MDG/BSB	
Spec. Cond.	184	uS	08/10/2021	MDG/BSB	
Dissolved Oxygen	0.510	ppm	08/10/2021	MDG/BSB	
Oxidation Reduction Potential	103	mv	08/10/2021	MDG/BSB	SM2580
Temp	27.54	С	08/10/2021	MDG/BSB	
Turbidity	0	NTU	08/10/2021	MDG/BSB	
Depth	7.49	Feet	08/10/2021	MDG/BSB	
Elevation	20.07	Feet	08/18/2021	MDGOINGS	

Comments:

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





One Riverwood Drive P.O. Box 2946101 Moncks Corner, SC 29461-2901 (843) 761-8000

SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96410 Location: GW Well WAP-25 Date: 03/04/2021 Sample Collector: DEW/ML

Loc. Code WAP-25 Time: 10:36

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/26/2021	SJHATCHE	EPA 6020B
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
рН	6.93	SU	03/04/2021	DEW/ML	
Spec. Cond.	348	uS	03/04/2021	DEW/ML	
Dissolved Oxygen	0.630	ppm	03/04/2021	DEW/ML	
Oxidation Reduction Potential	-115	mv	03/04/2021	DEW/ML	SM2580
Temp	18.69	С	03/04/2021	DEW/ML	
Turbidity	0	NTU	03/04/2021	DEW/ML	
Depth	8.05	Feet	03/04/2021	DEW/ML	
Elevation	19.05	Feet	03/08/2021	DEWEST	

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:





One Riverwood Drive P.O. Box 2946101 Moncks Comer, SC 29461-2901 (843) 761-8000

SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF09081 Location: GW Well WAP-25 Date: 08/10/2021 Sample Collector: BSB/MDG

Loc. Code WAP-25 **Time**: 13:32

- Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Lithium	<10	ug/L	08/17/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/17/2021	R&C	EPA 6010D
pН	7.05	SU	08/10/2021	MDG/BSB	
Spec. Cond.	345	uS	08/10/2021	MDG/BSB	
Dissolved Oxygen	1.02	ppm	08/10/2021	MDG/BSB	
Oxidation Reduction Potential	-145	mv	08/10/2021	MDG/BSB	SM2580
Temp	23.55	С	08/10/2021	MDG/BSB	
Turbidity	0	NTU	08/10/2021	MDG/BSB	
Depth	7.92	Feet	08/10/2021	MDG/BSB	
Elevation	19.18	Feet	08/18/2021	MDGOINGS	

Comments:

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

Analysis Validated:







Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project: Work Order: Ground Water

1021082

Received:

02/19/2021 10:20

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on February 19, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

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We strive to provide excellent service to our clients. Please contact Karen Upshur, your Project Manager, at kupshur@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Marin Heires-Upshin

Report Approved By:

Karen Upshur Project Manager

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Page 1 of 12





South Carolina Greenville Laboratory Identification 23105 South Carolina Columbia Laboratory Identification 40572 North Carolina Laboratory Certification Number 27 North Carolina Drinking Water Lab Number 45710 NELAP Utah Certificate Number SC000042014-1 Georgia Drinking Water Lab ID 880

Project: Ground Water
Work Order: 1021082

Received: 02/19/2021 10:20

Certificate of Analysis

Client Santee Cooper

Linda Williams
1 Riverwood Dr.

Moncks Corner, SC 29461

Sample Number	Sample Description	Matrix	Sampled	Type
1021082-01	AE96379 WAP-1	Ground Water	02/15/21 13:37	Grab
1021082-02	AE96380 WAP-2	Ground Water	02/15/21 14:40	Grab
1021082-03	AE96412 WBW-1	Ground Water	02/15/21 12:21	Grab
1021082-04	AE96403 WAP-18	Ground Water	02/16/21 11:33	Grab
1021082-05	AE96404 WAP-19	Ground Water	02/16/21 14:25	Grab
1021082-06	AE96405 WAP-20	Ground Water	02/16/21 15:30	Grab
1021082-07	AE96407 WAP-22	Ground Water	02/16/21 13:13	Grab
1021082-08	AE96388 WAP-10	Ground Water	02/17/21 13:57	Grab
1021082-09	AE96389 WAP-10 DUP	Ground Water	02/17/21 14:02	Grab
1021082-10	AE96406 WAP-21	Ground Water	02/17/21 12:35	Grab
1021082-11	AE96408 WAP-23	Ground Water	02/17/21 11:26	Grab



Sample Data

Sample Number

1021082-01

Sample Description

AE96379 WAP-1 collected on 02/15/21 13:37

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:43	EPA 7470A		MLR	B1B1040
Boron	24	15	ug/L	1.00	02/23/21 19:06	EPA 6010D		MLR	B1B1006
Lithium	ND	10	ug/L	1.00	02/23/21 19:06	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 19:06	EPA 6010D		MLR	B1B1006

Sample Number

1021082-02

Sample Description

AE96380 WAP-2 collected on 02/15/21 14:40

		Reporting							
Parameter	Result	Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:23	EPA 7470A	S 7	MLR	B1B1040
Lithium	13	10	ug/L	1.00	02/23/21 20:20	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:20	EPA 6010D		MLR	B1B1006

Sample Number

1021082-03

Sample Description AE96412 WBW-1 collected on 02/15/21 12:21

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:45	EPA 7470A		MLR	B1B1040
Boron	ND	15	ug/L	1.00	02/23/21 19:26	EPA 6010D		MLR	B1B1006
Lithium	ND	10	ug/L	1.00	02/23/21 19:26	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 19:26	EPA 6010D		MLR	B1B1006

Sample Number

1021082-04

Sample Description AE96403 WAP-18 collected on 02/16/21 11:33

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:54	EPA 7470A		MLR	B1B1040
Boron	7500	15	ug/L	1.00	02/23/21 20:03	EPA 6010D		MLR	B1B1006
Lithium	540	10	ug/L	1.00	02/23/21 20:03	EPA 6010D		MLR	B1B1006
Molybdenum	2900	10	ug/L	1.00	02/23/21 20:03	EPA 6010D		MLR	B1B1006

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Project: Ground Water Work Order: 1021082

Reported: 02/26/21 13:41

Sample Number

1021082-05

Sample Description AE96404 WAP-19 collected on 02/16/21 14:25

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:57	EPA 7470A		MLR	B1B1040
Boron	3500	15	ug/L	1.00	02/23/21 20:07	EPA 6010D		MLR	B1B1006
Lithium	290	10	ug/L	1.00	02/23/21 20:07	EPA 6010D		MLR	B1B1006
Molybdenum	41	10	ug/L	1.00	02/23/21 20:07	EPA 6010D		MLR	B1B1006

Sample Number

1021082-06

Sample Description AE96405 WAP-20 collected on 02/16/21 15:30

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:00	EPA 7470A		MLR	B1B1040
Boron	570	15	ug/L	1.00	02/23/21 20:11	EPA 6010D		MLR	B1B1006
Lithium	290	10	ug/L	1.00	02/23/21 20:11	EPA 6010D		MLR	B1B1006
Molybdenum	140	10	ug/L	1.00	02/23/21 20:11	EPA 6010D		MLR	B1B1006

Sample Number

1021082-07

Sample Description AE96407 WAP-22 collected on 02/16/21 13:13

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	43	10	ug/L	1.00	02/23/21 20:33	EPA 6010D		MLR	B1B1006

Sample Number

1021082-08

Sample Description AE96388 WAP-10 collected on 02/17/21 13:57

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:02	EPA 7470A	S 7	MLR	B1B1040
Lithium	26	10	ug/L	1.00	02/23/21 20:24	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:24	EPA 6010D		MLR	B1B1006



Project: Ground Water
Work Order: 1021082

Reported: 02/26/21 13:41

Sample Number

1021082-09

Sample Description

AE96389 WAP-10 DUP collected on 02/17/21 14:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:05	EPA 7470A	S7	MLR	B1B1040
Lithium	25	10	ug/L	1.00	02/23/21 20:28	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:28	EPA 6010D		MLR	B1B1006

Sample Number

1021082-10

Sample Description

AE96406 WAP-21 collected on 02/17/21 12:35

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:08	EPA 7470A		MLR	B1B1040
Boron	2400	15	ug/L	1.00	02/23/21 20:15	EPA 6010D		MLR	B1B1006
Lithium	ND	10	ug/L	1.00	02/23/21 20:15	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:15	EPA 6010D		MLR	B1B1006

Sample Number

1021082-11

Sample Description

AE96408 WAP-23 collected on 02/17/21 11:26

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	11	10	ug/L	1.00	02/23/21 20:37	EPA 6010D		MLR	B1B1006



Total Metals Quality Control Summary

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1B1006 - EPA 3005A										
Blank (B1B1006-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1B1006-BS1)										
Boron	250	15	ug/L	250		98	80-120			
Lithium	255	10	ug/L	250		102	80-120			
Molybdenum	240	10	ug/L	250		97	80-120			
LCS Dup (B1B1006-BSD1)										
Boron	250	15	ug/L	250		99	80-120	0.8	20	
Lithium	257	10	ug/L	250		103	80-120	0.7	20	
Molybdenum	250	10	ug/L	250		99	80-120	2	20	
Matrix Spike (B1B1006-MS1)	Source: 1021082-01	ı								
Boron	250	15	ug/L	250	24	92	75-125			
Lithium	253	10	ug/L	250	ND	101	75-125			
Molybdenum	230	10	ug/L	250	ND	93	75-125			
Matrix Spike (B1B1006-MS2)	Source: 1021082-03	3								
Boron	260	15	ug/L	250	ND	97	75-125			
Lithium	262	10	ug/L	250	ND	105	75-125			
Molybdenum	240	10	ug/L	250	ND	97	75-125			
Matrix Spike Dup (B1B1006-MSD1)	Source: 1021082-01	1								
Boron	270	15	ug/L	250	24	99	75-125	6	20	
Lithium	268	10	ug/L	250	ND	107	75-125	6	20	
Molybdenum	250	10	ug/L	250	ND	99	75-125	6	20	
Matrix Spike Dup (B1B1006-MSD2)	Source: 1021082-03	3								
Boron	260	15	ug/L	250	ND	98	75-125	0.4	20	
Lithium	264	10	ug/L	250	ND	105	75-125	0.5	20	
Molybdenum	240	10	ug/L	250	ND	98	75-125	1	20	

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Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1B1040 - EPA 7470A					Account	74450	Ziditi		Ziilli	
Blank (B1B1040-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1B1040-BS1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120			
LCS Dup (B1B1040-BSD1)										
Mercury	4.9	0.20	ug/L	5.00		98	80-120	2	20	
Matrix Spike (B1B1040-MS2)	Source: 1021082-02	2								
Mercury	4.1	0.20	ug/L	5.00	ND	82	75-125			S 7
Matrix Spike Dup (B1B1040-MSD2)	Source: 1021082-02	2								
Mercury	4.1	0.20	ug/L	5.00	ND	82	75-125	0.6	20	S 7



Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1B1006	1021082-01	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-02	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-03	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-04	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-05	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-06	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-07	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-08	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-09	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-10	02/22/2021 10:53	MTH	
EPA 3005A	B1B1006	1021082-11	02/22/2021 10:53	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1B1040	1021082-01	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-02	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-03	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-04	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-05	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-06	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-08	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-09	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1021082-10	02/22/2021 16:38	MLR	



Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

S7 Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Chain of Custody



Custom	er Email	/Report Recipi	ient:	Date F	Results No	eeded b	y :		Pı	roject,	Task/	Unit #:		Rerun re	quest	for a	ny fila	gged	I QC
LEWI	LLIA	@santee	cooper.com		<i></i>			1215	56 学	1 38	M02.0	09.601	365	00	Yes	No			
												162	108	2		A	nalysi	s Grou	16
Labwor (Interna only)		Sample Locati Description	on/	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (G	Matrix(see below)	Preservative (see			ments it info		Œ.	1 7	Mo	-
AE76	37-7	WAP -1		2/15/24	1337	NDG /	1	P	G	GW	2	-01				×	X	×	X
AE 963	3 8o	WAP -2		2/15/21	1440	di i		!	1			-02	·				X	Х	X
AE 964	H/2	WBW-1		2/15/21	1221		1	1			1	-o !	5			Х	X	X	×
NE 964	ల3	WAP-18		2/16/21	1133		1	1				-04	1			X	×	X	У
4E46	404	WAP-19			19-25							ان -				Х	χ	Х	X
AE964	†05	WAP-20		1	1530	Ţ		1	Ţ		1	-01	,			X	X	X	X
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Reling	uished by:	Employee#	Date	Time	Receiv	ed by:	Er	aployee		Date		Time	Sample	Receiving (Int	ternal U				
Satare	THE PT	35594	2/18/21	1400	FED	EN								(°C): 4. (<u></u>	nitial:		_	-
Relinqu	ulshed by:	Employee#	Date	Time	Receive		En	rployee		Date		Time	Correc	tpH: Yes	No				
FER	OEX				M					2/19	1/21/1	020	Preserv	ative Lot#:					
Relinqu	lished by:	Employees	Data	Time	Receive	ed by:	En	nployee	_	Date		Time							
	D ME	TALS (all)						-					Date/Ti	me/Init for pr	reservat	tive:			
□ Ag.	□ Cu			ients	MIS	C.		100	psum	2		Coal	27	Flyash			Oil		
□ Al ː	☐ Fe	□ Se	TOC		☐ BTEX ☐ Napthale	ne	-0	Wallbo	ard um(<i>al</i>	,	D	Ultimate ☐ % Moist		Ammonia			AL ONE		
□ As	. □K	□ Sn		IPO4	D THM/HA			below	(1			☐ Ash	ure	LOI % Carbon		-50	ter.		
OB.	ULi	□ Sr	ENH	N.	□ VOC □ Oil & Gre	ease		II AJ!				☐ Sulfur		Mineral					
□ Ba	. □ Mg	□ Ti	i ci		E. Coli		100	Total	d metal:			☐ BTUs ☐ Volatile	Matte	Analysi	IS .	- 90			
□ Be	□ Mn	CTI	I NO		☐ Total Col ☐ pH	Horm	1		ible Me			O CHN	Matter	Sieve 96 Moistun	e		I Oil		
□ Ca	□ Mo	□V	Br NO3	1	☐ Dissolved		1	DNA	loisure			ther Tests:	1000			- 65			
□ Cd	□ Na	¹⊕ Zn	SO4		☐ Rad 226	re		□ Sulf	nes		The second	KRF Scan HGI		NPDES	8	TA	nels a	Set	
□ Co	□Ni	□ Hg			☐ Rad 228 ☐ PCB		1	Chk		- 1	DF	ineness Particulate Ma		Oil & Grease		B)			
□ C r	□РЬ	□ CrVI	-	4	-100		E	Sulfur	iele Siza		UF	arucuiate Ma	ittei	TSS		tan			

Chain of Custody



Santes Cooper One Riverwood Drive Moncks Carner, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

Custom	er Email	/Report Recipi	ent:	Date F	Results Ne	eded b	y:		Pi	roject/	Task/	Unit #:		Rerun request for any flagged 36500 Yes No		I QC			
LOWI	LLIA	@santeed	cooper.com		, ,			12.0	567	/ JM	02.0	9. GØI	1 36	500	Yes	No			
														1087			lnalysi	s Grou	up qu
Labwork (Internal only)	- ·- ·	Sample Location Description	on/	Collection Date	Collection Time	Sample Collector	Total 8 of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see	T T		nments nit c info		00	Li	Mo	11-13
AE963	388	WAP-10		2/17/21	1357	DEW	1	P	6	GW	2	-68)				×	Х	Х
AE963	389	WAP-10 DUI	P	1	1402	1	1					-06	}				Х	X	x
AE964	-06	WAP - 21		2/17/21	1235				П			-10				Х	x	x	х
AE964	-c8	WA-P - 23		1	1126		1		I		_	- 11					x		
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Relinqu	dshed by:	Employee#	Date	Time	Receiv	ed by:	E	noloves	# 1	Date		Time	Somp	le Receivin	g (Internal C	Jse On	ly)		
891200	un	35594	2/18/21	1400									TEM	P (°C):	9.6	Initial	:		-
	ilshed by:	Employees	Date	Time	Receiv	ed by:	Er	nployee		Date		Time		ect pH:					
Relinqu	ished by:	Employee#	Date	Time	Receive	ed by:	Er	nployee	8	Date		Time		rvative L					
	n ME	TEAT C (all)											Date/	Time/Init	for preserva	ative:			
[] Ag	O Cu	TALS (all)	100	trients	MIS	SC.		A SECTION AND ADDRESS OF	psun	<u>n</u>		Coal		Fly	ash		Oil		
□ A!	□ Fe		Di		☐ BTEX ☐ Napthale	ne	0	Walibo	sum(a	11	0	Ultimate		Amn	onia		es. Oil Officer		
□ As	□K	□ Sn	TETT	TPO4	□ THM/HA			belo	W)			☐ % Moist ☐ Ash	ure	LOI L% Ca	rhop	- 6	No.		
□В	□ Li	□ Sr	ENI	13-N	□ VOC □ Oil & Gr	ease		L AI				☐ Sulfur		Mine					
□ Ba	□ Mg		Eci	-	DE Coli			E To	tal meta	ls		□ BTUs		A	nalysis	19	1		
□ Be	□ Mr		LNO		□ Total Col	liform			uble M			□ Volatile □ CHN	Matter	□ Sieve			4 08		9
□ Ca	□ Mo		Br		☐ Dissolve				mity (Ca.) Moistur			her Tests:		C1 96 3VI	Asture				
D Cd	□ Na		FN		☐ Dissolved ☐ Rad 226	i Fe	NE	□ Sul	fites		100	KRF Scan		NP	DES				
			E SO		☐ Rad 228			□ pH □ Ch	lorides			HGI Pineness		. Oil &					
□ Co	□ Ni □ Pb		100		□PCB				ticle Siz	te	OF	Particulate Ma	itter	□ As □ TSS		- 60	real		
Ç1	1010	UVI	-					Sulfur					-			****			



Revised February 2018

Sample Receipt Verification

Client: Santee Cooper		Date ceived:	2/:	24/21		Work Order:	1021247	
Carrier Name: Client Track	FedEx UPS king Number: 8162406720	US 1	Mail		Cou	rier Field Servi	ces Other:	
Receipt Criteria			Y e s	N o	N A	Comments		
Shipping container / cooler in	tact?		x			Damaged Leakin	g Other:	
Custody seals intact?					х			
COC included with samples?			х					
COC signed when relinquished	d and received?		х					
Sample bottles intact?			х			Damaged Leakin	g Other:	
Sample ID on COC agree wit	n label on bottle(s)?		х					
Date / time on COC agree wit	h label on bottle(s)?		х					
Number of bottles on COC ag	rees with number of bottles rece	eived?	х					
Samples received within hold	ing time?		Х					
Sample volume sufficient for	analysis?		х					
VOA vials free of headspace	(<6mm bubble)?				х			
Namples cooled?	receipt recorded on COC casured with IR thermometer - SN: 970:	50067			х	Ice Cold Pa	acks Dry Ice	None
Samples requiring pH preserv Note: Samples for metals analysis		ab.	х				·	
Samples dechlorinated for parties time of sample collection?	ameters requiring chlorine remo	oval at			х			
	If in-house pres	servation	used	– re	cord	Lot#		
HCL		H ₃ P						
H ₂ SO ₄ HNO ₃		NaC Oth		-				
Comments:				1				
Were non-conformance iss	ues noted at sample receipt?	Vec	s or		Jo.	`		
Non-Conformance issue other		103	, 01		<u> </u>	,		
Daviced Cabruage 2019						umnleted by:	KRU	

Completed by:_ Page 12 of 12





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project:

Work Order: 1030283

Received: 03/03/2021 13:20

Ground Water

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on March 03, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager

Page 1 of 11

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South Carolina Greenville Laboratory Identification 23105 South Carolina Columbia Laboratory Identification 40572 North Carolina Laboratory Certification Number 27 North Carolina Drinking Water Lab Number 45710 NELAP Utah Certificate Number SC000042014-1 Georgia Drinking Water Lab ID 880

Client Santee Cooper

Certificate of Analysis

Linda Williams
1 Riverwood Dr.

Moncks Corner, SC 29461

Project: Ground Water
Work Order: 1030283

Received: 03/03/2021 13:20

Sample Number	Sample Description	Matrix	Sampled	Type
1030283-01	AE96387 WAP-9	Ground Water	02/23/21 12:49	Grab
1030283-02	AE96382 WAP-4	Ground Water	02/23/21 14:28	Grab
1030283-03	AE96385 WAP-7	Ground Water	02/24/21 11:02	Grab
1030283-04	AE96381 WAP-3	Ground Water	02/24/21 13:18	Grab
1030283-05	AE96398 WAP-14C	Ground Water	02/25/21 12:20	Grab
1030283-06	AE96397 WAP-14B	Ground Water	02/25/21 13:56	Grab
1030283-07	AE96396 WAP-14C	Ground Water	02/25/21 14:46	Grab
1030283-08	AE96394 WAP-14	Ground Water	02/25/21 11:10	Grab
1030283-09	AE96395 WAP-14DUP	Ground Water	02/25/21 11:15	Grab
1030283-10	AE96399 WAP-15	Ground Water	02/25/21 15:40	Grab



Sample Data

Sample Number

1030283-01

Sample Description

AE96387 WAP-9 collected on 02/23/21 12:49

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:10	EPA 7470A		MLR	B1C0396
Lithium	69	10	ug/L	1.00	03/04/21 17:43	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:43	EPA 6010D		MLR	B1C0267

Sample Number

1030283-02

Sample Description

AE96382 WAP-4 collected on 02/23/21 14:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:12	EPA 7470A		MLR	B1C0396
Lithium	ND	10	ug/L	1.00	03/04/21 17:47	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:47	EPA 6010D		MLR	B1C0267

Sample Number

1030283-03

Sample Description

AE96385 WAP-7 collected on 02/24/21 11:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:15	EPA 7470A		MLR	B1C0396
Lithium	ND	10	ug/L	1.00	03/04/21 17:51	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:51	EPA 6010D		MLR	B1C0267

Sample Number

1030283-04

Sample Description AE96381 WAP-3 collected on 02/24/21 13:18

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:26	EPA 7470A		MLR	B1C0396
Lithium	ND	10	ug/L	1.00	03/04/21 17:55	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:55	EPA 6010D		MLR	B1C0267



Santee Cooper Project: 1 Riverwood Dr. Work Order:

1030283 Moncks Corner, SC 29461 03/11/21 09:01 Reported:

Ground Water

1030283-05 Sample Number

Sample Description	AE96398 WAP-14C collected on	02/25/21 12:2	20						
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/04/21 17:20	EPA 6010D		MLR	B1C0267
Sample Number Sample Description	1030283-06 AE96397 WAP-14B collected on	02/25/21 13:5	66						
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	12	10	ug/L	1.00	03/04/21 17:59	EPA 6010D		MLR	B1C0267
Sample Number Sample Description	1030283-07 AE96396 WAP-14C collected on	02/25/21 14:4	16						
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	36	10	ug/L	1.00	03/04/21 18:03	EPA 6010D		MLR	B1C0267
Sample Number Sample Description	1030283-08 AE96394 WAP-14 collected on 0	02/25/21 11:10							
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:29	EPA 7470A		MLR	B1C0396
Boron	6000	150	ug/L	10.0	03/04/21 18:22	EPA 6010D		MLR	B1C0267
Lithium	ND	10	ug/L	1.00	03/04/21 18:37	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 18:37	EPA 6010D		MLR	B1C0267
Sample Number Sample Description	1030283-09 AE96395 WAP-14DUP collected	l on 02/25/21 1	1:15						
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:32	EPA 7470A		MLR	B1C0396

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MLR

MLR

MLR

EPA 6010D

EPA 6010D

EPA 6010D

ug/L

ug/L

ug/L

10.0

1.00

1.00

03/04/21 18:26

03/04/21 18:41

03/04/21 18:41

6200

ND

ND

150

10

10

Boron

Lithium

Molybdenum

B1C0267

B1C0267 B1C0267



Sample Number 1030283-10

Sample Description AE96399 WAP-15 collected on 02/25/21 15:40

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:35	EPA 7470A		MLR	B1C0396
Boron	3400	15	ug/L	1.00	03/04/21 18:45	EPA 6010D		MLR	B1C0267
Lithium	23	10	ug/L	1.00	03/04/21 18:45	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 18:45	EPA 6010D		MLR	B1C0267



Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0267 - EPA 200.7										
Blank (B1C0267-BLK1)										
Boron	ND	15	ug/L							
.ithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
.CS (B1C0267-BS1)										
Boron	240	15	ug/L	250		96	80-120			
Lithium	266	10	ug/L	250		106	80-120			
Molybdenum	220	10	ug/L	250		89	80-120			
LCS Dup (B1C0267-BSD1)										
Вогоп	250	15	ug/L	250		100	80-120	5	20	
ithium	264	10	ug/L	250		106	80-120	0.7	20	
Molybdenum	230	10	ug/L	250		94	80-120	5	20	
Matrix Spike (B1C0267-MS1)	Source: 1030283-05	5								
Boron	680	15	ug/L	250	400	109	75-125			
ithium	286	10	ug/L	250	ND	112	75-125			
Molybdenum	230	10	ug/L	250	ND	94	75-125			
Matrix Spike Dup (B1C0267-MSD1)	Source: 1030283-05	5								
Boron	680	15	ug/L	250	400	110	75-125	0.6	20	
ithium	283	10	ug/L	250	ND	110	75-125	1	20	
Molybdenum	240	10	ug/L	250	ND	98	75-125	4	20	
Post Spike (B1C0267-PS1)	Source: 1030283-05	5								
Boron	0.91		mg/L	0.500	ND	101	75-125			
.ithium	0.531		mg/L	0.500	ND	105	75-125			
Molybdenum	0.47		mg/L	0.500	ND	94	75-125			
Batch B1C0396 - EPA 7470A										
Blank (B1C0396-BLK1)										
Mercury	ND	0.20								



Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0396 - EPA 7470A										
LCS (B1C0396-BS1)										
Mercury	5.0	0.20	ug/L	5.00		100	80-120			
LCS Dup (B1C0396-BSD1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120	1	20	
Matrix Spike (B1C0396-MS1)	Source: 1030283-03	3								
Mercury	4.8	0.20	ug/L	5.00	ND	97	75-125			
Matrix Spike Dup (B1C0396-MSD1)	Source: 1030283-03	3								
Mercury	5.0	0.20	ug/L	5.00	ND	100	75-125	3	20	
Post Spike (B1C0396-PS1)	Source: 1030283-03	3								
Mercury	4.0		ug/L	4.00	ND	99	80-120			



Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 200.7 Metal Digestion					
EPA 200.7	B1C0267	1030283-01	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-02	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-03	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-04	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-05	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-06	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-07	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-08	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-09	03/04/2021 15:59	MTH	
EPA 200.7	B1C0267	1030283-10	03/04/2021 15:59	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1C0396	1030283-01	03/05/2021 13:44	ELN	
EPA 7470A	B1C0396	1030283-02	03/05/2021 13:44	ELN	
EPA 7470A	B1C0396	1030283-03	03/05/2021 13:44	ELN	
EPA 7470A	B1C0396	1030283-04	03/05/2021 13:44	ELN	
EPA 7470A	B1C0396	1030283-08	03/05/2021 13:44	ELN	
EPA 7470A	B1C0396	1030283-09	03/05/2021 13:44	ELN	
EPA 7470A	B1C0396	1030283-10	03/05/2021 13:44	ELN	



 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1030283

 Moncks Corner, SC 29461
 Reported:
 03/11/21 09:01

Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

Chain of Custody



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

	ici Lillan	y keport kecip	ment.	Date	Results N	eeded b	y:		P	roject,	/Task/	Unit #:		Rerun red	Rerun request for any flag			ged Q
LOW	ILLIA	@santee	ecooper.com		<i></i>	/		1215	567	JJA	402.	OT. GØ	365	500	Yes I	No		
· · · · · · · · · · · · · · · · · · ·												103	,028	3		Ana	alysis (Group
Labwari (Interna only)		Sample Locat Description	ion/	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass- G/Plastlc-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see	_		ments nit info		m	ָּוֹן.	Mo
AE 96	387	WAP-9		2/23/24	1249	MOG	1.	P	6	GW	2	-0	,				X >	X X
AET6	382	WAP-4		L	1428	1	1	1	1	1		-02						x ×
AE 96	382	WAP-7		2/24/21	1102	DEW	1		delication con-	-	1	-03	3			X	(×	< X
4E963	881	WAP-3		1	1318			1		-		-ري	l				-	× x
AE 963	398	WAP-14C		2/25/21	1220	DEW		111		, consens.	i	. 05			\top	×		1
AE963	397	WAP-148			1356	1		İ				-06)			×	+	
AE 963	396	WAP-14C			1446		1			1		-07				Х		-
4E 9635	74	WAP-14		2/25/21	1110	DEN		446				-08			X	×	X	X
F963	95	WAP-14 DO	UP		1115		1	and a contract of		Towns .		-09			×	×	X	×
E9639	79	WAP-15		1	1540		-	1			1	-10)		×	; ×	XX	+
Relinquis	shed by:	Employee#	Date	Time	Receive	d by:	Em	ployee #		Date		Time	Sample	Receiving (Inter	nal Use	Only)		
* Amount		35594	3/2/21	1500	PED	RX							TEMP	(°C): 10.C	1 Init	ial:	ne	<u></u>
Reiinquis	shed by:	Employee#	Date	Time	Receive		Em	ployee #	1	Date	\top	Time	Correct	pH: Yes	No			
FEDI				X	10	_			3/	3/21	,	320	Preserv	ative Lot#:				
Relinquis	shed by:	Employee#	Date	Time	Receive	d by:	Em	ployee #		Date		Time						
	O MET	ALS (all)								_			Date/Tir	me/Init for pres	ervative	is .		
□ Ag	□ Cu		Nutri	_	MIS	<u>c.</u>		Gyp	sum			Coal	620	Flyash		0	il	
□ Al	□ Fe	□ Se	100		BTEX Napthalene		NEW Y	Wallboar Gypsu			1000	ltimate		□ Ammonia	1	raus O	H Qu	
∃As	□K	□ Sn	TFT	PLM D	THM/HA			below				☐ % Moist ☐ Ash ☐ A	ure	% Carbon		MSMid Follow		
B	□ Li	□ Sr	NH.		VOC Oil & Grea	ise		AIM				Sulfur		- Mineral		Aculty		
∃ Ba	□Mg	□ Ti	-01		E. Coli		TOC					BTUs		Analysis		olitare DT		all .
∃ Bc	□ Mn	□ T 1	SUE		Total Colif	orm		Solub	(CaSO			Volatile CHN	Matter	Sieve 36 Moisture	_	District O		(XXI)
Ca	□Мо	υV	Bir Not2	7	Dissolved I			- % Mo	isture	31	Oth	er Tests:	3 -23/1	- Judistuic		Flashy		
Cđ	□ Na	□ Zn	504		Rad 226			Solfin	5	-	DXE	RF Scan		NPDES		漂		
Co	□Ni	□ Hg			Rad 228	1		Chlori	des			eness		Oil & Grease		Uar		
Co Cr			2	1 11	PCB			☐ Partiel	40.0	- 1	- mar	ticulate Ma		. As		68		



Revised February 2018

Sample Receipt Verification

Santee Cooper	Date ceived:	03	/03/2	:1	Work Order: 1030283
Carrier Name: Client FedEx UPS	US N	/Iail		Cou	rier Field Services Other:
Tracking Number: 81624	0672657				_
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Х			Damaged Leaking Other:
Custody seals intact?				Х	
COC included with samples?		Х			
COC signed when relinquished and received?		Х			
Sample bottles intact?		Х			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Х			
Date / time on COC agree with label on bottle(s)?		Х			
Number of bottles on COC agrees with number of bottles rece	eived?	Х			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Х			
VOA vials free of headspace (<6mm bubble)?				Х	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer - SN: 9705	0067			Х	Ice Cold Packs Dry Ice None
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in the la Note: Samples for O&G and VOA analysis – preservation checked at bene	ıb.	х			
Samples dechlorinated for parameters requiring chlorine remo the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA, a analysis.	oval at			х	
If in-house pres	servation u	ısed	– re	cord	Lot#
HCL	H ₃ P(
H ₂ SO ₄ HNO ₃	NaO Oth		+		
Comments:					
Were non-conformance issues noted at sample receipt?	Yes	OF	Q	(OV	
Non-Conformance issue other than noted above:	103	- 01			
Davigad Columna, 2010				Ca	omplated by: CTC

Completed by:_ Page 11 of 11





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project: Work Order: Ground Water

1030536

Received:

03/09/2021 12:55

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on March 09, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

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We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager

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Page 1 of 14





South Carolina Greenville Laboratory Identification 23105 South Carolina Columbia Laboratory Identification 40572 North Carolina Laboratory Certification Number 27 North Carolina Drinking Water Lab Number 45710 NELAP Utah Certificate Number SC000042014-1 Georgia Drinking Water Lab ID 880

Client Santee Cooper

Certificate of Analysis

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project: Ground Water Work Order: 1030536

Received: 03/09/2021 12:55

Sample Number	Sample Description	Matrix	Sampled	Type
1030536-01	AE96413 WBW-A1-1	Ground Water	03/01/21 10:05	Grab
1030536-02	AE96417 WLF-A1-4	Ground Water	03/01/21 11:10	Grab
1030536-03	AE96418 WLF-A1-4 dup	Ground Water	03/01/21 11:15	Grab
1030536-04	AE96416 WLF-A1-3	Ground Water	03/01/21 12:31	Grab
1030536-05	AE96415 WLF-A1-2	Ground Water	03/01/21 13:48	Grab
1030536-06	AE96401 WAP-17	Ground Water	03/02/21 10:48	Grab
1030536-07	AE96402 WAP-17 DUP	Ground Water	03/02/21 10:53	Grab
1030536-08	AE96414 WLF-A1-1	Ground Water	03/02/21 12:53	Grab
1030536-09	AE96419 WLF-A1-5	Ground Water	03/02/21 14:01	Grab
1030536-10	AE96409 WAP-24	Ground Water	03/02/21 11:28	Grab
1030536-11	AE96411 WAP-26	Ground Water	03/02/21 15:13	Grab
1030536-12	AE96410 WAP-25	Ground Water	03/04/21 10:36	Grab
1030536-13	AE96393 WAP-13	Ground Water	03/04/21 11:55	Grab
1030536-14	AE96391 WAP-12	Ground Water	03/04/21 13:09	Grab
1030536-15	AE96392 WAP-12 DUP	Ground Water	03/04/21 13:14	Grab
1030536-16	AE96400 WAP-16	Ground Water	03/04/21 14:27	Grab



Sample Data

Sample Number

1030536-01

Sample Description

AE96413 WBW-A1-1 collected on 03/01/21 10:05

Parameter	Resu	Reporting It Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	48	15	ug/L	1.00	03/15/21 14:30	EPA 6010D		MLR	B1C0515
Sample Number Sample Description	1030536-02 AE96417 WLF-A1-4 collected	on 03/01/21 11	:10						
Parameter	Resu	Reporting It Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	140	15	ug/L	1.00	03/15/21 15:16	EPA 6010D		MLR	B1C0515
Sample Number Sample Description	1030536-03 AE96418 WLF-A1-4 dup colle	ected on 03/01/2	1 11:15						
Parameter	Resu	Reporting It Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	150	15	ug/L	1.00	03/15/21 15:20	EPA 6010D		MLR	B1C0515
Sample Number Sample Description	1030536-04 AE96416 WLF-A1-3 collected	on 03/01/21 12	::31						
Parameter	Resu	Reporting It Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	59	15	ug/L	1.00	03/15/21 15:24	EPA 6010D		MLR	B1C0515
Sample Number Sample Description	1030536-05 AE96415 WLF-A1-2 collected	on 03/01/21 13	:48						
Parameter	Resu	Reporting It Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	120	15	ug/L	1.00	03/15/21 15:28	EPA 6010D		MLR	B1C0515



Project:

Ground Water

Work Order: Reported:

1030536 03/17/21 10:37

Sample Number

1030536-06

Sample Description

AE96401 WAP-17 collected on 03/02/21 10:48

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:27	EPA 7470A		MLR	B1C0646
Boron	2800	15	ug/L	1.00	03/15/21 15:49	EPA 6010D		MLR	B1C0515
Lithium	160	10	ug/L	1.00	03/11/21 19:11	EPA 6010D		MLR	B1C0515
Molybdenum	110	10	ug/L	1.00	03/11/21 19:11	EPA 6010D		MLR	B1C0515

Sample Number

1030536-07

Sample Description

AE96402 WAP-17 DUP collected on 03/02/21 10:53

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:29	EPA 7470A		MLR	B1C0646
Boron	2900	15	ug/L	1.00	03/15/21 15:53	EPA 6010D		MLR	B1C0515
Lithium	150	10	ug/L	1.00	03/11/21 19:15	EPA 6010D		MLR	B1C0515
Molybdenum	110	10	ug/L	1.00	03/11/21 19:15	EPA 6010D		MLR	B1C0515

Sample Number

1030536-08

AE96414 WLF-A1-1 collected on 03/02/21 12:53 Sample Description

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	1100	15	ug/L	1.00	03/15/21 15:57	EPA 6010D		MLR	B1C0515

Sample Number

1030536-09

Sample Description AE96419 WLF-A1-5 collected on 03/02/21 14:01

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	1300	15	ug/L	1.00	03/15/21 16:01	EPA 6010D		MLR	B1C0515

rogersandcallcott.com PO Box 5655 | Greenville, SC 29606 | 426 Fairforest Way | Greenville, SC 29607 | main 864.232.1556 | fax 864.232.6140



Project:

Ground Water

Work Order: Reported: 1030536 03/17/21 10:37

Sample Number

1030536-10

Sample Description

AE96409 WAP-24 collected on 03/02/21 11:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/11/21 19:57	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:57	EPA 6010D		MLR	B1C0515

Sample Number

1030536-11

Sample Description

AE96411 WAP-26 collected on 03/02/21 15:13

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/11/21 20:01	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 20:01	EPA 6010D		MLR	B1C0515

Sample Number

1030536-12

Sample Description

AE96410 WAP-25 collected on 03/04/21 10:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/11/21 20:05	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 20:05	EPA 6010D		MLR	B1C0515

Sample Number

1030536-13

Sample Description

AE96393 WAP-13 collected on 03/04/21 11:55

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:32	EPA 7470A	S 7	MLR	B1C0646
Boron	4400	15	ug/L	1.00	03/15/21 16:05	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 19:27	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:27	EPA 6010D		MLR	B1C0515



Project:

Ground Water

Work Order: Reported: 1030536 03/17/21 10:37

Sample Number

1030536-14

Sample Description

AE96391 WAP-12 collected on 03/04/21 13:09

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:35	EPA 7470A	S 7	MLR	B1C0646
Boron	4900	15	ug/L	1.00	03/15/21 16:09	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 19:30	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:30	EPA 6010D		MLR	B1C0515

Sample Number

1030536-15

Sample Description AE96392 WAP-12 DUP collected on 03/04/21 13:14

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:38	EPA 7470A	S 7	MLR	B1C0646
Boron	4800	15	ug/L	1.00	03/15/21 16:16	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 19:34	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:34	EPA 6010D		MLR	B1C0515

Sample Number

1030536-16

Sample Description AE96400 WAP-16 collected on 03/04/21 14:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:49	EPA 7470A		MLR	B1C0646
Boron	1600	15	ug/L	1.00	03/15/21 14:53	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 16:52	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 16:52	EPA 6010D		MLR	B1C0515



Total Metals **Quality Control Summary**

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1C0515 - EPA 200.7										
Blank (B1C0515-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1C0515-BS1)										
Boron	280	15	ug/L	250		110	80-120			
Lithium	264	10	ug/L	250		106	80-120			
Molybdenum	240	10	ug/L	250		98	80-120			
LCS Dup (B1C0515-BSD1)										
Boron	250	15	ug/L	250		100	80-120	10	20	
Lithium	250	10	ug/L	250		100	80-120	6	20	
Molybdenum	250	10	ug/L	250		100	80-120	3	20	
Matrix Spike (B1C0515-MS1)	Source: 1030536-01									
Boron	290	15	ug/L	250	48	98	75-125			
Lithium	272	10	ug/L	250	ND	109	75-125			
Molybdenum	250	10	ug/L	250	ND	99	75-125			
Matrix Spike (B1C0515-MS2)	Source: 1030536-16	;								
Boron	1800	15	ug/L	250	1600	103	75-125			
Lithium	277	10	ug/L	250	ND	109	75-125			
Molybdenum	240	10	ug/L	250	ND	95	75-125			
Matrix Spike Dup (B1C0515-MSD1)	Source: 1030536-01									
Boron	290	15	ug/L	250	48	96	75-125	1	20	
Lithium	263	10	ug/L	250	ND	105	75-125	3	20	
Molybdenum	250	10	ug/L	250	ND	100	75-125	0.3	20	
Matrix Spike Dup (B1C0515-MSD2)	Source: 1030536-16	i								
Boron	1800	15	ug/L	250	1600	113	75-125	l	20	
Lithium	284	10	ug/L	250	ND	112	75-125	2	20	
Molybdenum	240	10	ug/L	250	ND	97	75-125	2	20	



Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0515 - EPA 200.7										
Post Spike (B1C0515-PS1)	Source: 1030536-01									
Boron	0.53		mg/L	0.500	ND	96	75-125			
Lithium	0.515		mg/L	0.500	ND	103	75-125			
Molybdenum	0.49		mg/L	0.500	ND	98	75-125			
Post Spike (B1C0515-PS2)	Source: 1030536-16									
Boron	2.1		mg/L	0.500	ND	103	75-125			
Lithium	0.542		mg/L	0.500	ND	108	75-125			
Molybdenum	0.48		mg/L	0.500	ND	96	75-125			
Batch B1C0646 - EPA 7470A										
Blank (B1C0646-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1C0646-BS1)										
Mercury	4.9	0.20	ug/L	5.00		98	80-120			
LCS Dup (B1C0646-BSD1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120	3	20	
Matrix Spike (B1C0646-MS1)	Source: 1030536-15									
Mercury	4.1	0.20	ug/L	5.00	ND	81	75-125			S 7
Matrix Spike Dup (B1C0646-MSD1)	Source: 1030536-15									
Mercury	4.1	0.20	ug/L	5.00	ND	81	75-125	0	20	S 7
Post Spike (B1C0646-PS1)	Source: 1030536-15									
Mercury	3.3		ug/L	4.00	ND	82	80-120			S 7
Post Spike (B1C0646-PS3)	Source: 1030536-06									
Mercury	3.9		ug/L	4.00	ND	98	80-120			
Post Spike (B1C0646-PS4)	Source: 1030536-07									
Mercury	3.9		ug/L	4.00	ND	97	80-120			



Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0646 - EPA 7470A										
Post Spike (B1C0646-PS5)	Source: 1030536-13									
Mercury	3.3		ug/L	4.00	ND	82	80-120			S 7
Post Spike (B1C0646-PS6)	Source: 1030536-14									
Mercury	3.2		ug/L	4.00	ND	81	80-120			S7
Post Spike (B1C0646-PS7)	Source: 1030536-16									
Mercury	3.6		ug/L	4.00	ND	89	80-120			



 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1030536

 Moncks Corner, SC 29461
 Reported:
 03/17/21 10:37

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 200.7 Metal Digestion					
EPA 200.7	B1C0515	1030536-01	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-02	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-03	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-04	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-05	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-06	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-07	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-08	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-09	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-10	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-11	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-12	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-13	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-14	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-15	03/10/2021 15:25	MTH	
EPA 200.7	B1C0515	1030536-16	03/10/2021 15:25	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1C0646	1030536-06	03/10/2021 13:16	ELN	
EPA 7470A	B1C0646	1030536-07	03/10/2021 13:16	ELN	
EPA 7470A	B1C0646	1030536-13	03/10/2021 13:16	ELN	
EPA 7470A	B1C0646	1030536-14	03/10/2021 13:16	ELN	
EPA 7470A	B1C0646	1030536-15	03/10/2021 13:16	ELN	
EPA 7470A	B1C0646	1030536-16	03/10/2021 13:16	ELN	



Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

S7 Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Chain of Custody



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

Custome	er Email/Report Recipient: Date Results Needed by: Project/Task/Unit #: Rerun request for any flagged QC				d QC														
LCW	ILLIA	@santee	cooper.con	n	J	/		121	567] 36		Yes 1	Vo.			
										1	0	305	300			A	nalysi	is Grou	up
Labwork (Internal only)		Sample Locati Description	ion/	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	elow}	Preservative (see		Co sethod # eporting I isc. samp ny other n	mments imit le info		Φ	Ľ	Mo	H
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Relinquis	hed by:	Employee#	Date	Time	Receive	ed by:	Er	nployee f		Date		Time	Samp	le Receiving (Inter	rnal Use	Only)		
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Relinquis	•	Employee#	Date	Time	Receive	ed by:	En	nployee #		Date	\dashv	Time	Corre	ect pH: Yes	No				
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Relinquis	hed by:	Employee#	Date	Time	Receive	ed by:	En	nployee #		Date		Time							
		CAT C (all)											Date/	Time/Init for pres	servative): 			
□Ag	Cu	TALS (ali)	Nut	rients	MIS	C.		Gyr	sum	1		Coal		Flyash			Oil		
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□ As	ΘK	□ Sn		TEL44	□ THM/HA			below	um(all			☐ % Mois	ture	LOI		Tak Kink			
□ B	O Li	☐ Sr	NH		□ VOC □ Oil & Gre	nce	1	O AIN				□ Sulfur		% Carbon Mineral		Aus			
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☐ Be	☐ Mn	IT C	_NO.		□ Total Coli	form		Solul	ble Met	als		☐ Volatile☐ CHN	Matter	Sieve % Moisture					
□ Ca	□Мо	υV	Br		□ Dissolved				y (CaSt oisture		Ot	her Tests:		in arcusture	_		OH HOUSE		
□ Cd	□ Na	□ Zn	NO:		☐ Dissolved ☐ Rad 226	re		□ Salfr	tes		QX OH	RF Scan	750	NPDES		Man			
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□ Cr	□ Pb	□ CrVI		- 1	□ PCB		n	☐ Partic Sulfur	ele Size		DP	articulate Ma	itter	As TSS		rs of k			

Chain of Custody



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

Custom	er Email	/Report Recip	ient:	Date	Results N	eeded b	y:		P	roject/	Task/	'Unit #:		Rerun reque	est for a	ny fl	agge	d Q(
LCW	ILLIA	@santee	cooper.com		//			121	567	J_JM	02.	09.6	Ø1 J 36	Soo Ve	S No			
												1	172A	536		Analy:	sis Gra	oup
Labwork (Interna only)		Sample Locati Description	on/	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	· · ·	Method # Reporting li Misc. samp Any other n	mments mit le info	m	L.	Mo	至
AE961	+09	WAP-24		3/2/21	1128	DEW 15 DJ	1	P	G	G W	2	5	0			Х	×	
AE 964	+ 1 1	WAP - 26		L	1213	1	1	1	<u>}</u>	1	2:	-1)			X	X	
AE961	440	WAP- 25		3/4/21	1036	DEW	1	1	1	1	2	- 1	2			X	Х	
AE96=	393	WAP-13			1155	-			1			-13			X	Х	X	X
AE963	391	WAP-12			1309		The same of the sa					~/c	1		×	×	Х	X
AB96	392	WAP-12 (DUP		1314						the same of the sa	- l	5		×	×	×	X
AE964	t00	WAP-16			1427	- American de la composition della composition d	}	_	production.		1	- 1	6		×	×	X	×
Relingu	ished by:	Employee#	Date	Time	Receive	ed by:	En	ployee	#	Date		Time	Samp	le Receiving (Interna	l Use Or	ly)		
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	ished by:	Employee#	Date	Time	Receive		En	ployee	#	Date		Time	Corr	ect pH: Yes N	o			
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□B	□ Li	□ Sr	NH3		□ VOC □ Oil & Gre	925		All				Sulfu	ır	Mineral		(CIV)		
□ Ba	□Mg	□ Ti	-10		E. Coli	430		Total	l metals		1	□ BTU	S	Analysis	19	00 m 3		
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□ Co	□ Ni	☐ Hg			□ PCB		- 1-	C Chlo	indes iele Size		**	ineness articulate	Matter	_As				
□ Cr	□ Pb	☐ CrVI												TSS				



Revised February 2018

Sample Receipt Verification

Client: Santee Cooper	Date Received:	3/	9/21		Work Order: 1030536
Carrier Name: Client FedE		Mail		Cou	rier Field Services Other:
Tracking Number	er:804137735722				_
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Х			Damaged Leaking Other:
Custody seals intact?		•		х	
COC included with samples?		Х			
COC signed when relinquished and receiv	ved?	Х			
Sample bottles intact?		Х			Damaged Leaking Other:
Sample ID on COC agree with label on bo	ottle(s)?	Х			
Date / time on COC agree with label on b	ottle(s)?	Х			
Number of bottles on COC agrees with nu	ımber of bottles received?	Х			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Х			
VOA vials free of headspace (<6mm bubl	ole)?			х	
Samples cooled? Temp at receipt recorde Temp measured with IR	d on COC thermometer - SN: 97050067			x	Ice Cold Packs Dry Ice None
Samples requiring pH preservation at proposes: Note: Samples for metals analysis may be preservation. Note: Samples for O&G and VOA analysis – proposes.	ved upon receipt in the lab.	Х			
Samples dechlorinated for parameters req the time of sample collection? Note: Chlorine checked at bench for samples re analysis.	uiring chlorine removal at			х	
	If in-house preservation	used	– re	cord	Lot#
HCL	H ₃ P	O ₄			
H ₂ SO ₄	NaC				
HNO ₃	Oth	er			
Comments:					
Were non-conformance issues noted a	t sample receipt? Ves	OI	<u></u>	No)	<u> </u>
Non-Conformance issue other than noted		- 01		<u>```</u>	·
Daviged February 2010				Ca	ompleted by: KRU

Completed by:_ Page 14 of 14





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project:

Received:

Ground Water

Work Order: 1040743

04/14/2021 09:20

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on April 14, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager

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South Carolina Greenville Laboratory Identification 23105 South Carolina Columbia Laboratory Identification 40572 North Carolina Laboratory Certification Number 27 North Carolina Drinking Water Lab Number 45710 NELAP Utah Certificate Number SC000042014-1 Georgia Drinking Water Lab ID 880

> Ground Water Project: Work Order: 1040743

Received: 04/14/2021 09:20

Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Sample Number	Sample Description	Matrix	Sampled	Type
1040743-01	AF00633 CGYP-4	Ground Water	04/07/21 11:06	Grab
1040743-02	AF00629 CGYP-1	Ground Water	04/07/21 12:16	Grab
1040743-03	AF00630 CGYP-2	Ground Water	04/07/21 13:16	Grab
1040743-04	AF00631 CGYP-2 DUP	Ground Water	04/07/21 13:21	Grab
1040743-05	AF00632 CGYP-3	Ground Water	04/07/21 14:20	Grab
1040743-06	AF00634 CGYP-5	Ground Water	04/07/21 15:09	Grab
1040743-07	AF00635 CGYP-6	Ground Water	04/07/21 16:02	Grab
1040743-08	AF00697 CCMAP-4	Ground Water	04/08/21 10:32	Grab
1040743-09	AF00698 CCMAP-4 DUP	Ground Water	04/08/21 10:37	Grab
1040743-10	AF00693 WLF-A2-6	Ground Water	04/08/21 15:27	Grab
1040743-11	AF00694 WLF-A2-6 DUP	Ground Water	04/08/21 15:32	Grab
1040743-12	AF00695 WAP-17	Ground Water	04/08/21 13:31	Grab
1040743-13	AF00696 WAP-17 DUP	Ground Water	04/08/21 13:36	Grab



Santee Cooper Project: Ground Water 1 Riverwood Dr. Work Order: 1040743

Moncks Corner, SC 29461 Reported: 04/22/21 14:29

Sample Data

Sample Number

1040743-01

Sample Description

AF00633 CGYP-4 collected on 04/07/21 11:06

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:12	EPA 7470A		MLR	B1D0679
Boron	7600	75	ug/L	5.00	04/16/21 14:48	EPA 6010D		MLR	B1D0837
Lithium	58	10	ug/L	1.00	04/16/21 15:58	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 15:58	EPA 6010D		MLR	B1D0590

Sample Number

1040743-02

Sample Description AF0062

AF00629 CGYP-1 collected on 04/07/21 12:16

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:24	EPA 7470A		MLR	B1D0679
Boron	11000	75	ug/L	5.00	04/16/21 14:52	EPA 6010D		MLR	B1D0837
Lithium	20	20	ug/L	2.00	04/21/21 16:28	EPA 6010D	X	MLR	B1D0590
Molybdenum	ND	20	ug/L	2.00	04/21/21 16:28	EPA 6010D	X	MLR	B1D0590

Sample Number

1040743-03

Sample Description

AF00630 CGYP-2 collected on 04/07/21 13:16

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:35	EPA 7470A		MLR	B1D0679
Boron	850	75	ug/L	5.00	04/16/21 12:53	EPA 6010D		MLR	B1D0837
Lithium	14	10	ug/L	1.00	04/16/21 13:12	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 13:12	EPA 6010D		MLR	B1D0590

Sample Number

1040743-04

Sample Description

AF00631 CGYP-2 DUP collected on 04/07/21 13:21

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:38	EPA 7470A		MLR	B1D0679
Boron	890	75	ug/L	5.00	04/16/21 14:56	EPA 6010D		MLR	B1D0837
Lithium	15	10	ug/L	1.00	04/16/21 16:29	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:29	EPA 6010D		MLR	B1D0590

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Project:

Ground Water

Work Order: Reported: 1040743 04/22/21 14:29

Sample Number

1040743-05

Sample Description

AF00632 CGYP-3 collected on 04/07/21 14:20

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	0.21	0.20	ug/L	1.00	04/16/21 10:46	EPA 7470A		MLR	B1D0679
Boron	23000	75	ug/L	5.00	04/16/21 15:00	EPA 6010D		MLR	B1D0837
Lithium	94	10	ug/L	1.00	04/16/21 16:33	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:33	EPA 6010D		MLR	B1D0590

Sample Number

1040743-06

Sample Description AF006

AF00634 CGYP-5 collected on 04/07/21 15:09

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:49	EPA 7470A		MLR	B1D0679
Boron	3100	75	ug/L	5.00	04/16/21 15:03	EPA 6010D		MLR	B1D0837
Lithium	60	10	ug/L	1.00	04/16/21 16:36	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:36	EPA 6010D		MLR	B1D0590

Sample Number

1040743-07

Sample Description AF00

AF00635 CGYP-6 collected on 04/07/21 16:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:52	EPA 7470A		MLR	B1D0679
Boron	7000	75	ug/L	5.00	04/16/21 15:07	EPA 6010D		MLR	B1D0837
Lithium	140	10	ug/L	1.00	04/16/21 16:40	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:40	EPA 6010D		MLR	B1D0590

Sample Number

1040743-08

Sample Description AF00697 CCMAP-4 collected on 04/08/21 10:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	04/16/21 15:49	EPA 6010D		MLR	B1D0590



Project:

Ground Water

Work Order: Reported: 1040743 04/22/21 14:29

Sample Number

1040743-09

Sample Description

AF00698 CCMAP-4 DUP collected on 04/08/21 10:37

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	04/16/21 15:54	EPA 6010D		MLR	B1D0590
	ND	10	ug/L	1.00	04/16/21 15:54	EPA 6010D		MLR	ВП

Sample Number Sample Description 1040743-10

AF00693 WLF-A2-6 collected on 04/08/21 15:27

Parameter -	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:54	EPA 7470A		MLR	B1D0679
Boron	310	75	ug/L	5.00	04/16/21 15:11	EPA 6010D		MLR	B1D0837
Lithium	24	10	ug/L	1.00	04/16/21 16:44	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:44	EPA 6010D		MLR	B1D0590

Sample Number

1040743-11

Sample Description

AF00694 WLF-A2-6 DUP collected on 04/08/21 15:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:57	EPA 7470A		MLR	B1D0679
Boron	280	75	ug/L	5.00	04/16/21 15:38	EPA 6010D		MLR	B1D0837
Lithium	32	10	ug/L	1.00	04/16/21 16:48	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:48	EPA 6010D		MLR	B1D0590

Sample Number

1040743-12

Sample Description

AF00695 WAP-17 collected on 04/08/21 13:31

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 11:00	EPA 7470A		MLR	B1D0679
Boron	3300	75	ug/L	5.00	04/16/21 13:35	EPA 6010D		MLR	B1D0837
Lithium	130	10	ug/L	1.00	04/16/21 14:01	EPA 6010D		MLR	B1D0590
Molybdenum	59	10	ug/L	1.00	04/16/21 14:01	EPA 6010D		MLR	B1D0590



Santee Cooper Project: Ground Water
1 Riverwood Dr. Work Order: 1040743

Moncks Corner, SC 29461 Reported: 04/22/21 14:29

Sample Number 1040743-13

Sample Description AF00696 WAP-17 DUP collected on 04/08/21 13:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 11:03	EPA 7470A		MLR	B1D0679
Boron	3300	75	ug/L	5.00	04/16/21 15:42	EPA 6010D		MLR	B1D0837
Lithium	120	10	ug/L	1.00	04/16/21 16:52	EPA 6010D		MLR	B1D0590
Molybdenum	57	10	ug/L	1.00	04/16/21 16:52	EPA 6010D		MLR	B1D0590



04/22/2021 14:29

Santee Cooper Project: Ground Water 1 Riverwood Dr. Work Order: 1040743

Moncks Corner, SC 29461 Reported: 04/22/21 14:29

Total Metals Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1D0590 - EPA 3005A										
Blank (B1D0590-BLK1)										
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1D0590-BS1)										
Lithium	256	10	ug/L	250		102	80-120			
Molybdenum	300	10	ug/L	250		120	80-120			
LCS Dup (B1D0590-BSD1)										
Lithium	266	10	ug/L	250		107	80-120	4	20	
Molybdenum	260	10	ug/L	250		105	80-120	14	20	
Matrix Spike (B1D0590-MS1)	Source: 1040743-03	3								
Lithium	260	10	ug/L	250	14	98	75-125			
Molybdenum	200	10	ug/L	250	ND	81	75-125			
Matrix Spike (B1D0590-MS2)	Source: 1040743-12	2								
Lithium	421	10	ug/L	250	126	118	75-125			
Molybdenum	310	10	ug/L	250	59	100	75-125			
Matrix Spike Dup (B1D0590-MSD1)	Source: 1040743-03	3								
Lithium	263	10	ug/L	250	14	100	75-125	1	20	
Molybdenum	210	10	ug/L	250	ND	83	75-125	2	20	
Matrix Spike Dup (B1D0590-MSD2)	Source: 1040743-12	2								
Lithium	412	10	ug/L	250	126	114	75-125	2	20	
Molybdenum	310	10	ug/L	250	59	98	75-125	0.9	20	
Post Spike (B1D0590-PS1)	Source: 1040743-03	3								
Lithium	501	10	ug/L	500	14	97	75-125			
Molybdenum	430	10	ug/L	500	ND	86	75-125			
Post Spike (B1D0590-PS2)	Source: 1040743-12	2								
Lithium	691	10	ug/L	500	126	113	75-125			
Molybdenum	570	10	ug/L	500	59	102	75-125			

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Project:

Ground Water

Work Order:

1040743

Reported:

04/22/21 14:29

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1D0679 - EPA 7470A										
Blank (B1D0679-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1D0679-BS1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120			
LCS Dup (B1D0679-BSD1)										
Mercury	5.0	0.20	ug/L	5.00		100	80-120	1	20	
Matrix Spike (B1D0679-MS1)	Source: 1040743-01									
Mercury	4.3	0.20	ug/L	5.00	ND	84	75-125			
Matrix Spike (B1D0679-MS2)	Source: 1040743-02									
Mercury	4.7	0.20	ug/L	5.00	ND	92	75-125			
Matrix Spike Dup (B1D0679-MSD1)	Source: 1040743-01									
Mercury	4.3	0.20	ug/L	5.00	ND	83	75-125	0.9	20,	
Matrix Spike Dup (B1D0679-MSD2)	Source: 1040743-02									
Mercury	4.7	0.20	ug/L	5.00	ND	93	75-125	0.7	20	
Post Spike (B1D0679-PS1)	Source: 1040743-01									
Mercury	3.4		ug/L	4.00	ND	82	80-120			
Post Spike (B1D0679-PS2)	Source: 1040743-02									
Mercury	3.6		ug/L	4.00	ND	88	80-120			
Post Spike (B1D0679-PS3)	Source: 1040743-03									
Mercury	3.2		ug/L	4.00	ND	81	80-120			
Post Spike (B1D0679-PS4)	Source: 1040743-04									
Mercury	3.2		ug/L	4.00	ND	80	80-120			
Post Spike (B1D0679-PS5)	Source: 1040743-05									
Mercury	3.8		ug/L	4.00	0.21	89	80-120			



04/22/2021 14:29

Santee Cooper Project: Ground Water
1 Riverwood Dr. Work Order: 1040743

Moncks Corner, SC 29461 Reported: 04/22/21 14:29

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1D0679 - EPA 7470A										
Post Spike (B1D0679-PS6)	Source: 1040743-06									
Мегситу	3.5		ug/L	4.00	ND	86	80-120			
Post Spike (B1D0679-PS7)	Source: 1040743-07									
Mercury	3.6		ug/L	4.00	ND	89	80-120			
Post Spike (B1D0679-PS8)	Source: 1040743-10									
Мегсигу	3.9		ug/L	4.00	ND	98	80-120			
Post Spike (B1D0679-PS9)	Source: 1040743-11									
Mercury	3.8		ug/L	4.00	ND	96	80-120			
Post Spike (B1D0679-PSA)	Source: 1040743-12									
Мегситу	3.7		ug/L	4.00	ND	91	80-120			
Post Spike (B1D0679-PSB)	Source: 1040743-13									
Mercury	3.8		ug/L	4.00	ND	93	80-120			
Batch B1D0837 - EPA 3005A										
Blank (B1D0837-BLK1)										
Boron	ND	15	ug/L							
LCS (B1D0837-BS1)										
Boron	210	15	ug/L	250		82	80-120			
LCS Dup (B1D0837-BSD1)										
Boron	240	15	ug/L	250		95	80-120	14	20	
Matrix Spike (B1D0837-MS1)	Source: 1040743-03									
Boron	1800	75	ug/L	1250	850	80	75-125			
Matrix Spike (B1D0837-MS2)	Source: 1040743-12									
Boron	4600	75	ug/L	1250	3300	105	75-125			

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Project:

Ground Water

Work Order: Reported: 1040743 04/22/21 14:29

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1D0837 - EPA 3005A										
Matrix Spike Dup (B1D0837-MSD1)	Source: 1040743-03									
Boron	2000	75	ug/L	1250	850	93	75-125	8	20	
Matrix Spike Dup (B1D0837-MSD2)	Source: 1040743-12									
Boron	4600	75	ug/L	1250	3300	102	75-125	0.9	20	
Post Spike (B1D0837-PS1)	Source: 1040743-03									
Boron	3200	75	ug/L	2500	850	95	75-125			
Post Spike (B1D0837-PS2)	Source: 1040743-12									
Boron	5900	75	ug/L	2500	3300	105	75-125			



 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1040743

 Moncks Corner, SC 29461
 Reported:
 04/22/21 14:29

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1D0590	1040743-01	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-01	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-02	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-02	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-03	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-03	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-04	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-04	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-05	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-05	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-06	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-06	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-07	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-07	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-08	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-09	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-10	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-10	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-11	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-11	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-12	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-12	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-13	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-13	04/14/2021 13:25	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1D0679	1040743-01	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-02	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-03	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-04	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-05	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-06	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-07	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-10	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-11	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-12	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-13	04/15/2021 13:11	ELN	

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Santee Cooper Project: Ground Water
1 Riverwood Dr. Work Order: 1040743
Moncks Corner, SC 29461 Reported: 04/22/21 14:29

Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

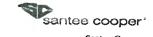
NR Not reported

RPD Relative Percent Difference

X Result subject to sample matrix interference. Reporting limit has been adjusted where applicable.

Chain of Custody

1040743



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

Customer Email/Report Recipient: Date Results Needed by: Project/Task/Unit #: Rerun request for any flagged QC LCW!LLIA @santeecooper.com 121567 / JM02.09.GØI / 36500 Yes No 104843 **Analysis Group** Labworks ID# Sample Location/ Comments (Internal use Matrix(see below) Preservative (see below) **Collection Date** Collection Time Description (Glass-Fotal # of containers Sample Collector Method # only) Grab (G) or Composite (C) Reporting limit Bottle type: (G/Plastic-P) Misc. sample info Any other notes 王 30 ī ٤ DEW CGYP-4 2 AF00633 4/7/21 1106 G GW B, Li, MO - 6010 -01 X X Х 2 CGYP-1 1216 Hg 7470A ~ D & 3 AF-00630 CGYP-2 13/6 -07 4 CGYP-2 DUP 1321 -ou CGYP-3 1420 -05 AF 00634 CGYP-5 1509 -06 AF 00635 CGYP-6 -07 1602 AF 00697 4/8/21 CCMAP-4 1032 -C) & X AF-00698 CCMAP- 4 DUP 1037 -00 Х Sample Receiving (Internal Use Only) Relinquished by: Employee# Date Time Received by: Employee # Date Time TEMP (°C): |9.2 Initial: Afgroun 35594 Te dex 1/2/2/ (200) 4/12/21 1200 Relinquished by: Correct pH: Yes Employee# Date Time Received by: Employee # Date Time 4/14/21 toder Preservative Lot#: 0920 behoen Rose 14/2 0920 Relinquished by: Employee# Date Time Received by: Employee # Date Time Date/Time/Init for preservative: ☐ METALS (all) Nutrients MISC. Gypsum Coal O Ag □ Cu □ Sb Flyash OIL **DBTEX** Wallboard ∃ Fe □ Se □ Ultimate Trust, Offigual. Ammonia BEF □ Napthalene Gypsum(all ☐ % Moisture ☐ As $\Box K$ LOI ☐ Sn OTHM/HAA below) □ Ash % Carbon JVOC □ **B** AIM \Box Li □ Sr ☐ Sulfur □ Oil & Grease Mineral TOC □ BTUs □ Ba □E Coli □ Mg □ Ti Analysis Total metals ☐ Total Coliform ☐ Volatile Matter Sieve Soluble Metals □ Be C Mn □ TI □pH O CHN Punny (CaSO4) % Moishage ☐ Dissolved As □ Ca □ Mo $\square V$ % Moisture Other Tests: Dissolved Fe Sulfites O XRF Scan □ Cd **NPDES** □ Na □ Zn □ Rad 226 PH O HGI ☐ Rad 228 Oil & Grease □ Co □ Ni □ Hg Chlorides □ Fineness J PCB Particulate Matter Particle Size □ Cr ☐ Pb CrVI TSS SHEER

Chain of Custody

1040743



Santee Cooper One Riverwood Drivo Moneks Corner, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

		Report Recip	ient:	Dat	e Results N	esults Needed by: Project/Task/Unit #:			R	erun requ	est for a	any fl	agge	d C					
LCWIL	LLIA	@santee	cooper.con	n <u> </u>	_//		_	1215	67/	JM	02.0°	ે. ઉછા	7 36	500	Ye	s No			
																	Analy:	sis Gro	пБ
Labworks (Internal to only)		Sample Locati Description	on/	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)	• 1	Co Method # Reporting li Misc. sampl Any other n	le info		TO		Mo	140
AF-006	93	WLF-A2-	6	4/8/	21 1527	DEN	i i	P	G 6	÷W.	2	ਰ, เ	i, Mo	6 C !C	-010	×	×	×	;
AF 006	94	WLF-AZ-	6 DUP	1	1532		1)				Hg	7470A		711				
AF 006	75	WAP-17			1331										1/2		\prod		
AFOC6	96	WAP-17	DUP		1336			<u> </u>			_				-13		1		
		<u></u>	- ,																
Relinquist	hed by:	Employee#	Date	Time	Receive	ed by:	Empl	oyee#		Date	1	Time	Samp	le Receiv	ing (Interna	l Use Or Initia	ly)		
Myour		35594	4/12/21	1200	Fede	+			1/12		l	1200			-				
Relinquish		Employee#	Date	Time	Receive		Empl	oyee #	1	Date		Time		ect pH:		0			
ful ex			4/1414	0920	Kledolo	, Wore			97/4	4	0	920	Prese	rvative l	Lot#:				
Relinquish	ned by:	Employee#	Date	Time	Receive	d by:	Emple	oyee #		Date		Time							
													Date/	Time/Ini	t for preser	vative:			
		ALS (all)	Nut	rients	MIS	C		Gyps	um			Coa	1	CI.	and h		-		
□ Ag	□ Cu	□ Sb	ine		BTEX		C W	Uboard			10.10	Itimate			yash	170	Di		
D Al	□ Fe	□ Se	D0	t I	□ Napthaler		4	Gypsun				3 % Mo		LO	monis			- Vinas	
□ As	□K	□ Sn		TROIL	☐ THM/HA ☐ VOC	A		AJM				Ash		0 6 0	arbon				
⊡ B □ Ba	□ Li	□ Sr	F		□ Oil & Gre □ E. Coli	ase	1	THE				Sulfur BTUs		1	enal Analysis				
	∏Mg	O Ti	a 61		□ Total Coli	form		Soluble		_			le Matter	□ Sies			١.		
□ Be	□ Mn	C TI	NO Bi-		☐ pH ☐ Dissolved	An		Purity (CaSU4			CHN		e'e X	loisture	L'an	d Oil		
□ Ca	□Мо	D V	NO.		Dissolved Dissolved			Sulfites				er Tests RF Scan	:		DEC				
□Cd	□ Na	□ Zn	50		□ Rad 226 □ Rad 228		E	pH			DHO	31			DES				
					LI Rad 448			Chlond	- N		Fire	neness		UII A	Gresse				
Co Cr	□ Ni □ Pb	☐ Hg			DPCB			Particle				rticulate 1	Matter	⊒As.					



Revised February 2018

Sample Receipt Verification

	Date ceived:	4/	14/21		Work Order: ¹⁰⁴⁰⁷⁴³
Carrier Name: Client FedEx UPS	US N	Mail		Cou	rrier Field Services Other:
Tracking Number: 804037	735696				_
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Х			Damaged Leaking Other:
Custody seals intact?	Ì			х	
COC included with samples?		Х			
COC signed when relinquished and received?		Х			
Sample bottles intact?		Х			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Х			
Date / time on COC agree with label on bottle(s)?		Х			
Number of bottles on COC agrees with number of bottles rece	eived?	Х			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Х			
VOA vials free of headspace (<6mm bubble)?				х	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer - SN: 9705	0067			х	Ice Cold Packs Dry Ice None
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in the la Note: Samples for O&G and VOA analysis – preservation checked at ben	ıb. ch.	Х			
Samples dechlorinated for parameters requiring chlorine remo the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA, a analysis.	val at			х	
If in-house pres	ervation	used	– re	cord	Lot#
HCL	H ₃ P				
H ₂ SO ₄ HNO ₃	NaC Oth				
Comments:					
Were non-conformance issues noted at sample receipt?	Vec	OI		No)
Non-Conformance issue other than noted above:	1 03	01	1	<u></u>	
Davigad Columna, 2010				C	omplated by: KRU

Completed by:____





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project: Work Order:

Received:

Ground Water

1080231

08/03/2021 09:15

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on August 03, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Lauren Hollister

Report Approved By:

Lauren Hollister

Project Manager





South Carolina Greenville Laboratory Identification 23105 South Carolina Columbia Laboratory Identification 40572 North Carolina Laboratory Certification Number 27 North Carolina Drinking Water Lab Number 45710 NELAP Utah Certificate Number SC000042014-1 Georgia Drinking Water Lab ID 880

Project: Ground Water
Work Order: 1080231

Received:

08/03/2021 09:15

Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Sample Number	Sample Description	Matrix	Sampled	Type
1080231-01	AF09053 WAP-4	Ground Water	07/19/21 11:24	Grab
1080231-02	AF09070 WAP-15	Ground Water	07/19/21 10:30	Grab
1080231-03	AF09065 WAP-14	Ground Water	07/19/21 14:22	Grab
1080231-04	AF09066 WAP-14 DUP	Ground Water	07/19/21 14:27	Grab
1080231-05	AF09067 WAP-14A	Ground Water	07/19/21 13:46	Grab
1080231-06	AF09069 WAP-14C	Ground Water	07/19/21 15:39	Grab
1080231-07	AF09068 WAP-14B	Ground Water	07/19/21 16:34	Grab
1080231-08	AF09050 WAP-1	Ground Water	07/20/21 12:28	Grab
1080231-09	AF09051 WAP-2	Ground Water	07/20/21 13:28	Grab
1080231-10	AF09083 WBW-1	Ground Water	07/20/21 11:07	Grab



Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1080231

Moncks Corner, SC 29461 08/19/21 22:26 Reported:

Sample Data

Sample Number

1080231-01

Sample Description

AF09053 WAP-4 collected on 07/19/21 11:24

Sample Description	Al 07055 WAI -4 conceicd of	11 07/1	7/21 11.2 4							
Parameter	Res	sult	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals										
Boron	18	80	15	ug/L	1.00	08/10/21 16:10	EPA 6010D		MLR	B1H0147
Lithium	N	D	10	ug/L	1.00	08/10/21 16:10	EPA 6010D		MLR	B1H0147
Sample Number Sample Description	1080231-02 AF09070 WAP-15 collected of	on 07/	19/21 10:30							
Parameter	Res	sult	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals										
Boron	10	00	15	ug/L	1.00	08/10/21 16:13	EPA 6010D		MLR	B1H0147
Lithium	N	D	10	ug/L	1.00	08/10/21 16:13	EPA 6010D		MLR	B1H0147
Sample Number Sample Description	1080231-03 AF09065 WAP-14 collected of	on 07/	19/21 14:22							
Parameter -	Res	sult	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals										
Boron	86	00	75	ug/L	5.00	08/10/21 14:56	EPA 6010D		MLR	B1H0147
Lithium	N	D	10	ug/L	1.00	08/10/21 16:17	EPA 6010D		MLR	B1H0147
Sample Number Sample Description	1080231-04 AF09066 WAP-14 DUP colle	ected o	on 07/19/21 1	4:27						
Parameter	Res	sult	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals										
Boron	87	00	75	ug/L	5.00	08/10/21 14:59	EPA 6010D		MLR	B1H0147
Lithium	N	D	10	ug/L	1.00	08/10/21 16:32	EPA 6010D		MLR	B1H0147
Sample Number Sample Description	1080231-05 AF09067 WAP-14A collected	d on 0°	7/19/21 13:4	6						
Parameter -	Res	sult	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals										
Lithium	4	0	10	ug/L	1.00	08/10/21 18:40	EPA 6010D	S 1	MLR	B1H0482

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Santee Cooper Project: 1 Riverwood Dr. Work Order:

Moncks Corner, SC 29461 Reported: 08/19/21 22:26

Ground Water

1080231

1080231-06 Sample Number

		9						
Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
13	10	ug/L	1.00	08/10/21 15:24	EPA 6010D		MLR	B1H0147
1080231-07 AF09068 WAP-14B collected on (07/19/21 16:3	4						
Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
15	10	ug/L	1.00	08/10/21 15:28	EPA 6010D		MLR	B1H0147
1080231-08 AF09050 WAP-1 collected on 07/	/20/21 12:28							
Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
ND	0.20	ug/L	1.00	08/09/21 11:58	EPA 7470A		NAR	B1H0392
26	15	ug/L	1.00	08/13/21 00:00	EPA 6010D		MLR	B1H0147
ND	10	ug/L	1.00	08/10/21 15:31	EPA 6010D		MLR	B1H0147
ND	10	ug/L	1.00	08/10/21 15:31	EPA 6010D		MLR	B1H0147
1080231-09 AF09051 WAP-2 collected on 07/	/20/21 13:28							
Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
8300	75	ug/L	5.00	08/10/21 14:21	EPA 6010D		MLR	B1H0147
1080231-10 AF09083 WBW-1 collected on 07	7/20/21 11:07							
Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
ND	0.20	ug/L	1 00	08/09/21 12:09	EPA 7470A		NAR	B1H0392
								B1H0147
.112		J						
ND	10	ug/L	1.00	08/10/21 15:49	EPA 6010D		MLR	B1H0147
1 2	13 1080231-07 AF09068 WAP-14B collected on 18 Result 15 1080231-08 AF09050 WAP-1 collected on 07/ Result ND 26 ND ND 1080231-09 AF09051 WAP-2 collected on 07/ Result 8300 1080231-10 AF09083 WBW-1 collected on 07	Result Limit	13	13 10 ug/L 1.00	13 10 ug/L 1.00 08/10/21 15:24	13	13 10 ug/L 1.00 08/10/21 15:24 EPA 6010D	Result Limit Units DF Analyzed Method Flag Analyzed

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Santee CooperProject:Ground Water1 Riverwood Dr.Work Order:1080231Moncks Corner, SC 29461Reported:08/19/21 22:26

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0147 - EPA 3005A										
Blank (B1H0147-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1H0147-BS1)										
Boron	500	15	ug/L	500		99	80-120			
Lithium	519	10	ug/L	500		104	80-120			
Molybdenum	490	10	ug/L	500		99	80-120			
Matrix Spike (B1H0147-MS1)	Source: 1080231-0	5RE1								
Boron	7200	75	ug/L	500	6500	142	75-125			S5
Lithium	637	50	ug/L	500	ND	120	75-125			
Molybdenum	520	50	ug/L	500	ND	105	75-125			
Matrix Spike Dup (B1H0147-MSD1)	Source: 1080231-0	5RE1								
Boron	7300	75	ug/L	500	6500	145	75-125	0.2	20	S 5
Lithium	634	50	ug/L	500	ND	120	75-125	0.5	20	
Molybdenum	520	50	ug/L	500	ND	104	75-125	0.5	20	
Post Spike (B1H0147-PS1)	Source: 1080231-0	5RE1								
Boron	9100	75	ug/L	2500	6500	102	75-125			
Lithium	2890	50	ug/L	2500	ND	114	75-125			
Molybdenum	2600	50	ug/L	2500	ND	104	75-125			
Batch B1H0392 - EPA 7470A										
Blank (B1H0392-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1H0392-BS1)										
Mercury	5.1	0.20	ug/L	5.00		102	80-120			
Matrix Spike (B1H0392-MS1)	Source: 1080231-0	8								
Mercury	4.9	0.20	ug/L	5.00	ND	97	75-125			
			-							

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Santee Cooper Project:
1 Riverwood Dr. Work Order:
Moncks Corner, SC 29461 Reported:

Total Metals **Quality Control Summary**

Ground Water

08/19/21 22:26

1080231

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
a us differen	Nesun		Cans	Level	Acsuit	/VICEC		- KI D	Linut	T. 14g3
Batch B1H0392 - EPA 7470Å										
Matrix Spike Dup (B1H0392-MSD1)	Source: 1080231-08									
Мегситу	4.9	0.20	ug/L	5.00	ND	97	75-125	0.3	20	
Post Spike (B1H0392-PS1)	Source: 1080231-08									
Mercury	3.8		ug/L	4.00	ND	95	80-120			
Batch B1H0482 - EPA 3005A										
Blank (B1H0482-BLK1)										
Lithium	ND	10	ug/L							
LCS (B1H0482-BS1)										
Lithium	499	10	ug/L	500		100	80-120			
Matrix Spike (B1H0482-MS1)	Source: 1080231-05									
Lithium	715	10	ug/L	500	40	135	75-125			S1
Matrix Spike Dup (B1H0482-MSD1)	Source: 1080231-05									
Lithium	717	10	ug/L	500	40	135	75-125	0.4	20	S1
Post Spike (B1H0482-PS1)	Source: 1080231-05									
ithium	0.703		mg/L	0.500	ND	133	75-125			Sl



Santee Cooper Project: Ground Water 1 Riverwood Dr. Work Order: 1080231 Moncks Corner, SC 29461 Reported: 08/19/21 22:26

Sample Preparation Data

EPA 3005A ICP Digestion EPA 3005A B1H0147 1080231-01 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-02 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-03 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-04 08/04/2021 09:25 CAL EPA 3005A B1H0482 1080231-05 08/10/2021 13:03 MTH EPA 3005A B1H0147 1080231-06 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-07 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-08 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion B1H0147 1080231-08 08/09/2021 09:14 NAR	Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A B1H0147 1080231-02 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-03 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-04 08/04/2021 09:25 CAL EPA 3005A B1H0482 1080231-05 08/10/2021 13:03 MTH EPA 3005A B1H0147 1080231-06 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-07 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-08 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion B1H0147 1080231-10 08/09/2021 09:14 NAR	EPA 3005A ICP Digestion					
EPA 3005A B1H0147 1080231-03 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-04 08/04/2021 09:25 CAL EPA 3005A B1H0482 1080231-05 08/10/2021 13:03 MTH EPA 3005A B1H0147 1080231-06 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-07 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-08 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-10 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0147	1080231-01	08/04/2021 09:25	CAL	
EPA 3005A B1H0147 B1H0482 B1H0482 B1H0482 B1H0482 B1H0482 B1H0147 B1H0	EPA 3005A	B1H0147	1080231-02	08/04/2021 09:25	CAL	
EPA 3005A B1H0482 B1H0487 B1H0487 B1H0487 B1H0487 B1H0147 B1H0	EPA 3005A	B1H0147	1080231-03	08/04/2021 09:25	CAL	
EPA 3005A B1H0147 1080231-06 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-07 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-08 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-10 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0147	1080231-04	08/04/2021 09:25	CAL	
EPA 3005A B1H0147 1080231-07 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-08 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-10 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0482	1080231-05	08/10/2021 13:03	MTH	
EPA 3005A B1H0147 1080231-08 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-10 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0147	1080231-06	08/04/2021 09:25	CAL	
EPA 3005A B1H0147 1080231-09 08/04/2021 09:25 CAL EPA 3005A B1H0147 1080231-10 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0147	1080231-07	08/04/2021 09:25	CAL	
EPA 3005A B1H0147 1080231-10 08/04/2021 09:25 CAL EPA 7470A Mercury Digestion EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0147	1080231-08	08/04/2021 09:25	CAL	
EPA 7470A Mercury Digestion EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0147	1080231-09	08/04/2021 09:25	CAL	
EPA 7470A B1H0392 1080231-08 08/09/2021 09:14 NAR	EPA 3005A	B1H0147	1080231-10	08/04/2021 09:25	CAL	
	EPA 7470A Mercury Digestion					
	EPA 7470A	B1H0392	1080231-08	08/09/2021 09:14	NAR	
EPA 7470A B1H0392 1080231-10 08/09/2021 09:14 NAR	EPA 7470A	B1H0392	1080231-10	08/09/2021 09:14	NAR	



Santee Cooper Project: Ground Water

1 Riverwood Dr. Work Order: 1080231

Moncks Corner, SC 29461 Reported: 08/19/21 22:26

Data Qualifiers and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported
RPD	Relative Percent Difference
S1	The matrix spike and / or the matrix spike duplicate sample recovery was not within control limits due to matrix interference. The Laboratory Control Sample (LCS) was within control limits.
S5	The raw sample concentration was greater than four times the spike concentration. The spike recovery was not evaluated against the control limits.

Chain of Custody



One Riverwood Drive Moncks Corner, SC 29461
Phone: (843)761-8005 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: Date Results Needed by: Project/Task/Unit #: Rerun request for any flagged QC LOWILLIA @santeecooper.com 121567 JM02.09.601 36500 Yes No **Analysis Group** Labworks ID # Sample Location/ Comments (Internal use Collection Date Collection Time Description · Method # Collector Preservative (s below) only) Reporting limit S Bottle type: (G/Plastic-P) Matrior(see Grab (G) or Composite (C Misc. sample info Total # of Any other notes ž E Ĺ, BRT 7/19/24 GW 2 AF 09053 WAP-4 1124 CNS Х Χ AF09070 1030 Χ Χ WAP - 15 1422 AF09065 WAP - 14 ŧ Х Х 1 WAP- 14 DUP 1427 Χ AF 09066 WAP- 14A AF09067 1346 Х X AF-09069 1539 WAP-140 AF09068 1634 L Χ WAP - 148 MDG X X AF09050 7/20/21 1228 X X WAP-1 ١ WAP-2 7/20/21 1328 AF09051 L ŧ Χ WBW-1 1107 Х AF69083 7/20/21 Х х Sample Receiving (Internal Use Only) Relinquished by: Employee# Date Time Received by: Employee # Time TEMP (°C): 34 4 Initial: -POFX Agroun 95594 8/2/21 1530 Correct pH: Yes Relinquished by: Employee# Date Time Received by: Employee # Date Time Preservative Lot#: FECTEX 8.3.21 0915 \mathcal{D} 8.3.21 0915 Refinguished by: Employee# Date ._ Received by: Time Employee # Date Time Date/Time/Init for preservative: ☐ METALS (all) Nutrients Gypsum MISC. Coal Flyash Oil □ Sb □ Ag □ Cu TOC BTEX Wallboard □ Ultimate Trans, Oll Qual. Ammonia □ Al □ Fe □ Se DOC □ Napthalene Gypsum(all ☐ % Moisture LOL □ As □ THM/HAA FIK □ Sn below) TP TPO4 □ Ash E % Carbon DVOC E AIM Adulity
(Directory Strength
(R)) NHH-N $\square B$ □ Li □ Sr ☐ Sulfur □ Mineral □ Oil & Grease TOC TF □ BTUs Analysis □ Ba □ Mg □ Ti DE. Coli T Siève CL □ Volatile Matter Dissolved Gases Used Dill ☐ Total Coliform Soluble Metals □ Be □ Mn DTI NO2 □pH D CHN □ % Moisture Parity (CaSO4) Br ☐ Dissolved As Other Tests: □ Ca ΠV 29 Molsture □ Mo ☐ Dissolved Fe NO3 Sulfites □ XRF Scan NPDES □ Cd □ Na □ Zn SO4 □ Rad 226 PpH O HGI Oil & Grease □ Rad 228 Chlorades El Fineness □ Co □Ni □ Hg □ PCB Particle Size Particulate Matter □ Cr □ Pb □ CrVI GUEER



Sample Receipt Verification

Client: Sar	ntee Cooper		Date Received:	08	/03/2	021	Work Order: ¹⁰⁸⁰²³¹		
Carrier Name:	Client	FedEx UPS	US l	Mail Courier Field Services Other:					
	Trackir	g Number:					<u> </u>		
Receipt Crite	eria			Y e s	N o	N A	Comments		
Shipping contain	iner / cooler inta	et?		х			Damaged Leaking Other:		
Custody seals in	ntact?					,X			
COC included	with samples?			х					
COC signed wh	nen relinquished	and received?		х					
Sample bottles	intact?			х			Damaged Leaking Other:		
Sample ID on C	COC agree with l	abel on bottle(s)?		х					
Date / time on (COC agree with	abel on bottle(s)?		х					
Number of bott	tles on COC agre	es with number of bottles	received?	х					
Samples receive	ed within holding	g time?		х					
Sample volume	sufficient for an	alysis?		х					
VOA vials free	of headspace (<	6mm bubble)?				х			
Samples cooled	1 /	eipt recorded on COC ured with IR thermometer - SN:	: 97050067	х			Ice Cold Packs Dry Ice None		
Note: Samples	ing pH preservat	on at proper pH? ay be preserved upon receipt in nalysis – preservation checked a	the lab.	х					
Samples dechlor the time of sam	orinated for parar	neters requiring chlorine r r samples requiring Bacterial, V	removal at			х			
		If in-house	preservation	used	— re	cord	Lot#		
HCL			H ₃ P						
H ₂ SO ₄ HNO ₃			Na(Oth						
Comments:									
Were non-con	nformance issue	s noted at sample recei	pt? Yes	s or	. (1	No)			
	nce issue other th		L 10.	. 01					
Revised February 2	2018					Co	ompleted by: CSG		





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project:

Received:

Ground Water

1080871

Work Order:

08/13/2021 09:25

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on August 13, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

South Carolina Greenville Laboratory Identification 23105 South Carolina Columbia Laboratory Identification 40572 North Carolina Laboratory Certification Number 27 North Carolina Drinking Water Lab Number 45710 NELAP Utah Certificate Number SC000042014-1 Georgia Drinking Water Lab ID 880

Project: Ground Water
Work Order: 1080871

Received: 08/13/2021 09:25

Sample Number	Sample Description	Matrix	Sampled	Type
1080871-01	AF09085 WLF-A1-1	Ground Water	08/05/21 12:46	Grab
1080871-02	AF09056 WAP-7	Ground Water	08/10/21 15:00	Grab
1080871-03	AF09076 WAP-20	Ground Water	08/10/21 15:36	Grab
1080871-04	AF09081 WAP-25	Ground Water	08/10/21 13:32	Grab
1080871-05	AF09082 WAP-26	Ground Water	08/10/21 11:46	Grab
1080871-06	AF09086 WLF-A1-2	Ground Water	08/11/21 13:35	Grab
1080871-07	AF09087 WLF-A1-3	Ground Water	08/11/21 12:05	Grab
1080871-08	AF09088 WLF-A1-4	Ground Water	08/11/21 11:07	Grab
1080871-09	AF09089 WLF-A1-4 DUP	Ground Water	08/11/21 11:12	Grab
1080871-10	AF09052 WAP-3	Ground Water	07/29/21 12:35	Grab
1080871-11	AF09071 WAP-16	Ground Water	07/29/21 15:38	Grab
1080871-12	AF09064 WAP-13	Ground Water	07/29/21 11:29	Grab
1080871-13	AF09062 WAP-12	Ground Water	07/29/21 13:54	Grab
1080871-14	AF09063 WAP-12 DUP	Ground Water	07/29/21 13:59	Grab
1080871-15	AF09080 WAP-24	Ground Water	08/02/21 12:50	Grab
1080871-16	AF09059 WAP-10	Ground Water	08/02/21 11:34	Grab
1080871-17	AF09060 WAP-10 DUP	Ground Water	08/02/21 11:39	Grab
1080871-18	AF09058 WAP-9	Ground Water	08/02/21 13:39	Grab
1080871-19	AF09072 WAP-17	Ground Water	08/02/21 15:12	Grab
1080871-20	AF09073 WAP-17 DUP	Ground Water	08/02/21 15:17	Grab
1080871-21	AF09079 WAP-23	Ground Water	08/03/21 12:36	Grab
1080871-22	AF09077 WAP-21	Ground Water	08/03/21 11:30	Grab
1080871-23	AF09075 WAP-19	Ground Water	08/03/21 16:27	Grab
1080871-24	AF09078 WAP-22	Ground Water	08/04/21 13:31	Grab
1080871-25	AF09091 WLF-A2-6	Ground Water	08/04/21 15:02	Grab
1080871-26	AF09092 WLF-A2-6 DUP	Ground Water	08/04/21 15:07	Grab
1080871-27	AF09074 WAP-18	Ground Water	08/04/21 12:16	Grab

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Santee Cooper Project: Ground Water 1 Riverwood Dr. 1080871 Work Order: Moncks Corner, SC 29461 Reported: 08/27/21 23:29

Sample Number	Sample Description	Matrix	Sampled	Type
1080871-28	AF09084 WBW-A1-1	Ground Water	08/05/21 10:30	Grab
1080871-29	AF09090 WLF-A1-5	Ground Water	08/05/21 11:38	Grab



Santee CooperProject:Ground Water1 Riverwood Dr.Work Order:1080871Moncks Corner, SC 29461Reported:08/27/21 23:29

Sample Data

Sample Number

1080871-01

Sample Description

AF09085 WLF-A1-1 collected on 08/05/21 12:46

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 14:50	EPA 7470A		NAR	B1H0833
Boron	1100	20	ug/L	1.00	08/17/21 19:18	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 19:18	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:18	EPA 6010D		MLR	B1H0709

Sample Number

1080871-02

Sample Description

AF09056 WAP-7 collected on 08/10/21 15:00

		Reporting							
Parameter	Result	Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:01	EPA 7470A		NAR	B1H0833
Boron	970	20	ug/L	1.00	08/17/21 18:16	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 18:16	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 18:16	EPA 6010D		MLR	B1H0709

Sample Number

1080871-03

Sample Description

AF09076 WAP-20 collected on 08/10/21 15:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:18	EPA 7470A		NAR	B1H0833
Boron	1800	20	ug/L	1.00	08/17/21 19:22	EPA 6010D		MLR	B1H0709
Lithium	41	10	ug/L	1.00	08/17/21 19:22	EPA 6010D		MLR	B1H0709
Molybdenum	21	10	ug/L	1.00	08/17/21 19:22	EPA 6010D		MLR	B1H0709

Sample Number

1080871-04

Sample Description

AF09081 WAP-25 collected on 08/10/21 13:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	08/17/21 19:26	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:26	EPA 6010D		MLR	B1H0709

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Project:

Ground Water

Work Order:

1080871

Reported:

08/27/21 23:29

Sample Number

1080871-05

Sample Description

AF09082 WAP-26 collected on 08/10/21 11:46

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	08/17/21 19:30	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:30	EPA 6010D		MLR	B1H0709

Sample Number

1080871-06

Sample Description

AF09086 WLF-A1-2 collected on 08/11/21 13:35

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
		LAIRK			-				
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:21	EPA 7470A		NAR	B1H0833
Boron	87	20	ug/L	1.00	08/17/21 19:53	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 19:53	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:53	EPA 6010D		MLR	B1H0709

Sample Number

1080871-07

Sample Description AF09087 WLF-A1-3 collected on 08/11/21 12:05

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:24	EPA 7470A		NAR	B1H0833
Boron	70	20	ug/L	1.00	08/17/21 19:57	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 19:57	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:57	EPA 6010D		MLR	B1H0709

Sample Number

1080871-08

Sample Description AF09088 WLF-A1-4 collected on 08/11/21 11:07

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:26	EPA 7470A		NAR	B1H0833
Boron	170	20	ug/L	1.00	08/17/21 20:00	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 20:00	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:00	EPA 6010D		MLR	B1H0709



Project:

Ground Water

Work Order: Reported: 1080871 08/27/21 23:29

Sample Number

1080871-09

Sample Description

AF09089 WLF-A1-4 DUP collected on 08/11/21 11:12

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:29	EPA 7470A		NAR	B1H0833
Boron	180	20	ug/L	1.00	08/17/21 20:04	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 20:04	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:04	EPA 6010D		MLR	B1H0709
Sample Number Sample Description	1080871-10 AF09052 WAP-3 collected on 0	7/29/21 12:35							
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	1700	20	ug/L	1.00	08/17/21 18:36	EPA 6010D		MLR	B1H0709
Sample Number Sample Description	1080871-11 AF09071 WAP-16 collected on	07/29/21 15:38							
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	1500	20	ug/L	1.00	08/17/21 20:08	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 20:08	EPA 6010D		MLR	B1H0709
Sample Number Sample Description	1080871-12 AF09064 WAP-13 collected on	07/29/21 11:29							
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	4200	20	ug/L	1.00	08/17/21 20:12	EPA 6010D		MLR	B1H0709
Sample Number Sample Description	1080871-13 AF09062 WAP-12 collected on	07/29/21 13:54							
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	370	20	ug/L	1.00	08/17/21 20:16	EPA 6010D		MLR	B1H0709



Project:

Ground Water

Work Order:

1080871

Reported:

08/27/21 23:29

Sample Number

1080871-14

Sample Description

AF09063 WAP-12 DUP collected on 07/29/21 13:59

Parameter		Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals										
Boron		390	20	ug/L	1.00	08/17/21 20:20	EPA 6010D		MLR	B1H0709
Sample Number Sample Description	1080871-15 AF09080 WAP-24 collec	cted on 08	/02/21 12:50							

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	08/17/21 20:43	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:43	EPA 6010D		MLR	B1H0709

Sample Number

1080871-16

AF09059 WAP-10 collected on 08/02/21 11:34 Sample Description

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	8800	100	ug/L	5.00	08/17/21 16:56	EPA 6010D		MLR	B1H0709
Lithium	25	10	ug/L	1.00	08/17/21 20:47	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:47	EPA 6010D		MLR	B1H0709

Sample Number

1080871-17

Sample Description AF09060 WAP-10 DUP collected on 08/02/21 11:39

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	8700	100	ug/L	5.00	08/17/21 16:59	EPA 6010D		MLR	B1H0709
Lithium	25	10	ug/L	1.00	08/17/21 20:51	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:51	EPA 6010D		MLR	B1H0709



Project:

Ground Water

Work Order:

1080871

Reported:

08/27/21 23:29

Sample Number

1080871-18

Sample Description

AF09058 WAP-9 collected on 08/02/21 13:39

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	4600	20	ug/L	1.00	08/17/21 20:54	EPA 6010D		MLR	B1H0709
Lithium	57	10	ug/L	1.00	08/17/21 20:54	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:54	EPA 6010D		MLR	B1H0709

Sample Number

1080871-19

Sample Description

AF09072 WAP-17 collected on 08/02/21 15:12

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	4100	20	ug/L	1.00	08/17/21 20:58	EPA 6010D		MLR	B1H0709
Lithium	12	10	ug/L	1.00	08/17/21 20:58	EPA 6010D		MLR	B1H0709
Molybdenum	12	10	ug/L	1.00	08/17/21 20:58	EPA 6010D		MLR	B1H0709

Sample Number

1080871-20

Sample Description AF09073 WAP-17 DUP collected on 08/02/21 15:17

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	3900	20	ug/L	1.00	08/17/21 21:02	EPA 6010D		MLR	B1H0709
Lithium	11	10	ug/L	1.00	08/17/21 21:02	EPA 6010D		MLR	B1H0709
Molybdenum	14	10	ug/L	1.00	08/17/21 21:02	EPA 6010D		MLR	B1H0709

Sample Number

1080871-21

AF09079 WAP-23 collected on 08/03/21 12:36 **Sample Description**

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	12	10	ug/L	1.00	08/17/21 21:06	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/17/21 21:06	EPA 6010D		MLR	B1H0734



Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order:

1080871

Reported:

08/27/21 23:29

Sample Number

1080871-22

Sample Description

AF09077 WAP-21 collected on 08/03/21 11:30

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	2200	20	ug/L	1.00	08/17/21 21:10	EPA 6010D		MLR	B1H0734
Lithium	ND	10	ug/L	1.00	08/17/21 21:10	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/17/21 21:10	EPA 6010D		MLR	B1H0734

Sample Number

1080871-23

Sample Description

AF09075 WAP-19 collected on 08/03/21 16:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	4000	20	ug/L	1.00	08/19/21 16:09	EPA 6010D		MLR	B1H0734
Lithium	240	10	ug/L	1.00	08/19/21 16:09	EPA 6010D		MLR	B1H0734
Molybdenum	24	10	ug/L	1.00	08/19/21 16:09	EPA 6010D		MLR	B1H0734

Sample Number

1080871-24

Sample Description

AF09078 WAP-22 collected on 08/04/21 13:31

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	67	10	ug/L	1.00	08/17/21 18:55	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/17/21 18:55	EPA 6010D		MLR	B1H0734

Sample Number Sample Description 1080871-25

AF09091 WLF-A2-6 collected on 08/04/21 15:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:32	EPA 7470A		NAR	B1H0833
Boron	410	20	ug/L	1.00	08/19/21 15:57	EPA 6010D		MLR	B1H0734
Lithium	41	10	ug/L	1.00	08/19/21 15:57	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 15:57	EPA 6010D		MLR	B1H0734



Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported:

1080871 08/27/21 23:29

Sample Number

1080871-26

Sample Description

AF09092 WLF-A2-6 DUP collected on 08/04/21 15:07

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:35	EPA 7470A		NAR	B1H0833
Boron	410	20	ug/L	1.00	08/19/21 16:01	EPA 6010D		MLR	B1H0734
Lithium	39	10	ug/L	1.00	08/19/21 16:01	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 16:01	EPA 6010D		MLR	B1H0734

Sample Number

1080871-27

Sample Description

AF09074 WAP-18 collected on 08/04/21 12:16

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	3500	20	ug/L	1.00	08/19/21 16:13	EPA 6010D		MLR	B1H0734
Lithium	500	10	ug/L	1.00	08/19/21 16:13	EPA 6010D		MLR	B1H0734
Molybdenum	90	10	ug/L	1.00	08/19/21 16:13	EPA 6010D		MLR	B1H0734

Sample Number

1080871-28

Sample Description AF09084 WBW-A1-1 collected on 08/05/21 10:30

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:38	EPA 7470A		NAR	B1H0833
Boron	42	20	ug/L	1.00	08/19/21 16:05	EPA 6010D		MLR	B1H0734
Lithium	ND	10	ug/L	1.00	08/19/21 16:05	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 16:05	EPA 6010D		MLR	B1H0734

Sample Number

1080871-29

Sample Description AF09090 WLF-A1-5 collected on 08/05/21 11:38

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:41	EPA 7470A		NAR	B1H0833
Boron	2200	20	ug/L	1.00	08/19/21 16:17	EPA 6010D		MLR	B1H0734
Lithium	ND	10	ug/L	1.00	08/19/21 16:17	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 16:17	EPA 6010D		MLR	B1H0734



 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1080871

 Moncks Corner, SC 29461
 Reported:
 08/27/21 23:29

Total Metals **Quality Control Summary**

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1H0709 - EPA 3005Å										
Blank (B1H0709-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1H0709-BS1)										
Boron	490	15	ug/L	500		98	80-120			
Lithium	516	10	ug/L	500		103	80-120			
Molybdenum	470	10	ug/L	500		93	80-120			
Matrix Spike (B1H0709-MS1)	Source: 1080871-02									
Boron	1400	15	ug/L	500	970	84	75-125			
Lithium	484	10	ug/L	500	ND	97	75-125			
Molybdenum	500	10	ug/L	500	ND	100	75-125			
Matrix Spike (B1H0709-MS2)	Source: 1080871-10									
Boron	2200	15	ug/L	500	1700	100	75-125			
Lithium	547	10	ug/L	500	11	107	75-125			
Molybdenum	460	10	ug/L	500	ND	92	75-125			
Matrix Spike Dup (B1H0709-MSD1)	Source: 1080871-02									
Boron	1500	15	ug/L	500	970	102	75-125	6	20	
Lithium	512	10	ug/L	500	ND	102	75-125	6	20	
Molybdenum	460	10	ug/L	500	ND	91	75-125	10	20	
Matrix Spike Dup (B1H0709-MSD2)	Source: 1080871-10									
Boron	2200	15	ug/L	500	1700	112	75-125	3	20	
Lithium	547	10	ug/L	500	11,	107	75-125	0.03	20	
Molybdenum	460	10	ug/L	500	ND	92	75-125	0.003	20	
Post Spike (B1H0709-PS1)	Source: 1080871-02									
Boron	1.5		mg/L	0.500	ND	99	75-125			
Lithium	0.515		mg/L	0.500	ND	103	75-125			
Molybdenum	0.48		mg/L	0.500	ND	95	75-125			

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 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1080871

 Moncks Corner, SC 29461
 Reported:
 08/27/21 23:29

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0709 - EPA 3005A										
Post Spike (B1H0709-PS2)	Source: 1080871-1	0								
Boron	2.1		mg/L	0.500	ND	97	75-125			
Lithium	0.552		mg/L	0.500	ND	108	75-125			
Molybdenum	0.47		mg/L	0.500	ND	94	75-125			
Batch B1H0734 - EPA 3005A										
Blank (B1H0734-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1H0734-BS1)										
Boron	510	15	ug/L	500		101	80-120			
ithium	519	10	ug/L	500		104	80-120			
Molybdenum	490	10	ug/L	500		97	80-120			
Matrix Spike (B1H0734-MS1)	Source: 1080871-2	4								
Boron	4500	15	ug/L	500	4000	94	75-125			
Lithium	615	10	ug/L	500	67	110	75-125			
Molybdenum	460	10	ug/L	500	ND	91	75-125			
Matrix Spike Dup (B1H0734-MSD1)	Source: 1080871-2	4								
Boron	4700	15	ug/L	500	4000	139	75-125	5	20	S 5
Lithium	640	10	ug/L	500	67	114	75-125	4	20	
Molybdenum	470	10	ug/L	500	ND	94	75-125	3	20	
Post Spike (B1H0734-PS1)	Source: 1080871-2	4								
Boron	4.6		mg/L	0.500	ND	109	75-125			
Lithium	0.629		mg/L	0.500	ND	112	75-125			
Molybdenum	0.48		mg/L	0.500	ND	96	75-125			
Batch B1H0833 - EPA 7470A										
Blank (B1H0833-BLK1)										
Метситу	ND	0.20	ug/L							

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Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported:

1080871 08/27/21 23:29

Total Metals Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0833 - EPA 7470A										
LCS (B1H0833-BS1)										
Mercury	5.0	0.20	ug/L	5.00		99	80-120			
Matrix Spike (B1H0833-MS1)	Source: 1080871-01									
Mercury	4.2	0.20	ug/L	5.00	ND	83	75-125			
Matrix Spike (B1H0833-MS2)	Source: 1080871-02									
Mercury	5.0	0.20	ug/L	5.00	ND	101	75-125			
Matrix Spike Dup (B1H0833-MSD1)	Source: 1080871-01									
Mercury	4.2	0.20	ug/L	5.00	ND	83	75-125	0.2	20	
Matrix Spike Dup (B1H0833-MSD2)	Source: 1080871-02									
Mercury	5.0	0.20	ug/L	5.00	ND	100	75-125	0.9	20	
Post Spike (B1H0833-PS1)	Source: 1080871-01									
Mercury	3.2		ug/L	4.00	ND	81	80-120			
Post Spike (B1H0833-PS2)	Source: 1080871-02									
Mercury	3.8		ug/L	4.00	ND	95	80-120			



Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1080871 Moncks Corner, SC 29461 Reported: 08/27/21 23:29

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1H0709	1080871-01	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-02	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-03	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-04	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-05	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-06	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-07	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-08	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-09	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-10	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-11	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-12	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-13	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-14	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-15	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-16	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-17	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-18	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-19	08/16/2021 11:50	MTH	
EPA 3005A	B1H0709	1080871-20	08/16/2021 11:50	MTH	
EPA 3005A	B1H0734	1080871-21	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-22	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-23	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-24	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-25	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-26	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-27	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-28	08/17/2021 08:40	MTH	
EPA 3005A	B1H0734	1080871-29	08/17/2021 08:40	MTH	



Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461			Project: Work Order: Reported:	Ground Water 1080871 08/27/21 23:29	
EPA 7470A Mercury Digestion					
EPA 7470A	B1H0833	1080871-01	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-02	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-03	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-06	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-07	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-08	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-09	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-25	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-26	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-28	08/18/2021 1	1:33 NAR	
EPA 7470A	B1H0833	1080871-29	08/18/2021 1	1:33 NAR	



Santee Cooper Project: Ground Water
1 Riverwood Dr. Work Order: 1080871
Moncks Corner, SC 29461 Reported: 08/27/21 23:29

Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

S5 The raw sample concentration was greater than four times the spike concentration. The spike recovery was not evaluated against the

control limits.

1080871



10f3

Customer Email	/Report Recipi	Date Results Needed by:			Project/Task/Unit #:					Reru	Rerun request for any flagged Q						
LCWILLIA	@santeed	cooper.com		//			[2]	567	<u>/</u>	402.C	9.6¢]	J 365∞	Yes	No			
				•							•			£	Analysi	s Grou	ıp
Labworks ID #. (Internal use only)	Sample Location Description	osc811	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	• M • Ro • M • A	Comments ethod # eporting limit isc. sample info ny other notes		w	Ţ,	Mo	1
AF69085	WLF-AI-I	10-	8/5/21	1246	BRT/ BWM									Х	×	X	x
AF09056	WAP-7	102	8/10/21	1500	MDG/ BSB	ì								×	×	x	x
A=09076	WAP-20	-03	1	1236		-						· · · · · · · · · · · · · · · · · · ·		×	×	x	×
AF09081	WAP - 25	104		1332											×	×	
AF09082	WAP - 26	-05		1146											×	×	
AF09086	WLF-A1-2	ماهر	8/11/21	1335	MOG									×	×	х	×
A=09087	WLF-AI-3	101		1205										×	×	×	×
AF09088	WLF-A1 - 4	208		1107										×	×	×	X
AF09089	WLF-41-4	DUP 10th		1112										×	×	x	×
									ì					1			
Relinquished by:	Employee#	Date	Time		MAN 19d by:		<u>り</u> mployee		Date		'Time	Sample Receiving	g (Internal U	se On	ly)		
Agroun	35594	8/12/21	1500	AL H	Fre	11-	Miployee	"- -	Date		sine	TEMP (°C):_2		nitial	l:_ <i>///</i>		_
Relinquished by:	Employee#	Date	Time /	Receiv	red by:	E	mployee	#	Date	;	Time	Correct pH:	Yes' No	٠,			
FeJE7	7			Andred L	Mhos	1		8	1/3/2	4	0925	Preservative Lo	# :				
Relinquished by:	Employee#	. Date	Time /	Receiv	ed by:	Et	mployee	#	Date		Time			·:			
						.		.				Date/Time/init-f		ive:	• • •	:	٠.
□ MB □ Ag □ Ci □ Al □ Fe □ As □ Ci □ Bs □ Li □ Bs □ Mi □ Cs □ Ms □ Co □ Ni □ Cr □ Pb		OT C	S TROA L-N	MIS DBTEX Napthale DTHM/H OVOC OIL & Gr DE Coil DTotal Co DPH Dissolve CRad 226 Rad 228	ne AAA ifform d'As d Fe			sun(d w) M C c) c) dible Me dip woistur files files files	M B S(04) S(04) S		Coa Untimate	Elventrice Description of the control of the contro	ish onto toon al ontysis ofstore	ON AMERICAN MENTERS OF THE SECOND SEC	Office of the control	Marian Ma Marian Marian Marian Marian Marian Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma	\$ \$
			Fed	EX	81.	53	6	79 l	5	39	7 4	MA13/2/				. 7	,



santee cooper

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

Date Results Needed by: Customer Email/Report Recipient: Project/Task/Unit #: Rerun request for any flagged QC LCWILLIA 121567 1 JM02.09.601 36200 @santeecooper.com (Yes) No Analysis Group Labworks ID# Sample Location/ Comments Matrix(see below) **Collection Time** (Internal use Description Total # of container Method # Collecto only) Reporting limit Q Grab (G) or Composite (C) Bottle type: Misc. sample info Any other notes J \mathfrak{D} ADG Х G 2 -10 7/29/21 GW 4F09052 WAP-3 1235 BRI AF09071 1238 Х Х WAP-16 \mathcal{N} 1129 Х AF 09064 81-4AW 1/2 X AF09062 WAP-12 1354 ~14 1359 X WAP-12 DUP AF09063 MDE X X 1250 AF09080 8/2/21 WAP - 24 BRI -16 X 1134 AF09059 WAP-10 × X X WAP-10 DUP AF09060 1139 13 Х Х х WAP -9 1337 AF09058 Х Х WAP-17 1512 AF 69072 Sample Receiving (Internal Use Only) Relinquished by: Employee# Date ... Time Received by: Employee # Date Time. TEMP (°C): 11.4 Initial: Syrgroun 35594 8/12/21 Correct pH: Yes Relinquished by: Employee# Date Date : Time Time Received by: Employee # Preservative Lot#: 0925 Relinquished by: Employee# Date Time Employee # Date Time Date/Time/Init-for preservative: Coal Coal □ METALS (all.) **Nutrients** MISC. **Gypsum** OI. Flyash Ultimate □Äg □ Cu □ Sb LUIS TICILI SILI TOMO TOT □ BTEX Wallboard □ Fe □ Se □.Nanthalene Cypsum(dll) PDQC □ THM/HAA (ব্যাক্র □ As $\Box K$ □ Sn TIBARO4 * ©%Carbon □ VOC MW 5 © Minerall ΠB 🛛 Li □ Sr □ Oil & Grease DARTARN G-110 CF. Analysis □ E. Coli -D Ba □ Mg 🛮 Ti 🧸 fi ioniments ି ପୋ ii Sieve Particion. □ Total Coliform O Soldiale Ments WNO2 ΠÎ ©%Mosure ්යම්යෝධ මෙක්මය්ව .□ Be ☐ Mn □ pH ". Purity (CASO4) TIB: Dissolved As @%Moisture □ Ca ŪV 🛚 Mo Mostle well ☐ Dissolved Fe EON B **NPDES** (Caccordina) ☐ Rad 226 □Ćd □ Na □ Zn 0 804 DONA Gresse ☐ Rad 228 ☐ Finen O Co □ Ni □ Hg (D) (A)(S) □ PCB m Lil Paridello Stree COMER ҈ РЬ □ CrVI □ Cr

3.73 Zof 3

1080871

Santee cooper

Customer Email/Report Recipient: Date Results Needed by: Project/Task/Unit #: Rerun request for any flagged QC 121567 / JM02.09. GØI / 36500 LCWILLIA @santeecooper.com (Yes No Analysis Group Labworks ID# Sample Location/ Comments Date (Internal use Description **Collection Time** Collector Total # of containers Method # only) Reporting limit ş Bottle type: (G/Plastic-P) 6 o (G) or posite Preservati below) Misc. sample info Any other notes Σ Grab (Ţ m MDS P 2 Х -20 8/2/21 1517 G GW Χ AF09073 WAP-17 DUP BRI -2 Х Х 8/3/21 AF09079 WAP - 23 1236 /ws -22 X Х WA-P-21 1130 X AF09077 -13 X X 1627 AF09075 WAP-19 Х Х 8/4/21 X 1331 WAP-22 AF69078 Х 1502 X X AF09091 WLF - A2-6 26 X X AF09092 WLF-A2-6 DUP 1507 X Х Х 1216 χ WA-7-18 AF09074 BRT Х Х X Х MRM-YI-I 8/5/21 480POTA 1030 BWN Х Х WLF- A1-5 AF09090 Sample Receiving (Internal Use Only) Time Received by: Time Relinguished by: Date Date Employee# Employee # TEMP (°C): 71.4 Initial: MA od E 35594 Sogroun 8/12/21 1500 Correct pH: Yes No Relinquished by: Employee# Date Time Received by: Employee:# Date Time Preservative Lot#: o 97S Relinquished by: Employee# Date Time Received by: Employee # Date Time Date/Time/Init for preservative: ©oal ⊡ Últimáte ☐ METALS (all) Nutrilents MISC. **Gypsum** Oil - Flyash □ Ag Ü₀Cù □.Sb D BTEX: DraudlieW E O. Moisture 19 (O. Ash. TOTAL SOUND COME TITOC . Ē Amnonia . □ Se □ A1 □Fe Cypsun(dii babay) Company ☐ Napthalene E'DOC GILOI Color Addition THM/HAA Ů.As □ Sn LITP/TIPOA 2% Carbon' □ VOC ☐ Sulfür ☐ BTÜS ☐ Volatile Matter ☐ GHN LINE N. C AM (A Mineral $\Box \mathbf{B}$ □'Li' ☐ Sr □ Oil & Grease OLTON STORE D TOC OF Analysis (Fel) Masedhoù Gasas □ E. Coli 🛛 Ba □.Mg □ Ti . - : 'U Total metals ne ☐ Total Coliform : Stabilite Metals □ T1 TINO2 டஇரை □ Be □ Mn Party (Cesoa) m% Moisture □pH Other Tests:
OXRESCAND
OHGI
Fineness ☐ Dissolved As (Interprine □ Ca ΠÝ ⊡́Мо LETT-FOR ☐ Dissolved Fe <u>aguiles</u> NPDES □ Zn □ Cd □ Na □ Rad 226 [_804 201&G220 10(40) T Rad 228 **Chilorides** □ Ćo □ Hg ΠNi DPCB . Bartole Size D Particulate Matter **ETSS** COPUR □ Cr □ CrVI



Revised February 2018

Sample Receipt Verification

Client: Santee Cooper	Date Received:	08	/13/2	021	Work Order: 1080871
Carrier Name: Client FedEx UPS Tracking Number:	S US I	Mail		Cou	urier Field Services Other:
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Х			Damaged Leaking Other:
Custody seals intact?				χX	
COC included with samples?		Х			
COC signed when relinquished and received?		Х			
Sample bottles intact?		Х			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Х			
Date / time on COC agree with label on bottle(s)?		Х			
Number of bottles on COC agrees with number of bottles	received?	Х			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Х			
VOA vials free of headspace (<6mm bubble)?				х	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer - SN	· 97050067	Х			Ice Cold Packs Dry Ice None
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in Note: Samples for O&G and VOA analysis – preservation checked	the lab.	Х			
Samples dechlorinated for parameters requiring chlorine the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, Vanalysis.	removal at			х	
If in-house	preservation	used	— ге	cord	Lot#
HCL	H ₃ P				
H ₂ SO ₄	NaC)H			
HNO ₃	Oth	ет			
Comments:					
Wood and conformation to the terms of the ter	40 V			Ī.	
Were non-conformance issues noted at sample recei Non-Conformance issue other than noted above:	pt? Yes	or		CoV	
TVOH-COMOTHERICE ISSUE OTHER WALL HOVEL					
Davised February 2010				Ca	ompleted by: MAW

Completed by:___











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843,556,8171 F 843,766,1178

gel.com

March 19, 2021

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

Re: ABS Lab Analytical Work Order: 535320

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 19, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 535320 GEL Work Order: 535320

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
- 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.

	Julie	Robinson	
Reviewed by			

Page 2 of 18 SDG: 535320

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

Certificate of Analysis

Report Date: March 19, 2021

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: AE96403 Project: SOOP00119 Sample ID: 535320001 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 16-FEB-21 11:33
Receive Date: 19-FEB-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Gas Flow Proportio	nal Counting												
GFPC, Ra228, Liquid "A	As Received"												
Radium-228	\mathbf{U}	1.24	+/-1.16	1.91	3.00	pCi/L			LXB3	03/03/21	0619	2094595	1
Radium-226+Radium-22	28 Calculation	n "See Pa	rent Products"										
Radium-226+228 Sum		1.54	+/-1.21			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	id "As Receiv	ved"											
Radiun-226	U	0.298	+/-0.323	0.523	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 81.9 (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

Page 3 of 18 SDG: 535320

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

Certificate of Analysis

Report Date: March 19, 2021

DF Analyst Date Time Batch Method

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Result Uncertainty

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Client Sample ID: AE96404 Project: SOOP00119 Sample ID: 535320002 Client ID: SOOP001

MDC

Matrix: Ground Water
Collect Date: 16-FEB-21 14:25
Receive Date: 19-FEB-21
Collector: Client

Qualifier

1 GIGILICICI	Zuminer.	100an C	neerming	1111	142	Cilits	 	2 Min 3 50	Litte	1 11110 1311	ich mada
Rad Gas Flow Proports	ional Counting										
GFPC, Ra228, Liquid	"As Received"										
Radiun-228	U	1.83	+/-1.32	2.10	3.00	pCi/L		LXB3 (03/03/21	0619 2094	1595 1
Radium-226+Radium-	228 Calculation	n "See Pare	nt Products"								
Radium-226+228 Sum		2.18	+/-1.37			pCi/L	1	AEA (03/16/21	0416 2094	1594 2
Rad Radium-226											
Lucas Cell, Ra226, Lic	juid "As Receiv	ved"									
Radium-226	U	0.355	+/-0.371	0.604	1.00	pCi/L		MXH8 (03/12/21	0841 2094	1556 3

RI.

Units

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 85 (15%-125%)

Notes:

Parameter

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 19, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96405 SOOP00119 Sample ID: 535320003 Client ID: SOOP001

Matrix: Ground Water Collect Date: 16-FEB-21 15:30 Receive Date: 19-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Gas Flow Propor	tional Counting												
GFPC, Ra228, Liquid	l "As Received"												
Radium-228	U	0.550	+/-0.938	1.64	3.00	pCi/L			LXB3	03/03/21	0619	2094595	1
Radium-226+Radium	-228 Calculatio	n "See Pa	arent Products"										
Radium-226+228 Sum		0.877	+/-1.00			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, La	iquid "As Recei	ved"											
Radium-226	U	0.327	+/-0.358	0.588	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

83.4 (15%-125%) Barinm-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Certificate of Analysis

Report Date: March 19, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96379 SOOP00119 Sample ID: 535320004 Client ID: SOOP001

Matrix: Ground Water Collect Date: 15-FEB-21 13:37 Receive Date: 19-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Gas Flow Proportio	nal Counting												
GFPC, Ra228, Liquid "A	As Received"												
Radium-228	\mathbf{U}	1.34	+/-1.01	1.58	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-22	28 Calculation	n "See Pa	rent Products"										
Radium-226+228 Sum		1.76	+/-1.06			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	id "As Recei	ved"											
Radium-226	\mathbf{U}	0.422	+/-0.332	0.450	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Test Result Surrogate/Tracer Recovery Nominal Recovery% Acceptable Limits

85.1 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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 19, 2021

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:
 AE96380
 Project:
 SOOP00119

 Sample ID:
 535320005
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 15-FEB-21 14:40
Receive Date: 19-FEB-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Gas Flow Proportio	nal Counting												
GFPC, Ra228, Liquid "A	As Received"												
Radium-228		3.43	+/-1.39	1.92	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"										
Radium-226+228 Sum		8.50	+/-1.77			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	id "As Receiv	ved"											
Radium-226		5.07	+/-1.09	0.817	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 85.9 (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 19, 2021

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:
 AE96412
 Project:
 SOOP00119

 Sample ID:
 535320006
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 15-FEB-21 12:21
Receive Date: 19-FEB-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Gas Flow Proportio	nal Counting												
GFPC, Ra228, Liquid "A	As Received"												
Radium-228	\mathbf{U}	1.24	+/-0.858	1.30	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-22	28 Calculation	n "See Pa	rent Products"										
Radium-226+228 Sum		1.69	+/-0.929			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	id "As Receiv	ved"											
Radium-226	U	0.453	+/-0.356	0.482	1.00	pCi/L			MXH8	03/12/21	0915	2094556	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 84.5 (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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Certificate of Analysis

Report Date: March 19, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96388 SOOP00119 Sample ID: 535320007 Client ID: SOOP001

Matrix: Ground Water Collect Date: 17-FEB-21 13:57 Receive Date: 19-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ar	alyst Date	Time Batch	Method
Rad Gas Flow Proport	ional Counting										
GFPC, Ra228, Liquid	"As Received"										
Radium-228		2.96	+/-1.42	2.12	3.00	pCi/L		LX	B3 03/03/21	0620 2094595	1
Radium-226+Radium-	228 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		5.83	+/-1.59			pCi/L		1 AE	A 03/16/21	0416 2094594	2
Rad Radium-226											
Lucas Cell, Ra226, Li	quid "As Recei	ved"									
Radium-226	_	2.88	+/-0.701	0.492	1.00	pCi/L		M	H8 03/12/21	0915 2094556	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

83.3 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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 19, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96389 SOOP00119 Sample ID: 535320008 Client ID: SOOP001

Matrix: Ground Water Collect Date: 17-FEB-21 14:02 Receive Date: 19-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Gas Flow Proport	ional Counting												
GFPC, Ra228, Liquid	"As Received"												
Radium-228	\mathbf{U}	1.53	+/-1.24	1.99	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-	228 Calculation	n "See Pa	arent Products"										
Radium-226+228 Sum		3.16	+/-1.37			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Lic	quid "As Recei	ved"											
Radium-226		1.63	+/-0 584	0.600	1.00	pCi/L			MXH8	03/12/21	0915	2094556	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

82.6 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 10 of 18 SDG: 535320

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

Certificate of Analysis

Report Date: March 19, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96406 SOOP00119 Sample ID: 535320009 Client ID: SOOP001

Matrix: Ground Water Collect Date: 17-FEB-21 12:35 Receive Date: 19-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Gas Flow Proport	ional Counting												
GFPC, Ra228, Liquid	"As Received"												
Radium-228	\mathbf{U}	1.48	+/-1.05	1.63	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-	228 Calculation	n "See Pa	arent Products"										
Radium-226+228 Sum		2.13	+/-1.11			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Lie	quid "As Recei	ved"											
Radium-226		0.646	+/-0 377	0.381	1.00	pCi/L			MXH8	03/12/21	0915	2094556	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

85.3 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

QC Summary

Report Date: March 19, 2021

Page 1 of 2

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 535320

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2094595									
QC1204757495 535320004 DUP									
Radium-228	U Uncertainty	1.34 +/-1.01	U	0.520 +/-0.847	pCi/L	N/A		N/A LXB3	03/03/21 06:19
	Oncertainty	₹/-1.01		₹/-0.647					
QC1204757496 LC8	51.5				O' 7		110	(750(1050))	02/02/21 07 10
Radium-228	54.7 Uncertainty			61.6 +/-3.92	pCi/L		113	(75%-125%)	03/03/21 06:19
	Oncertainty			17-3.72					
QC1204757494 MB				1.50	C: A				02/02/21 07:10
Radium-228	Uncertainty			1.50 +/-0.829	pCi/L				03/03/21 06:19
	5 11-51 (01111)								
Rad Ra-226 Batch 2094556									
QC1204757382 535320001 DUP	**	0.200		0.575	G. A			(00/ 1000/) 1 577770	00/10/01 00 50
Radium-226	U Uncertainty	0.298 +/-0.323		0.575 +/-0.378	pCi/L	63.6		(0% - 100%) MXH8	03/12/21 09:53
	Oncertainty	· · · · · · · · · · · · · · · · · · ·		7, 0.575					
QC1204757384 LCS Radium-226	27.0			26.0	C: /T		00.1	(759/ 1050/)	02/12/21 00:52
Radium-220	Uncertainty			26.8 +/-2.12	pCi/L		99.1	(75%-125%)	03/12/21 09:53
QC1204757381 MB Radium-226				0.778	pCi/L				03/12/21 09:52
Radium-220	Uncertainty			+/-0.479	pest				03/12/21 09.32
	,								
QC1204757383 535320001 MS Radium-226	27.0 U	0.298		24.9	pCi/L		92.2	(75%-125%)	03/12/21 09:53
radian 220	Uncertainty	+/-0.323		+/-2.01	реви		12.2	(1070-12070)	GUITATET G7.03

Notes:

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

The Qualifiers in this report are defined as follows:

** Analyte is a Tracer compound

< Result is less than value reported</p>

> Result is greater than value reported

BD Results are either below the MDC or tracer recovery is low

FA Failed analysis.

Page 12 of 18 SDG: 535320

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

QC Summary

Workorder: 535320 Parmname NOM Sample Qual QC Units RPD% REC% Range AnIst Date Time

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

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.

Page 13 of 18 SDG: 535320

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 535320

Product: GFPC, Ra228, Liquid

<u>Analytical Method:</u> EPA 904.0/SW846 9320 Modified <u>Analytical Procedure:</u> GL-RAD-A-063 REV# 5

Analytical Batch: 2094595

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

GEL Sample ID#	Client Sample Identification
535320001	AE96403
535320002	AE96404
535320003	AE96405
535320004	AE96379
535320005	AE96380
535320006	AE96412
535320007	AE96388
535320008	AE96389
535320009	AE96406
1204757494	Method Blank (MB)
1204757495	535320004(AE96379) Sample Duplicate (DUP)
1204757496	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

Method Blank Criteria

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value	
1204757494 (MB)	Radium-228	Result: $1.50 \text{ pCi/L} > \text{MDA}$: $1.14 \text{ pCi/L} <= \text{RDL}$: 3.00 pCi/L	

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2094556

Page 14 of 18 SDG: 535320

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

GEL Sample ID#	Client Sample Identification
535320001	AE96403
535320002	AE96404
535320003	AE96405
535320004	AE96379
535320005	AE96380
535320006	AE96412
535320007	AE96388
535320008	AE96389
535320009	AE96406
1204757381	Method Blank (MB)
1204757382	535320001(AE96403) Sample Duplicate (DUP)
1204757383	535320001(AE96403) Matrix Spike (MS)
1204757384	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

Method Blank Criteria

The blank result (See Below) is greater than the MDC but less than the required detection limit.

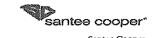
Sample	Analyte	Value
1204757381 (MB)	Radium-226	Result: 0.778 pCi/L > MDA: 0.662 pCi/L <= RDL: 1.00 pCi/L

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.

Page 15 of 18 SDG: 535320

535320



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

121 St. 170 Zt. 170	Customer Email/Report Recipient:				Date F	-	Pr	oject/	Task/	Rerun request for any flagged QC									
Labworks ID # Comments Comm	LOWILLIA	······	@santeec	ooper.com		<i> </i>			121	567	<u>/</u>	102.0	Yes No						
Description Description																A	nalysi	s Grou	1D
AE 96 3 P	(Internal use			n /	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	• Re • M • Aı	ethod# eporting limit isc. sample info			1	RAD	
AE 96 3 90 WAP - 20	AE 96403	h	1AP-18		2/16/21	1133	MDG	2	P	G	ew	2				X	Х	*	
AE 76 37-7	AE96404	W	1AP-19			1425)				j			
AE 9638	AE96405	W	VAP-20			1530													
AE 96412 WBW -	AE96379	N	1AP-1		2/15/21	1337	MDE												
Relinquished by: Employees Date Time Received by: Employees Date Time TEMP (°C): Initial:	AE 96380	и	rAP-2		1	1440	1							·					
Relinquished by: Employee# Date Time Received by: Employee# Date Time Sample Receiving (Internal Use Only)	KE 96412	и	1BW -		2/15/21	1221	1	L		<u> </u>				****		<u></u>			
Relinquished by: Employees Date Time Received by: Employee Date Time Sample Receiving (Internal Use Only) TEMP (°C): Initial: Second by: Employee Date Time Sample Receiving (Internal Use Only) TEMP (°C): Initial: Second by: Employee Date Time Date/Time/Init for preservative: Date/Time/Init for preservative: Date/Time/Init for preservative: Date/Time/Init for preservative: Second by:	AE96388	W,	AP-10		2/17/21	1357	BSB BSB	2									1		
Relinquished by: Employee# Date Time Received by: Employee# Date Time Conly TEMP (°C): Initial: Correct pH: Yes No Preservative Lot#: No Preservative Lot#: Lot	AE96389	W,	AP -10 DL	1P		1402													
Relinquished by: Employee# Date time Received by: Employee # Date time Preservative Lot#: Correct pH: Yes No Preservative Lot#: Date/Time/Init for preservative: Date/Time/Init for preser	AE 96406	W	47-21		1	1235	1	1	1	1		1				<u> </u>]		
Relinquished by: Employee# Date time Received by: Employee # Date time Preservative Lot#: Correct pH: Yes No Preservative Lot#: Date/Time/Init for preservative: Date/Time/Init for preser																			
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Relinquished by: Employee# Date Time Received by: Employee # Date Time Preservative Lot#: METALS (all	Symoan		35594	2/19/21	of Per	.011	0		GEL		2/19/	21	⇔ ≥4			£1111141	•		-
Relinquished by: Employee# Date Time Received by: Employee# Date Time Date/Time/Init for preservative:	Relinquished L	y;	Employee#	Date	Mme	Receiv	ed by:	E	mployee	#	Date		Time						
Refinquished by: Employee# Date Time Received by: Employee # Date Time Date/Time/Init for preservative: METALS (all)	Mal		611	200	1120	HUND	Bala	ha. P	iFl		lak	ο <i>l</i>	11:2	Preservat	ive Lot#:				
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□ Co □ Ni □ Hg □ PCB □ Particle Size □ Particulate Matter □ As □ TX	□ C o □	Ni	□Hg								te:			∕latter □	As .	- 1	X.		
□ Cr □ Pb □ CrVI □ TSS GOFER	D Ct D	Pb	☐ CrVI			was e. P.								ū	188	GO	FFR		

(A Rist Laboratorios U.C.			TO A STATE OF THE
图部 Laboratories LLC			SAMPLE RECEIPT & REVIEW FORM
Client:			SDC/AR/COCAVork Order 3373
Received By: Tye			Date Received: Circle Applicable: Courier Other
teat read and a			FedEx Express FedEx Graund UPS Field Services Courier Other
Carrier and Trucking Number			
	T _n		"If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Goup for further investigation.
Suspected Hazard Information	Zi Zi	٤	
		1	/ Chrand Class Shipped: UN#: / If UN2910, Is the Radioactive Shipment Survey Compliant? Yes No
A)Shipped as a DOT Hazardous?	_	V	
3) Did the client designate the samples are to be		V	COC notation or rullioaztive stickers on containers equal client designation.
ectived as radioactive?	┼	-	CPM/mR/Hr
2) Did the RSO classify the samples as		V	Maximum Net Counts Observed* (Observed Counts - Area Background Counts):CPM / mR/Hr Clussified as: Rad 1 Rad 2 Rad 3
adioamive?	┨—	_	
Did the client designate samples are hazardous!		V	COC notation or hazard labels on containers equal client designation.
N was the ment of early state and little as a contract the state of	T		If D or E is yes, select Hazards below. PCR's Flanguable Foreign Soil RCRA Asbestos Beryllium Other.
E) Did the RSO identify possible hazards?	_	V	PCB's Flantinable Foreign Soil RCRA Asbestos Beryllium Other:
Sample Receipt Criteria	Z GS	X	Comments/Qualifiers (Required for Non-Conforming Items)
Shioning containers received intact and	1	1	Circle Appăcable: Svals broken Damaged container Leaking container Other (describe)
1 scaled?	\underline{V}	烫	
2 Chain of custody documents included	V		Circle Applicable: Client contacted and provided COC COC created upon receipt
with shipment?	-	E CA	Breservation Method: Wet fee fee Packs Dry ice None Other:
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*] .	"all temperatures are recorded in Colsius TEMP:
Duity check performed and passed on IR	1.		Temperature Device Serial #: 183-19
4 temperature gun?	V	×	Secondary Temperature Device Serial # ((f Applicable):
5 Sample containers intact and sealed?	1/		Circle Applicable: Scals broken Daniaged container Leaking container Other (describe)
	<u> </u>	É	Sample 10's and Containers Affected:
Samples requiring chemical preservation at proper off?	V		(f Preservation added, Lut#;
	-	237	If Yes, are Encores or Soil (its present for solids? Yes_No_NA_(If yes, take to VOA Freezer):
7 Do any samples require Volatile		15	Do liquid VOA vials contain acid preservation? Yes No NA (If unknown, select No)
Analysis?			Are liquid VOA vials free of headspace? YesNoNA Sample ID's and containers affected:
	<u> </u>		
8 Samples received within holding time?	/		(D's end tests affected:
Sample ID's on COC match ID's on	2	1	1D's and containers affected:
boules?	/	Ť	
Date & time on COC match date & time			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
on bottles?	V	_	
Number of containers received match number indicated on COC?	1	4	Circle Applicable: No container count on COC Other (describe)
Age temple startainest identifiable as	-		. /
GEL provided by use of GEL labels?		1	ν
COC form is properly signed in relinquished/received sections?	$ \nu $		Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):	1	Jirk's	
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List of current GEL Certifications as of 19 March 2021

State Alabama	Certification 42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kausas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019–165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	
Sanitation Districts of L	10120002 9255651
South Carolina Chemistry	10120001
	TN 02934
Tennessee	
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122020-34
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



a member of The GEL Group INC



PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843,556,8171 F 843,766,1178

gel.com

March 26, 2021

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

Re: ABS Lab Analytical Work Order: 536093

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 26, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 536093 GEL Work Order: 536093

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
- 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.

	Inlie	Robinson	
Reviewed by			

Page 2 of 13 SDG: 536093

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

Certificate of Analysis

Report Date: March 26, 2021

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:
 AE96385
 Project:
 SOOP00119

 Sample ID:
 536093001
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 24-FEB-21 11:02
Receive Date: 26-FEB-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Gas Flow Proportio	nal Counting												
GFPC, Ra228, Liquid "A	As Received"												
Radium-228	\mathbf{U}	1.01	+/-0.828	1.31	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-22	28 Calculation	n "See Pa	rent Products"										
Radium-226+228 Sum		1.66	+/-0.938			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	id "As Receiv	ved"											
Radium-226		0.647	+/-0.440	0.621	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88.5 (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

Page 3 of 13 SDG: 536093

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

Certificate of Analysis

Report Date: March 26, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96381 SOOP00119 Sample ID: 536093002 Client ID: SOOP001

Matrix: Ground Water Collect Date: 24-FEB-21 13:18 Receive Date: 26-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Gas Flow Proportio	nal Counting												
GFPC, Ra228, Liquid "A	As Received"												
Radium-228	\mathbf{U}	-0.123	+/-0.815	1.57	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"										
Radium-226+228 Sum		1.47	+/-0.999			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	id "As Recei	ved"											
Radium-226		1.47	+/-0.578	0.661	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Test Result Surrogate/Tracer Recovery Nominal Recovery% Acceptable Limits

90.8 (15%-125%) Barinm-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 4 of 13 SDG: 536093

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

Certificate of Analysis

Report Date: March 26, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96387 SOOP00119 Sample ID: 536093003 Client ID: SOOP001

Matrix: Ground Water Collect Date: 23-FEB-21 12:49 Receive Date: 26-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Gas Flow Propo	rtional Counting												
GFPC, Ra228, Liqui	d "As Received"												
Radium-228		2.59	+/-1.57	2.45	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.65	+/-1.63			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, I	iquid "As Recei	ved"											
Radium-226	_	1.07	+/-0.422	0.364	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

81.8 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 5 of 13 SDG: 536093

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

Certificate of Analysis

Report Date: March 26, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96382 SOOP00119 Sample ID: 536093004 Client ID: SOOP001

Matrix: Ground Water Collect Date: 23-FEB-21 14:28 Receive Date: 26-FEB-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "A	As Received"												
Radium-228	\mathbf{U}	0.524	+/-0.903	1.58	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.97	+/-1.03			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.45	+/-0.495	0.421	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Test Result Surrogate/Tracer Recovery Nominal Recovery% Acceptable Limits

85.2 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 6 of 13 SDG: 536093

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

QC Summary

Report Date: March 26, 2021

Page 1 of 2

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 536093

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2097455									
QC1204762520 536093004 DUP Radium-228	U	0.524	U	0.739	pCi/L	N/A		N/A LXB3	03/23/21 06:46
	Uncertainty	+/-0.903		+/-0.982					
QC1204762521 LC8 Radium-228	54.3			46.4	pCi/L		85.4	(75%-125%)	03/23/21 06:46
	Uncertainty			+/-3.39	r			(12112221)	
QC1204762519 MB			**		~				
Radium-228	Uncertainty		U	1.67 +/-1.34	pCi/L				03/23/21 06:46
Rad Ra-226 Batch 2097342									
QC1204762172 536093001 DUP Radium-226		0.647		0.747	pCi/L	14.4		(0% - 100%) MXH8	03/04/21 09:12
Address 220	Uncertainty	+/-0.440		+/-0.426	Port	11		(0,4 100.0) 111110	03/ 0 121 03/12
QC1204762176 LCS								(=== ()	
Radium-226	27.0 Uncertainty			26.3 +/-2.38	pCi/L		97.2	(75%-125%)	03/04/21 09:12
QC1204762171 MB									
Radium-226	Uncertainty		U	0.222 +/-0.399	pCi/L				03/04/21 09:12
QC1204762173 536093001 MS									
Radium-226	135 Uncertainty	0.647 +/-0.440		138 +/-10.3	pCi/L		102	(75%-125%)	03/04/21 09:12

Notes:

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

The Qualifiers in this report are defined as follows:

** Analyte is a Tracer compound

< Result is less than value reported</p>

> Result is greater than value reported

BD Results are either below the MDC or tracer recovery is low

FA Failed analysis.

Page 7 of 13 SDG: 536093

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

QC Summary

Workorder: 536093

Page 2 of 2

Parmname

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

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

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.

Page 8 of 13 SDG: 536093

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 536093

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2097455

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

GEL Sample ID#	Client Sample Identification
536093001	AE96385
536093002	AE96381
536093003	AE96387
536093004	AE96382
1204762519	Method Blank (MB)
1204762520	536093004(AE96382) Sample Duplicate (DUP)
1204762521	Laboratory Control Sample (LCS)

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: Lucas Cell, Ra226, Liquid **Analytical Method:** EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2097342

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

\mathbf{G}	EL Sample ID#	Client Sample Identification
53	36093001	AE96385
53	36093002	AE96381
53	36093003	AE96387
53	36093004	AE96382
12	204762171	Method Blank (MB)
12	204762172	536093001(AE96385) Sample Duplicate (DUP)
12	204762173	536093001(AE96385) Matrix Spike (MS)
12	204762176	Laboratory Control Sample (LCS)

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

Page 9 of 13 SDG: 536093

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 and matrix spike duplicate, 1204762173 (AE96385MS), aliquots were 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.

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536093

Chain of Custody



Santec Cooper One Riverwood Drive Moneks Corner, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

Custom	Customer Email/Report Recipient:		Date R	te Results Needed by: Project/Task/Unit #:						Rerun request for any flagged QC									
LCW	LLIA	@:	santeed	cooper.com		<i></i>			1215	67	JJM	2.09	, GØI	<u> </u>	<u>></u> Yes	No			
																A	nalysis	Group	
Labwor (Interna only)	3	Sample Descrip	Location	n/	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass- G/Plastic-p)	Grab (G) or Composite (Cl	Matrix(see below)	Preservative (see below)	• Rej	Comn thod # sorting limi so: sample i y other note	t nfo	RAD 226	RAD 228	TOTAL KAD CALC	
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AE96	881	WAP	- ខ		1	1318	1	2	1	L	1	1					×	х	
AE963	87	WAP	-9		2/23/21	1249	DEW	2									×	х	
AE963	82	WAP	-4		<u></u>	1428	1	2						×	Х	X			
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Relinq	uished by:	Em	ployee#	Date	Time	Receiv	ed by:	E	mployee	#	Date		Time		ative Lot#:				
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□As	ΩК		□ Sn	DO		☐ Napthale ☐ THM/H			Gyp belo	sum(a w)	Ш		□ % Mois □ Ash	ture	D LOI		annoisi olar	ure	
□ B		Breeze M. Carlo	□ Sr	UNH		□ VOC			ΠAI	M			□ Sulfur		☐ % Carbon ☐ Mineral		eidny	Strength	
			30,500,000	— ⊕ CF		□ Oil & G □ E. Coli	rease		UTO	iC tal meti	.i.		□ BTUs		Analysis		riceine T	S) (Calgin	
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□ Cd	∏ □ N	a	□ Zn	E SO:		☐ Rad 226 ☐ Rad 228			□pH				HGI Fineness		□ Oil & Grease		\s.Cd. gi	Er Ni Pb	
□ C 6	□ N		□ Hg			☐ Rad 228				lorides ticle Si			rmeness Particulate M	atter	□As	1	X.		
□ Cr	□ Pt	,	□ CrVI						□ Sulfur						O TSS	GO	FFR		
	COMPANY OF THE STATE OF THE STA																		

Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SOCIO	1 4 7	F-40	SDG/AR/COC/Work Order: 536093								
Received By: 3 ALYBUL	IN	<u>C,</u>	Date Received: FEBUARY 26, 2021								
Carrier and Tracking Number			Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other ()								
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 DXXT Hazardous?		_	Plazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? YesNo								
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):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. If D or E is yes, select Hazards below.								
E) Dil the RSO identify possible hazards?	<u></u>		PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:								
Sample Receipt Criteria	Y. C.	1. N. W.	Comments/Qualifiers (Tegules Ser Non-Conforming Items)								
Shipping containers received intact and spaled?	/		Circle Applicable: Seals broken Daniaged container - Ceaking container Other (describe)								
2 Chain of custody documents included with shipment?	/		Circle Applicable: Client contested and provided CCC COC scented upon receipt Preservation Method: Wet Ice Tee Packs Dry ice None Other.								
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	1		*all temperatures are recorded in Celsius TEMP:								
Daily check performed and passed on IR temperature gun?	/		Temperature Device Serial #:								
5 Sample containers intact and scaled?	1		Circle Applicable: Seals broker: Damaged container Leaking container Other (describe)								
6 Samples requiring chemical preservation at proper pH?	1	p-co-									
7 Do any samples require Volatile Analysis?			Do liquid VOA vials contain acid preservation? YesNoNA (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:								
Sample ID's on COC match ID's on bottles?	/		ID's and containers affected:								
Date & time on COC match date & time on bottles?	/		Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)								
Number of containers received match number indicated on COC?	/		Circle Applicable: No container count on COC Other (describe)								
Are sample containers identifiable as GEL provided by use of GEL labels? COC form is properly signed in			Circle Applicable: Not relinquished Other (describe)								
13 relinquished/received sections? Comments (Use Communition Form if needed):	1										
·											
PM (or PA	AA) n	view	: Initials NRIS Date 311 21 Page of								

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 26 March 2021

State Alabama	Certification 42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kausas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC002 SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019–165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	
	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001 TN 02024
Tennessee	TN 02934
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122020-34
Vermont	VT87156
Virginia NELAP	460202
Washington	C780











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843,556,8171 F 843,766,1178

gel.com

April 01, 2021

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

Re: ABS Lab Analytical Work Order: 536991

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 05, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 536991 GEL Work Order: 536991

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
- 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.

	Inlie	Robinson	
Reviewed by			

Page 2 of 27 SDG: 536991

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

Certificate of Analysis

Report Date:

April 1, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96394 SOOP00119 Sample ID: 536991001 Client ID: SOOP001

Matrix: Ground Water Collect Date: 25-FEB-21 11:10 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proport	ional Counting										
GFPC, Ra228, Liquid	"As Received"										
Radium-228	\mathbf{U}	1.40	+/-1.44	2.40	3.00	pCi/L		LXB3	03/23/21	0645 209745	5 1
Radium-226+Radium-	228 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		2.38	+/-1.47			pCi/L		1 GXR3	04/01/21	1330 210299	4 2
Rad Radium-226											
Lucas Cell, Ra226, Lie	quid "As Recei	ved"									
Radium-226		0.982	+/-0.297	0.247	1.00	pCi/L		MXH:	8 04/01/21	0909 210010	0 3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

77.2 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 3 of 27 SDG: 536991

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

Certificate of Analysis

Report Date:

April 1, 2021

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:
 AE96395
 Project:
 SOOP00119

 Sample ID:
 536991002
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 25-FEB-21 11:15
Receive Date: 05-MAR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batel	Method
Rad Gas Flow Propor	rtional Counting										
GFPC, Ra228, Liquid	d "As Received"										
Radium-228		2.32	+/-1.30	1.98	3.00	pCi/L		LXB3	03/23/21	0645 209745	5 1
Radium-226+Radium	n-228 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		3.58	+/-1.34			pCi/L		1 GXR1	04/01/21	1330 210299	4 2
Rad Radium-226											
Lucas Cell, Ra226, L	iquid "As Recei	ved"									
Radium-226	=	1 25	+/-0.336	0.211	1.00	pCi/L		MXH8	04/01/21	0909 210010	0 3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88 (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:

April 1, 2021

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: AE96399 Project: SOOP00119 Sample ID: 536991003 Client ID: SOOP001

Matrix: Ground Water Collect Date: 25-FEB-21 15:40 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Propor	tional Counting										
GFPC, Ra228, Liquio	l "As Received"										
Radium-228		2.01	+/-1.14	1.70	3.00	pCi/L		LXB3	03/23/21	0645 2097455	1
Radium-226+Radium	1-228 Calculatio	n "See Pa	rent Products"								
Radium-226+228 Sum		4.35	+/-1.24			pCi/L		1 GXR1	04/01/21	1330 2102994	2
Rad Radium-226											
Lucas Cell, Ra226, L	iquid "As Recei	ved"									
Radium-226	-	2.34	+/-0.480	0.330	1.00	pCi/L		MXH	8 04/01/21	0909 2100100	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

85.2 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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:

April 1, 2021

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:
 AE96393
 Project:
 SOOP00119

 Sample ID:
 536991004
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 04-MAR-21 11:55
Receive Date: 05-MAR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	st Date	Time B	atch	Method
Rad Gas Flow Proportio	nal Counting											
GFPC, Ra228, Liquid "A	As Received"											
Radium-228		1.96	+/-0.969	1.35	3.00	pCi/L		LXB3	03/23/21	0645 20	97455	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		3.36	+/-1.03			pCi/L		1 GXR1	04/01/21	1330 21	02994	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.40	+/-0.352	0.170	1.00	pCi/L		MXH	04/01/21	0909 21	00100	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88.3 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor 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:

April 1, 2021

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:
 AE96391
 Project:
 SOOP00119

 Sample ID:
 536991005
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 04-MAR-21 13:09
Receive Date: 05-MAR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid ".	As Received"										
Radiun-228	\mathbf{U}	1.53	+/-1.10	1.74	3.00	pCi/L		LXB3	03/23/21	0645 209745	5 1
Radium-226+Radium-2	28 Calculatio	n "See Pa	rent Products"								
Radium-226+228 Sum		3.18	+/-1.17			pCi/L		1 GXR1	04/01/21	1330 210299	1 2
Rad Radium-226											
Lucas Cell, Ra226, Liquid "As Received"											
Radium-226		1.65	+/-0.380	0.170	1.00	pCi/L		MXH	04/01/21	0909 210010) 3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 85.8 (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:

April 1, 2021

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: AE96392 Project: SOOP00119 Sample ID: 536991006 Client ID: SOOP001

Matrix: Ground Water Collect Date: 04-MAR-21 13:14 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Gas Flow Proportio	nal Counting												
GFPC, Ra228, Liquid "A	As Received"												
Radium-228		3.31	+/-1.12	1.34	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"										
Radium-226+228 Sum		4.72	+/-1.18			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	id "As Receiv	ved"											
Radium-226		1.42	+/-0.355	0.234	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

84.1 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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:

April 1, 2021

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: AE96400 Project: SOOP00119 Sample ID: 536991007 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 04-MAR-21 14:27
Receive Date: 05-MAR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ana	lyst Date	Time	Batch	Method
Rad Gas Flow Proportio	nal Counting											
GFPC, Ra228, Liquid "A	As Received"											
Radium-228	\mathbf{U}	0.524	+/-0.852	1.49	3.00	pCi/L		LXE	3 03/23/21	0646	2097455	1
Radium-226+Radium-22	28 Calculation	n "See Pa	rent Products"									
Radium-226+228 Sum		2.01	+/-0.937			pCi/L		1 GXI	1 04/01/21	1330	2102994	2
Rad Radium-226												
Lucas Cell, Ra226, Liqu	id "As Receiv	ved"										
Radium-226		1.49	+/-0.390	0.197	1.00	pCi/L		MX	I8 04/01/21	0909	2100100	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 84.6 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor 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:

April 1, 2021

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:
 AE96414
 Project:
 SOOP00119

 Sample ID:
 536991008
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 02-MAR-21 12:53
Receive Date: 05-MAR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Ba	itch M	Iethod
Rad Gas Flow Proportio	nal Counting											
GFPC, Ra228, Liquid "A	As Received"											
Radium-228	\mathbf{U}	1.48	+/-1.33	2.18	3.00	pCi/L		LXB3	03/23/21	0646 209	7455	1
Radium-226+Radium-22	28 Calculation	n "See Pa	rent Products"									
Radium-226+228 Sum		2.10	+/-1.35			pCi/L		1 GXR	04/01/21	1330 210	2994	2
Rad Radium-226												
Lucas Cell, Ra226, Liqu	id "As Receiv	ved"										
Radium-226		0.624	+/-0.254	0.191	1.00	pCi/L		MXH	8 04/01/21	0909 210	0100	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 86.2 (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:

April 1, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96419 SOOP00119 Sample ID: 536991009 Client ID: SOOP001

Matrix: Ground Water Collect Date: 02-MAR-21 14:01 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ana	lyst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	\mathbf{U}	0.552	+/-1.19	2.08	3.00	pCi/L		LXE	3 03/23/21	0646 2097455	5 1
Radium-226+Radium-2	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		1.52	+/-1.22			pCi/L		1 GXF	1 04/01/21	1330 2102994	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		0.970	+/-0.283	0.158	1.00	pCi/L		MXI	I8 04/01/21	1211 2100100	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

83.8 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Certificate of Analysis

Report Date:

DF Analyst Date Time Batch Method

April 1, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Result Uncertainty

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

 Client Sample ID:
 AE96401
 Project:
 SOOP00119

 Sample ID:
 536991010
 Client ID:
 SOOP001

MDC

Matrix: Ground Water
Collect Date: 02-MAR-21 10:48
Receive Date: 05-MAR-21
Collector: Client

Qualifier

2 02 01210701	& commercial states	2000001	Chechanity	1.11	100	CHILD		r mary st rate	Time Butti	1710tilot
Rad Gas Flow Proportion	nal Counting									
GFPC, Ra228, Liquid "A	s Received"									
Radium-228	\mathbf{U}	0.141	+/-0.941	1.73	3.00	pCi/L		LXB3 03/23/21	0646 2097455	1
Radium-226+Radium-22	8 Calculation	ı "See Pa	rent Products"							
Radium-226+228 Sum		0.390	+/-0.955			pCi/L	1	GXR1 04/01/21	1330 2102994	2
Rad Radium-226										
Lucas Cell, Ra226, Liqui	d "As Receiv	red"								
Radium-226		0.250	+/-0.160	0.174	1.00	pCi/L		MXH8 04/01/21	0945 2100100	3

RI.

Units

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 89.5 (15%-125%)

Notes:

Parameter

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:

April 1, 2021

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: AE96402 Project: SOOP00119 Sample ID: 536991011 Client ID: SOOP001

Matrix: Ground Water Collect Date: 02-MAR-21 10:53 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	st Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	\mathbf{U}	0.794	+/-0.929	1.56	3.00	pCi/L		LXB3	03/23/21	0646 2097455	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		1.10	+/-0.947			pCi/L		1 GXR1	04/01/21	1330 2102994	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226		0.308	+/-0.183	0.210	1.00	pCi/L		MXH	04/01/21	0945 2100100	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Test Result Surrogate/Tracer Recovery Nominal Recovery% Acceptable Limits

88.5 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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:

April 1, 2021

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: AE96413 Project: SOOP00119 Sample ID: 536991012 Client ID: SOOP001

Matrix: Ground Water Collect Date: 01-MAR-21 10:05 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	\mathbf{U}	0.271	+/-0.926	1.67	3.00	pCi/L		LXB3	03/23/21	0646 2097455	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		1.24	+/-0.972			pCi/L		1 GXR1	04/01/21	1330 2102994	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226		0.972	+/-0.297	0.173	1.00	pCi/L		MXH	04/01/21	0945 2100100	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Test Result Surrogate/Tracer Recovery Nominal Recovery% Acceptable Limits

89.1 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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:

April 1, 2021

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:
 AE96417
 Project:
 SOOP00119

 Sample ID:
 536991013
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 01-MAR-21 11:10
Receive Date: 05-MAR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid ".	As Received"										
Radiun-228	\mathbf{U}	-0.953	+/-0.818	1.75	3.00	pCi/L		LXB3	03/23/21	0646 2097455	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	rent Products"								
Radium-226+228 Sum		0.139	+/-0.830			pCi/L		1 GXR1	04/01/21	1330 2102994	2
Rad Radium-226											
Lucas Cell, Ra226, Liquid "As Received"											
Radium-226	U	0.139	+/-0.140	0.220	1.00	pCi/L		MXH	04/01/21	0945 2100100	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88 (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:

April 1, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96418 SOOP00119 Sample ID: 536991014 Client ID: SOOP001

Matrix: Ground Water Collect Date: 01-MAR-21 11:15 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proport	ional Counting										
GFPC, Ra228, Liquid	"As Received"										
Radium-228	\mathbf{U}	1.63	+/-1.60	2.65	3.00	pCi/L		LXB3	03/23/21	0802 209745	5 1
Radium-226+Radium-	228 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		2.15	+/-1.61			pCi/L		1 GXR1	04/01/21	1330 210299	4 2
Rad Radium-226											
Lucas Cell, Ra226, Lie	quid "As Recei	ved"									
Radium-226		0.518	+/-0.221	0.172	1.00	pCi/L		MXH8	04/01/21	0945 210010	0 3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

87.3 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Certificate of Analysis

Report Date:

April 1, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96416 SOOP00119 Sample ID: 536991015 Client ID: SOOP001

Matrix: Ground Water Collect Date: 01-MAR-21 12:31 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ana	lyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid ".	As Received"										
Radium-228	\mathbf{U}	0.271	+/-1.13	2.03	3.00	pCi/L		LXE	3 03/23/21	0646 2097455	5 1
Radium-226+Radium-2	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		0.965	+/-1.16			pCi/L		1 GXF	1 04/01/21	1330 210299	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		0.694	+/-0.264	0.222	1.00	pCi/L		MX	I8 04/01/21	0945 2100100	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

90.1 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 17 of 27 SDG: 536991

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

Certificate of Analysis

Report Date:

April 1, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AE96415 SOOP00119 Sample ID: 536991016 Client ID: SOOP001

Matrix: Ground Water Collect Date: 01-MAR-21 13:48 Receive Date: 05-MAR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid ".	As Received"										
Radiun-228	\mathbf{U}	1.32	+/-0.912	1.40	3.00	pCi/L		LXB3	03/23/21	0646 2097455	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	rent Products"								
Radium-226+228 Sum		2.23	+/-0.964			pCi/L		1 GXR1	04/01/21	1330 2102994	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		0.908	+/-0.311	0.264	1.00	pCi/L		MXH8	04/01/21	0945 2100100	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

83.4 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

QC Summary

Report Date: April 1, 2021

Page 1 of 2

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact:

Ms. Jeanette Gilmetti

Workorder: 536991

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anist	Date Time
Rad Gas Flow Batch 2097455									
QC1204762520 536093004 DUP Radium-228	U Uncertainty	0.524 +/-0.903	U	0.739 +/-0.982	pCi/L	N/A		N/A LXB3	03/23/21 06:46
	oncerumiy	, 0.20		., 0.502					
QC1204762521 LCS Radium-228	54.3 Uncertainty			46.4 +/-3.39	pCi/L		85.4	(75%-125%)	03/23/21 06:46
QC1204762519 MB Radium-228	Uncertainty		U	1.67 +/-1.34	pCi/L				03/23/21 06:46
Rad Ra-226 Batch 2100100									
QC1204767958 536991001 DUP Radium-226	Uncertainty	0.982 +/-0.297		1.56 +/-0.385	pCi/L	45.6*		(0%-20%) MXH8	04/01/21 10:33
QC1204767960 LCS Radium-226	27.0 Uncertainty			22.3 +/-1.38	pCi/L		82.4	(75%-125%)	04/01/21 10:33
QC1204767957 MB Radium-226	Uncertainty		U	0.186 +/-0.227	pCi/L				04/01/21 10:33
QC1204767959 536991001 MS Radium-226	27.0 Uncertainty	0.982 +/-0.297		21.3 +/-1.36	pCi/L		75	(75%-125%)	04/01/21 10:33

Notes:

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

The Qualifiers in this report are defined as follows:

** Analyte is a Tracer compound

< Result is less than value reported</p>

> Result is greater than value reported

BD Results are either below the MDC or tracer recovery is low

FA Failed analysis.

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

QC Summary

Page 2 of 2 Parmname NOV Sample Qual \mathbf{OC} Units RPD% REC% Range Anist Date Time Η Analytical holding time was exceeded

T See case narrative for an explanation

536991

T Value is estimated

Workorder:

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

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.

Page 20 of 27 SDG: 536991

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 536991

Product: GFPC, Ra228, Liquid

<u>Analytical Method:</u> EPA 904.0/SW846 9320 Modified <u>Analytical Procedure:</u> GL-RAD-A-063 REV# 5

Analytical Batch: 2097455

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

GEL Sample ID#	Client Sample Identification
536991001	AE96394
536991002	AE96395
536991003	AE96399
536991004	AE96393
536991005	AE96391
536991006	AE96392
536991007	AE96400
536991008	AE96414
536991009	AE96419
536991010	AE96401
536991011	AE96402
536991012	AE96413
536991013	AE96417
536991014	AE96418
536991015	AE96416
536991016	AE96415
1204762519	Method Blank (MB)
1204762520	536093004(AE96382) Sample Duplicate (DUP)
1204762521	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.

Technical Information

Recounts

Sample 536991014 (AE96418) was recounted to verify sample results. Recount is reported.

Product: Lucas Cell, Ra226, Liquid **Analytical Method:** EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Page 21 of 27 SDG: 536991

Analytical Batch: 2100100

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

GEL Sample ID#	Client Sample Identification
536991001	AE96394
536991002	AE96395
536991003	AE96399
536991004	AE96393
536991005	AE96391
536991006	AE96392
536991007	AE96400
536991008	AE96414
536991009	AE96419
536991010	AE96401
536991011	AE96402
536991012	AE96413
536991013	AE96417
536991014	AE96418
536991015	AE96416
536991016	AE96415
1204767957	Method Blank (MB)
1204767958	536991001(AE96394) Sample Duplicate (DUP)
1204767959	536991001(AE96394) Matrix Spike (MS)
1204767960	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

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1204767958 (AE96394DUP)	Radium-226	RPD 45.6* (0.00%-20.00%) RER 1.82 (0-3)

Technical Information

Recounts

Sample 536991009 (AE96419) was recounted to verify sample results. Recount is reported.

Certification Statement

Page 22 of 27 SDG: 536991

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.

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Chain of Custody

4/2



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

Customer Email/Report Recipient: Date Results Needed by: Project/Task/Unit #: Rerun request for any flagged QC LCWILLIA 121567/JM02.09.601 / 36500 Yes @santeecooper.com No **Analysis Group** Labworks ID# Sample Location/ Comments Q. Collection Time Matrix(see below) Collection Date (Internal use Description Method # Sample Collector container 226 Preservative (below) only) Reporting limit 22 ZAP TAP Bottle type: (G/Plastic-P) Grab (G) or Composite (Misc, sample info Total # of 288 RAP TOTAL Any other notes X 2 X P X G 2 GW AE96394 WAP-14 2/25/21 1110 MOG 1115 AE96395 WAP-14 DUP WAP-15 1540 AE96399 3/4/24 WAP-13 1155 AE96393 1309 AE96391 WAP-12 AE96392 WAP-12 DUP 1314 WAP-16 1427 4E96400 DEW 1253 WLF-H-1 3/2/21 TG/OJ 4E9644 1401 AE96419 WLF-AI-5 Sample Receiving (Internal Use Only) Relinquished by: Employee# Date Time Received by: Employee # Date Time TEMP (°C): 20 Initial: 145 3/5/21 0959 3/5/21 GEL Snowan 35594 0959 Correct pH: (Yes Received by: Relinquished by: Employee# Date Time Employee # Date Time Preservative Lot#: 1345 GEL 3-5-21 Kelinguished by: Received by: Employee# Date Time Employee# Date/Time/Init for preservative: ☐ METALS (all) **Nutrients** MISC. Gypsum Coal <u>Flyash</u> Oil □ Ag □ Cu Franc Oil Qual. □ TOC BTEX □ Ultimate Ammonia \square A1 □ Fe □ Se □ Napthalene %Mostare Gypsum(all DOC □ % Moisture [] LOI □ ТНМ/НАА □ Sn below) $\Box \mathbf{K}$ ☐ As ☐ TP/TPO4 □ Ash @ % Carbon n voc Acuties ⊕:AIM □ NH3-N □ Sulfur □ Mineral $\square \mathbf{B}$ O Li \square Sr Dychectric Strength ☐ Oil & Grease DITOC $\Box \mathbf{F}$ ☐ BTUs Analysis 11:1 🗆 E. Coli □ Total metals □ Ba OTi □ CI □ Volatile Matter Dissolved Gases □ Sieve ☐ Total Coliform ☐ Soluble Metals □ Be ☐ Mn UTI □ NO2 ☐ CHN □ % Moisture Used Oil HqD □ Purity (CaSO4) f (gshpann ☐ Dissolved As Other Tests: O Br ☐ % Moisture □Мо $\Box V$ □ Ca Metals in oil □ Dissolved Fe □ XRF Scan □ NO3 El Sulfites NPDES eas, care i Niab □ Cd □ Zn ☐ Rad 226 □ HGI □ Na □pH □ SO4 □ Oil & Grease ☐ Rad 228 $H_{\mathcal{D}}$ Fineness ☐ Chlorides D Co □ Ni □ Hg 🛭 As ☐ Particulate Matter □ PCB D Particle Size O TSS COFER □ Cr □ Pb □ CrVI

Chain of Custody

2



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

Customer Email/Report Recipient:		Date Results N	eeded by:		Pr	oject/1	Task/Unit #:	Rerun reques	Rerun request for any flagged (
LCWILLIA	@santeecooper.com		diameter de la constitución de l	121	567	/ JM	02.09.GØ1	<u> </u>	No		
			, a ₁ , , ₁ ,						A	nalysi	s 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 (G)	Matrix(see below)	Rej	Comments thod # porting limit sc. sample info y other notes	RAD 226	RAD 228	TOTAL RAD CALC.
AE96401	WAP-17	3/2/21 1048	DEN TG/DJ	2 P	G	GN	2		×	Х	Х
AE96 402	WAP-17 DUP	T 1023		1 1	1	1	1		1)
AE96418	WBW-AI-I	3/1/12 1005	DEN								
AE96417	WLF-A1-4	1110	and place by participation of the state of t								
AE96418	WLE-AI-4 DUP	1115									
AE96416	WLF-AI-B	1231									
AE96415	WLF-A1-2	1348		<u> </u>			1		TI	1	1
	,		and the second second				·				
			ere e may by a processor								
	:		and the second second								
Relinquished by:	Employee# Date	Time Recei	ved by:	Employee	.#	Date	Time	Sample Receiving (Internal	Use On Initial	ly)	<u> </u>
Moun	35594 3/5/21	e959 M	0	GEL		3/5/2		Correct pH: (Yes) No		: 100	
Relinquished by:	Employee# Date	17 1 11 4	ved by:	Employee (AEL		- Date S - 2	Time	Preservative Lot#:			
Relinquished by:	Employee# Date	0 J - N - J	ved by:	Employee		Date	1345 Time				
								Date/Time/Init for preserv	/ative:		
□ MI □ Ag □ Co □ Ai □ Fe □ As □ K □ B □ Li □ Ba □ M □ Ca □ M □ Cd □ Ni □ Cc □ Ni □ Cr □ Pb		BTEX Napthal THM/F VOC Oil & Coli	IAA Irease oliform ed As ed Fe	O Wallberg Gyr belo O A O TO O S S O S S O C C C C C C C C C C C C	isum(a) IM OC otal meta duble Me rity (CaS Moisture fiftes I klorides rticle Siz	lls stats SO(4)	Coal Ultimate % Mois Ash Sulfur BTUs Volatile CHN Other Tests: XRF Scan HGI Fineness Particulate M	☐ Ammonia ☐ LOI ☐ % Carbon ☐ Mineral Analysis ☐ Sieve ☐ % Moisture NPDES ☐ Oil & Grease	C A A B B B B B B B B B B B B B B B B B	Mois ofer citity electric hisotra of OII as hed citits to vs Cit.	Qual title Sirength od Kitistis (1)



SAMPLE RECEIPT & REVIEW FORM

Client: <60P			SDG/AR/COC/V	Vork Order: 5310991			
Received By: MLS			Date Received: 3-5-71				
Carrier and Tracking Number			Date Received.	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other			
Suspected Hazard Information	Yes	%	*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 Ship If U	ped: UN#: N2910. Is the Radioactive Shipment Survey Compliant? Yes No			
B) Did the client designate the samples are to be received as radioactive?		/	COC notation or b	adioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		/		unts Observed* (Observed Counts - Area Background Counts): QPM/mR/Hr ed as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?		/		azard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		_	PCB's I	lect Hazards below. Flammable Foreign Soil RCRA Asbestos Beryllium Other:			
Sample Receipt Criteria	res	ž	ž	Comments/Qualifiers (Required for Non-Conforming Items)			
Shipping containers received intact and sealed?	4			ble: Seals broken Damaged container Leaking container Other (describe)			
2 Chain of custody documents included with shipment?	/			Method: Wet Ice Ice Packs Dry ice (None Other:			
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		/	*all tempe	ratures are recorded in Celsius TEMP: 16			
4 Daily check performed and passed on IR temperature gun?	/		Secondary Te	e Device Serial #: <u>IR3-18</u> emperature Device Serial # (If Applicable):			
5 Sample containers intact and sealed?	_			ble: Seals broken Damaged container Leaking container Other (describe)			
6 Samples requiring chemical preservation at proper pH?			If Preservation	nd Containers Affected: added, Lot#:			
7 Do any samples require Volatile Analysis?			Do liquid VO Are liquid VO	ncores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Freezer) OA vials contain acid preservation? YesNoNA(If unknown, select No) OA vials free of headspace? YesNoNA ad 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 conta	ainers affected:			
10 Date & time on COC match date & time on bottles?	/		Circle Applic	able: No dates on containers No times on containers COC missing info Other (describe)			
Number of containers received match number indicated on COC?	4		Circle Applic	able: No container count on COC Other (describe)			
Are sample containers identifiable as GEL provided by use of GEL labels? COC form is properly signed in	/		Circle Applic	able: Not relinquished Other (describe)			
relinquished/received sections? Comments (Use Continuation Form if needed):							

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 01 April 2021

State Alabama	Certification 42200			
Alaska	17-018			
Alaska Drinking Water	SC00012			
Arkansas	88-0651			
CLIA	42D0904046			
California	2940			
Colorado	SC00012			
Connecticut	PH-0169			
DoD ELAP/ ISO17025 A2LA	2567.01			
Florida NELAP	E87156			
Foreign Soils Permit	P330-15-00283, P330-15-00253			
Georgia	SC00012			
Georgia SDWA	967			
Hawaii	SC00012			
Idaho	SC00012			
Illinois NELAP	200029			
Indiana	C-SC-01			
Kansas NELAP				
	E-10332			
Kentucky SDWA	90129			
Kentucky Wastewater	90129			
Louisiana Drinking Water	LA024			
Louisiana NELAP	03046 (AI33904)			
Maine	2019020			
Maryland	270			
Massachusetts	M-SC012			
Massachusetts PFAS Approv	Letter			
Michigan	9976			
Mississippi	SC00012			
Nebraska	NE-OS-26-13			
Nevada	SC000122021-1			
New Hampshire NELAP	2054			
New Jersey NELAP	SC002			
New Mexico	SC00012			
New York NELAP	11501			
North Carolina	233			
North Carolina SDWA	45709			
North Dakota	R-158			
Oklahoma	2019–165			
Pennsylvania NELAP	68-00485			
Puerto Rico	1			
S. Carolina Radiochem	SC00012			
	10120002			
Sanitation Districts of L	9255651			
South Carolina Chemistry	10120001			
Tennessee	TN 02934			
Texas NELAP	T104704235-21-19			
Utah NELAP	SC000122020-34			
Vermont	VT87156			
Virginia NELAP	460202			
Washington	C780			











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

May 05, 2021

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

Re: ABS Lab Analytical Work Order: 540416

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 09, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 540416 GEL Work Order: 540416

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
- 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.

	Inlie	Robinson	
Reviewed by			

Page 2 of 13 SDG: 540416

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

Certificate of Analysis

Report Date:

May 5, 2021

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: AF00693 Project: SOOP00119 Sample ID: 540416001 Client ID: SOOP001

Matrix: Ground Water Collect Date: 08-APR-21 15:27 Receive Date: 09-APR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time Batch	Method	
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "A	As Received"												
Radium-228	\mathbf{U}	1.02	+/-1.44	2.48	3.00	pCi/L			LXB3	04/20/21	1021 2114215	1	
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.26	+/-1.46			pCi/L		1	AEA	05/05/21	0724 2117539	2	
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	\mathbf{U}	0.244	+/-0.234	0.374	1.00	pCi/L			LXP1	04/22/21	0947 2114169	3	

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

58.8 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 3 of 13 SDG: 540416

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

Certificate of Analysis

Report Date:

May 5, 2021

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:
 AF00694
 Project:
 SOOP00119

 Sample ID:
 540416002
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 08-APR-21 15:32
Receive Date: 09-APR-21
Collector: Client

0---1:6---

Parameter	Quanner	Kesun	Uncertainty	MDC	KL	Units	PF	DF A	naiyst Date	Time Batch	Method
Rad Gas Flow Propo	ortional Counting										
GFPC, Ra228, Liqu	id "As Received"										
Radium-228	U	0.897	+/-1.47	2.55	3.00	pCi/L		L	XB3 04/20/21	1021 2114215	1
Radium-226+Radius	m-228 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		1.11	+/-1.48			pCi/L		1 A	EA 05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, 1	Liquid "As Receiv	ved"									
Radium-226		0.214	+/-0.154	0.182	1.00	pCi/L		L	XP1 04/22/21	0947 2114169	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 59.5 (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

Page 4 of 13 SDG: 540416

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

Certificate of Analysis

Report Date:

May 5, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Project: Client Sample ID: AF00695 SOOP00119 Sample ID: 540416003 Client ID: SOOP001

Matrix: Ground Water Collect Date: 08-APR-21 13:31 Receive Date: 09-APR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid ".	As Received"												
Radium-228		3.85	+/-1.62	2.15	3.00	pCi/L			LXB3	04/20/21	1021	2114215	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		4.02	+/-1.63			pCi/L		1	AEA	05/05/21	0724	2117539	2
Rad Radium-226													
Lucas Cell, Ra226, Liqu	Lucas Cell, Ra226, Liquid "As Received"												
Radium-226	U	0.172	+/-0.207	0.348	1.00	pCi/L			LXP1	04/22/21	1020	2114169	3

The following Analytical Methods were performed:

Method Description **Analyst Comments**

EPA 904.0/SW846 9320 Modified 1

2 Calculation EPA 903.1 Modified

Result Surrogate/Tracer Recovery Test Nominal Recovery% Acceptable Limits

54.2 (15%-125%) Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 5 of 13 SDG: 540416

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

Certificate of Analysis

Report Date:

May 5, 2021

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:
 AF00696
 Project:
 SOOP00119

 Sample ID:
 540416004
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 08-APR-21 13:36
Receive Date: 09-APR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method		
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquio	l "As Received"												
Radium-228		4.17	+/-1.91	3.00	3.00	pCi/L		LXB3	04/20/21	1204 2114215	1		
Radium-226+Radium	n-228 Calculation	n "See Pa	arent Products"										
Radium-226+228 Sum		5.19	+/-1.94			pCi/L		1 AEA	05/05/21	0724 2117539	2		
Rad Radium-226													
Lucas Cell, Ra226, L	iquid "As Recei	ved"											
Radium-226	_	1.02	+/-0.323	0.292	1.00	pCi/L		LXP1	04/22/21	1020 2114169	3		

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 59.8 (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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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: May 5, 2021

Page 1 of 2

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact:

Ms. Jeanette Gilmetti

Workorder: 540416

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2114215									
QC1204793535 540415006 DUP Radium-228	U Uncertainty	2.33 +/-1.60		4.22 +/-1.79	pCi/L	57.7		(0% - 100%) LXB3	04/20/21 10:21
QC1204793536 LCS Radium-228	53.8 Uncertainty			52.3 +/-3.29	pCi/L		97.2	(75%-125%)	04/20/21 10:24
QC1204793534 MB Radium-228	Uncertainty		U	-1.71 +/-1.16	pCi/L				04/20/21 10:20
Rad Ra-226 Batch 2114169									
QC1204793424 540415001 DUP Radium-226	Uncertainty	0.713 +/-0.274		0.672 +/-0.268	pCi/L	5.99		(0% - 100%) LXP1	04/22/21 10:20
QC1204793426 LCS Radium-226	27.0 Uncertainty			22.8 +/-1.49	pCi/L		84.3	(75%-125%)	04/22/21 10:20
QC1204793423 MB Radium-226	Uncertainty		U	0.133 +/-0.184	pCi/L				04/22/21 10:20
QC1204793425 540415001 MS Radium-226	135 Uncertainty	0.713 +/-0.274		105 +/-6.54	pCi/L		77.2	(75%-125%)	04/22/21 10:20

Notes:

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

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

Page 7 of 13 SDG: 540416

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

QC Summary

Workorder: 540416 Page 2 of 2 Parmname NOV Sample Qual \mathbf{OC} Units RPD% REC% Range Anist Date Time Η Analytical holding time was exceeded T See case narrative for an explanation T Value is estimated K Analyte present. Reported value may be biased high. Actual value is expected to be lower. L Analyte present. Reported value may be biased low. Actual value is expected to be higher.

- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

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.

Page 8 of 13 SDG: 540416

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 540416

Product: GFPC, Ra228, Liquid

<u>Analytical Method:</u> EPA 904.0/SW846 9320 Modified <u>Analytical Procedure:</u> GL-RAD-A-063 REV# 5

Analytical Batch: 2114215

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

GEL Sample ID#	Client Sample Identification
540416001	AF00693
540416002	AF00694
540416003	AF00695
540416004	AF00696
1204793534	Method Blank (MB)
1204793535	540415006(AF00634) Sample Duplicate (DUP)
1204793536	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

Homogenous Matrix

Samples 540416 were yellow in appearance but clear. They did have a mild odor to them. 540416001 (AF00693), 540416002 (AF00694), 540416003 (AF00695) and 540416004 (AF00696).

Technical Information

Recounts

Sample 540416004 (AF00696) was recounted due to high MDC. The recount is reported.

Product: Lucas Cell, Ra226, Liquid Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2114169

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

GEL Sample ID# Client Sample Identification

540416001 AF00693

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540416002	AF00694
540416003	AF00695
540416004	AF00696
1204793423	Method Blank (MB)
1204793424	540415001(AF00633) Sample Duplicate (DUP)
1204793425	540415001(AF00633) Matrix Spike (MS)
1204793426	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, 1204793425 (AF00633MS), 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.

Page 10 of 13 SDG: 540416

Chain of Custody 540416



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

Labworks ID # Sample Location/ Description Descripti	No No No No No No No No
(Internal use only) Description Paragraphic Collection Time Sample Collection Time Sample Collection Time Sample Collection Time Sample Collection Time Sample Collection Time AF00694 WLF-A2-6 Dup AF00695 WAP-I7 Delon IES31 AF00695 WAP-I7	Comments Method # Reporting limit Misc. sample info Any other notes Comments Reporting limit Ary Reporting lim
(Internal use only) Description Paragraphic Collection Time Sample Collection Time Sample Collection Time Sample Collection Time Sample Collection Time Sample Collection Time AF00694 WLF-A2-6 Dup AF00695 WAP-I7 Delon IES31 AF00695 WAP-I7	Reporting limit Misc. sample info Any other notes
AF00694 WLF-AZ-6 DUP 1532	X X X
AF00 695 WAP-17 1331	
A=00696 WAP-17 DUP 1 1336 1 1 1 1 1	
Relinquished by: Employee# Date Time Received by: Employee# Date	Sample Receiving (Internal Use Only) Time TEAM (90)
Amoun 35594 4/9/21 1015 W GEL 4/9/21	Correct nH: Ves No
Relinquished by: Employee# Date Time Received by: Employee# Date ALC 641 422, 1324 144 GEL 421 L	Preservative Lot#:
Received by: Employee# Date Time Received by: Employee # Date	Time
□ METALS (all) Nutrients MISC Gypsum	Date/Time/Init for preservative:
TAR IT CO IT CO	<u>Coal</u> <u>Flyash</u> <u>Oil</u>
TAN TIPE TIPE	Ultimate □ % Moisture □ LOI □ Trans. Oil Qual. □ % Moisture
□ As □ K □ Sn □ TP/TPO4 □ THM/HAA below)	□ Ash □ % Carbon Color Acidity
	U Sultur [1] Mineral 3 Diolestric Strength
□ Ba □ Mg □ Ti □ □ E Coli □ Fotal metals	☐ BTUS Analysis HIT ☐ Sieve Disselved Gases
1 I Total Coliform Fr Soluble Motals	D CHN D % Moisture Used Oil
☐ Ca ☐ Mo ☐ V ☐ Br ☐ Dissolved As ☐ % Moisture Oth	ther Tests: Physiquent
1 NO3 Dissolved 1º Saintes U.A.	XRF Scan NPDES Metab in oil (ArCd.Cr.Ni.Pb)
□ Rad 228 □ Chilorides □ F	Fineness Li Oil & Grease Hg)
	Particulate Matter DAS DAS GOVER
□ Cr □ Pb □ CrVI tr Suthir	

CEE Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SOOP			SDG	AR/COC/Work Order: 540416							
Received By: STACY BOON	E		Date	e Received: 9-APRIL-21							
Carrier and Tracking Number				Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other							
Suspected Hazard Information	Yes	°Z	*If N	let Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.							
A)Shipped as a DOT Hazardous?		_	Haza	rd 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?				OC notation or radioactive stickers on containers equal client designation.							
C) Did the RSO classify the samples as radioactive?			Max	Maximum Net Counts Observed (Observed Counts - Area Background Counts):CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3							
D) Did the client designate samples are hazardous?		_	<u> </u>	notation or hazard labels on containers equal client designation.							
E) Did the RSO identify possible hazards?		_	lf D	or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:							
Sample Receipt Criteria	Yes	ž	å	Comments/Qualifiers (Required for Non-Conforming Items)							
Shipping containers received intact and sealed?				Circle Applicable: Seals broken Damaged container Leaking container Other (describe)							
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: 13 c							
4 Daily check performed and passed on IR temperature gun?	/			Temperature Device Serial #:							
5 Sample containers intact and sealed?				Circle Applicable: Seals broken Damaged container Leaking container Other (describe)							
6 Samples requiring chemical preservation at proper pH?		www.massis		Sample ID's and Containers Affected: If Preservation added, Lof#:							
7 Do any samples require Volatile Analysis?			/	If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No) Are liquid VOA vials free of headspace? YesNoNA Sample 1D'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:							
Date & time on COC match date & time on bottles?	/		L	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)							
number indicated on COC?	/			Circle Applicable: No container count on COC Other (describe)							
Are sample containers identifiable as GEL provided by use of GEL labels?		1	/								
12 COC form is properly signed in	/			Circle Applicable: Not relinquished Other (describe)							
relinquished/received sections? Comments (Use Continuation Form if needed):			I								
•											
,											
				NO1- U12 21							

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 05 May 2021

State Alabama	Certification 42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
	2019020
Maryland Massachusetts	<u> </u>
	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
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	T104704235-21-19
Utah NELAP	SC000122020-34
Vermont	
	VT87156
Virginia NELAP	V18/156 460202











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843,556,8171 F 843,766,1178

gel.com

August 26, 2021

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

Re: ABS Lab Analytical Work Order: 551182

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 30, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 551182 GEL Work Order: 551182

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
- 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.

	Inlie	Robinson	
Reviewed by			

Page 2 of 16 SDG: 551182

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

Certificate of Analysis

Report Date: August 26, 2021

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: AF09053 Project: SOOP00119 Sample ID: 551182001 Client ID: SOOP001

Matrix: Ground Water Collect Date: 19-JUL-21 11:24 Receive Date: 30-JUL-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	s Received"										
Radium-228	U	-1.03	-/-0.843	1.84	3.00	pCi/L		JXC9	08/17/21	0929 2157720	1
Radium-226+Radium-22	8 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		1.40	+/-0.962			pCi/L		l AEA	08/24/21	1422 2157718	2
Rad Radium-226											
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"									
Radium-226		1.40	-/-0.463	0.290	1.00	pCi/L		LXPI	08/22/21	0714 2157760	3
		~									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits Barium-133 Tracer (15%-125%)

GFPC, Ra228, Liquid "As Received"

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

Page 3 of 16 SDG: 551182

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

Certificate of Analysis

Report Date: August 26, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti ABS Lab Analytical Project:

Client Sample ID: AF09070 Project: SOOP00119 Sample ID: 551182002 Client ID: SOOP001

Matrix: Ground Water Collect Date: 19-JUL-21 10:30 Receive Date: 30-JUL-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ar	alyst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	s Received"										
Radium-228	U	-0.396	-/-0.781	1.60	3.00	pCi/L		JX	C9 08/17/21	0930 2157720	1
Radium-226+Radium-22	8 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		0.983	+/-0.867			pCi/L		l AE	A 08/24/21	1422 2157718	2
Rad Radium-226											
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"									
Radium-226		0.983	-/-0.378	0.351	1.00	pCi/L		LX	PI 08/22/21	0714 2157760	3
		~									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits Barium-133 Tracer 82.8 (15%-125%)

GFPC, Ra228, Liquid "As Received"

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

Page 4 of 16 SDG: 551182

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

Certificate of Analysis

Report Date: August 26, 2021

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: AF09065 Project: SOOP00119 Sample ID: 551182003 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 19-JUL-21 14:22
Receive Date: 30-JUL-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	s Received"										
Radium-228	U	0.453	-/-0.984	1.74	3.00	pCi/L		JXC9	08/17/21	0930 2157720	1
Radium-226+Radium-22	8 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		1.67	+/-1.08			pCi/L		l AEA	08/24/21	1422 2157718	2
Rad Radium-226											
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"									
Radium-226		1.21	-/-0.439	0.415	1.00	pCi/L		LXPI	08/22/21	0714 2157760	3
555 C 33 1 4 3											

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 81.1 (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

Page 5 of 16 SDG: 551182

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

Certificate of Analysis

Report Date: August 26, 2021

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: AF09066 Project: SOOP00119 Sample ID: 551182004 Client ID: SOOP001

Matrix: Ground Water Collect Date: 19-JUL-21 14:27 Receive Date: 30-JUL-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	2.67	+/-1.80	2.77	3.00	pCi/L		JXC9	08/17/21	0930 2157720	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		3.81	+/-1.85			pCi/L		l AEA	08/24/21	1422 2157718	2
Rad Radium-226											
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"									
Radium-226		1.15	-/-0.418	0.373	1.00	pCi/L		LXPI	08/22/21	0714 2157760	3
CCT C 33 1 4 3		~									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 44.8 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 6 of 16 SDG: 551182

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

Certificate of Analysis

Report Date: August 26, 2021

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: AF09050 Project: SOOP00119 Sample ID: 551182005 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 20-JUL-21 12:28
Receive Date: 30-JUL-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	\mathbf{PF}	DF Analy	yst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		3.96	+/-1.44	1.96	3.00	pCi/L		JXC9	08/17/21	0930 2157720	1
Radium-226+Radium-23	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		5.01	+/-1.51			pCi/L		l AEA	08/24/21	1422 2157718	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		1.05	-/-0.475	0.559	1.00	pCi/L		LXP1	08/22/21	0714 2157760	3
EET C 13 1 4 3 41	132 3 1										

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 85.5 (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

Page 7 of 16 SDG: 551182

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

Certificate of Analysis

Report Date: August 26, 2021

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: AF09051 Project: SOOP00119 Sample ID: 551182006 Client ID: SOOP001

Matrix: Ground Water Collect Date: 20-JUL-21 13:28 Receive Date: 30-JUL-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	s Received"										
Radium-228		2.80	-/-0.988	1.18	3.00	pCi/L		JXC9	08/17/21	0930 2157720	1
Radium-226+Radium-22	8 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		7.52	+/-1.28			pCi/L		l AEA	08/24/21	1422 2157718	2
Rad Radium-226											
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"									
Radium-226		4.72	-/-0.810	0.505	1.00	pCi/L		LXPI	08/22/21	0714 2157760	3
CCT C 33 1 4 3		~									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 90.5 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 8 of 16 SDG: 551182

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

Certificate of Analysis

Report Date: August 26, 2021

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: AF09083 Project: SOOP00119 Sample ID: 551182007 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 20-JUL-21 11:07
Receive Date: 30-JUL-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting											
GFPC, Ra228, Liquid "A	As Received"											
Radium-228	U	0.0240	+/-1.24	2.26	3.00	pCi/L			JXC9	08/17/21	0929 2157720	I
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"									
Radium-226+228 Sum		0.626	+/-1.29			pCi/L		1	AEA	08/24/21	1422 2157718	2
Rad Radium-226												
Lucas Cell, Ra226, Liqui	id "As Recei	ved"										
Radium-226		0.602	-/-0.361	0.463	1.00	pCi/L			LXP1	08/22/21	0714 2157760	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 83.9 (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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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: August 26, 2021

Page 1 of 2

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 551182

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anist	Date Time
Rad Gas Flow Batch 2157720									
QC1204877893 551609004 DUP Radium-228	U Uncertainty	1.13 +/-1.19	U	0.433 +/-0.901	pCi/L	N/A		N/A JXC9	08/17/21 09:29
QC1204877894 LCS Radium-228	51.5 Uncertainty			45.9 +/-3.67	pCi/L		89.2	(75%-125%)	08/17/21 11:13
QC1204877892 MB Radium-228	Uncertainty		U	-0.0456 +/-0.829	pCi/L				08/17/21 09:28
Rad Ra-226 Batch 2157760									
QC1204878006 551182006 DUP Radium-226	Uncertainty	4.72 +/-0.810		5.09 +/-0.873	pCi/L	7.59		(0%-20%) LXP1	08/22/21 07:49
QC1204878008 LCS Radium-226	27.0 Uncertainty			24.8 +/-2.01	pCi/L		91.9	(75%-125%)	08/22/21 07:49
QC1204878005 MB Radium-226	Uncertainty		-	0.126 +/-0.195	pCi/L				08/22/21 07:49
QC1204878007 551182006 MS Radium-226	135 Uncertainty	4.72 +/-0.810		130 +/-9.30	pCi/L		92.8	(75%-125%)	08/22/21 07:49

Notes:

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

The Qualifiers in this report are defined as follows:

** Analyte is a Tracer compound

Result is less than value reported

> Result is greater than value reported

BD Results are either below the MDC or tracer recovery is low

FA Failed analysis.

Page 10 of 16 SDG: 551182

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

QC Summary

Workorder: 551182

Page 2 of 2

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

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

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.

Page 11 of 16 SDG: 551182

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 551182

Product: GFPC, Ra228, Liquid

<u>Analytical Method:</u> EPA 904.0/SW846 9320 Modified <u>Analytical Procedure:</u> GL-RAD-A-063 REV# 5

Analytical Batch: 2157720

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

GEL Sample ID#	Client Sample Identification
551182001	AF09053
551182002	AF09070
551182003	AF09065
551182004	AF09066
551182005	AF09050
551182006	AF09051
551182007	AF09083
1204877892	Method Blank (MB)
1204877893	551609004(AF09052) Sample Duplicate (DUP)
1204877894	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.

Technical Information

Recounts

Sample 1204877894 (LCS) was recounted due to low recovery. The recount is reported.

Product: Lucas Cell, Ra226, Liquid Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2157760

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

GEL Sample ID#	Client Sample Identification
551182001	AF09053
551182002	AF 0 9070
551182003	AF 0 9065
551182004	AF09066

Page 12 of 16 SDG: 551182

551182005	AF09050
551182006	AF09051
551182007	AF09083
1204878005	Method Blank (MB)
1204878006	551182006(AF09051) Sample Duplicate (DUP)
1204878007	551182006(AF09051) Matrix Spike (MS)
1204878008	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, 1204878007 (AF09051MS), 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.

Page 13 of 16 SDG: 551182

Chain of Custody

551182



Santee Coope One Riverwood Drive Moneks Corner, SC 29461 e: (843)761-8000 Ext. 5148 Fax: (843)761-4175

Customer I	Email	/Rep	ort Recipi	ent:	Date R	Results No	eded b	y:		P	roject/	/Task/	Unit #:	Re	erun request	for ar	ıy fla	gged	QC
LCWILL	IA		_@santeed	cooper.com		//	usp ³ ************************************		1219	567	1 JM	102.0	19. GOI	J_36500	Yes	No			
																A	nalysi	s Grou	B
Labworks II (Internal use only)	F4(4)		nple Locatio cription	on/	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)	• Me • Re • Mi • An	Comments thod # porting limit sc. sample info y other notes		1840 226	RAD 228	1 . 1	
AF0905	3	AW	+-4		7/19/21	1124	BRT	2	Þ	e	ew	2_				X	×	Х	
AF0907	Ö	WA	P-15	····	7/19/21	1030													
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Amou Relinquishe			35574 Employee#	7/30/2 Date	1230 Time	Keceiv	ed by:	E	GEL mployee		7/30 /: Date		1230 Time	Correct pH:	Yes No				
d1D			<u> </u>	202	1723	140		47	足し		4/30	1/22	1327	Preservative	Lot#:				
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	Laboratories LLC				SAMPLE RECEIPT & REVIEW FORM
Clie	THE SM	D		spi	G/AR/COC/Work Order: 551182
-		_1		\top	7, 7, 7
Rec	elved By:			Da	te Received: T = 50 - 10 1
					FedEx Express FedEx Ground UPS Field Services Courier Other
	Carrier and Tracking Number				
	darrier and Aracking Number				
Susp	ected Hazard Information	Yes	S _Z	*If	Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
				Haz	zard Class Shipped: UN#:
A)SI	hipped as a DOT Hazardous?		/		If UN2910, Is the Radioactive Shipment Survey Compliant? YesNo
		\vdash	T	ļ, —	
	id the client designate the samples are to be ved as radioactive?		/	CO	C notation or radioactive stickers on containers equal client designation.
				Ma	ximum Net Counts Observed* (Observed Counts - Area Background Counts):
	id the RSO classify the samples as pactive?				Classified as: Rad 1 Rad 2 Rad 3
D) D	old the client designate samples are hazardous?			CO	C notation or hazard labels on containers equal client designation.
E) D	id the RSO identify possible hazards?		/	If E	O or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
	Sample Receipt Criteria	Yes	N.	2 2	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and	1	-		Circle Applicable: Scals broken Damaged container Leaking container Other (describe)
	sealed?	<u> </u>			Code As Fable Climana and Jan 21 1000 COC and Jan 21 1000
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)?*		1	1	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 22:6
4	Daily check performed and passed on IR temperature gun?				Temperature Device Serial #: 14 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	1			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
			M	I	
6	Samples requiring chemical preservation at proper pH?	/			Sample ID's and Containers Affected:
	at proper pri	Ł_		<u> </u>	If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes No NA (If yes, take to VOA Freezer)
	Do any complex require Veletile		15		Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No)
7	Do any samples require Volatile Analysis?				Are liquid VOA vials free of headspace? Yes No NA
					Sample ID's and containers affected:
-				-	ID's and tests affected:
8	Samples received within holding time?	/		1	
	Sample ID's on COC match ID's on				JD's and containers affected:
Ĺ	bottles?	K		4	
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)
	Number of containers received match	T			Circle Applicable: No container count on COC Other (describe)
11	number indicated on COC?	/			:
12	Are sample containers identifiable as GEL provided by use of GEL labels?	/	1		
<u></u>	CQC form is properly signed in	1			Circle Applicable: Not relinquished Other (describe)
13	relinquished/received sections?	/		1	
Con	uments (Use Continuation Form if needed):				·
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List of current GEL Certifications as of 26 August 2021

State Alabama	Certification 42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	
	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
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	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Virginia NELAP	460202











gel.com

September 08, 2021

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

Re: ABS Lab Analytical Work Order: 552377

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 10, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 552377 GEL Work Order: 552377

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
- 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.

	Julie	Robinson	
Reviewed by			

Page 2 of 18 SDG: 552377

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

Certificate of Analysis

Report Date: September 8, 2021

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:
 AF09059
 Project:
 SOOP00119

 Sample ID:
 552377001
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 02-AUG-21 11:34
Receive Date: 10-AUG-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method		
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid	"As Received"												
Radium-228	U	-0.0936	+/-1.10	2.05	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1		
Radium-226+Radium-	228 Calculatio	n "See Pa	arent Products"										
Radium-226+228 Sum		3.81	+/-1.27			pCi/L		l AEA	09/07/21	1410 2166495	2		
Rad Radium-226													
Lucas Cell, Ra226, Lic	quid "As Recei	ved"											
Radium-226		3.81	-/-0.640	0.211	1.00	pCi/L		LXPI	08/31/21	0943 2161142	3		
ET C 11 ' 4 1 '		6	•										

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 80.9 (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: September 8, 2021

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: AF09060 Project: SOOP00119 Sample ID: 552377002 Client ID: SOOP001

Matrix: Ground Water Collect Date: 02-AUG-21 11:39 Receive Date: 10-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method		
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid	"As Received"												
Radium-228		3.33	+/-1.32	1.80	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1		
Radium-226+Radium-	228 Calculatio	n "See Pa	arent Products"										
Radium-226+228 Sum		5.88	+/-1.42			pCi/L		l AEA	09/07/21	1410 2166495	2		
Rad Radium-226													
Lucas Cell, Ra226, Lic	juid "As Recei	ved"											
Radium-226		2.55	-/-0.515	0.203	1.00	pCi/L		LXP1	08/31/21	0943 2161142	3		
		~											

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 79.3 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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: September 8, 2021

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: AF09058 Project: SOOP00119 Sample ID: 552377003 Client ID: SOOP001

Matrix: Ground Water Collect Date: 02-AUG-21 13:39 Receive Date: 10-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF A	Analys	st Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting											
GFPC, Ra228, Liquid "A	s Received"											
Radium-228		2.19	+/-1.03	1.46	3.00	pCi/L		J	XC9	09/02/21	1050 2164572	1
Radium-226+Radium-22	8 Calculation	n "See Pa	arent Products"									
Radium-226+228 Sum		3.46	+/-1.11			pCi/L		1 A	EΑ	09/07/21	1410 2166495	2
Rad Radium-226												
Lucas Cell, Ra226, Liqui	d "As Receiv	ved"										
Radium-226		1.27	-/-0.407	0.404	1.00	pCi/L		L	XPI	08/31/21	0943 2161142	3
		~										

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 92.4 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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: September 8, 2021

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:
 AF09072
 Project:
 SOOP00119

 Sample ID:
 552377004
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 02-AUG-21 15:12
Receive Date: 10-AUG-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method		
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid '	'As Received"												
Radium-228		2.23	+/-1.09	1.56	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1		
Radium-226+Radium-2	228 Calculatio	n "See Pa	arent Products"										
Radium-226+228 Sum		3.04	+/-1.13			pCi/L		1 AEA	09/07/21	1410 2166495	2		
Rad Radium-226													
Lucas Cell, Ra226, Liq	uid "As Recei	ved"											
Radium-226		0.811	-/-0.311	0.222	1.00	pCi/L		LXP1	08/31/21	1050 2161142	3		

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 87.1 (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

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Certificate of Analysis

Report Date: September 8, 2021

Company: Santee Cooper Address: P.O. Box 2946101

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Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti ABS Lab Analytical Project:

Client Sample ID: AF09073 Project: SOOP00119 Sample ID: 552377005 Client ID: SOOP001

Matrix: Ground Water Collect Date: 02-AUG-21 15:17 Receive Date: 10-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		2.68	+/-1.11	1.47	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		3.53	+/-1.15			pCi/L		l AEA	09/07/21	1410 2166495	2
Rad Radium-226											
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"									
Radium-226		0.854	-/-0.314	0.300	1.00	pCi/L		LXP1	08/31/21	1050 2161142	3
CCT (2.33 1 4 3 -2	3 3 2 3 3	~									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 82.5

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: September 8, 2021

Company: Santee Cooper Address: P.O. Box 2946101

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Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Client Sample ID: AF09077 Project: SOOP00119 Sample ID: 552377006 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 03-AUG-21 11:30
Receive Date: 10-AUG-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	\mathbf{PF}	DF	Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting											
GFPC, Ra228, Liquid "A	As Received"											
Radium-228		4.54	+/-1.48	1.95	3.00	pCi/L			JXC9	09/02/21	1050 2164572	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"									
Radium-226+228 Sum		4.98	+/-1.49			pCi/L		1	AEA	09/07/21	1410 2166495	2
Rad Radium-226												
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"										
Radium-226		0.436	-/-0.230	0.246	1.00	pCi/L			LXPI	08/31/21	1050 2161142	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88.5 (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

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 8, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti ABS Lab Analytical Project:

Client Sample ID: AF09075 Project: SOOP00119 Sample ID: 552377007 Client ID: SOOP001

Matrix: Ground Water Collect Date: 03-AUG-21 16:27 Receive Date: 10-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting											
GFPC, Ra228, Liquid "A	As Received"											
Radium-228	U	0.899	-/-0.975	1.62	3.00	pCi/L			JXC9	09/07/21	1059 2164572	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"									
Radium-226+228 Sum		1.63	+/-1.01			pCi/L		1	AEA	09/07/21	1410 2166495	2
Rad Radium-226												
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"										
Radium-226		0.726	-/-0.279	0.199	1.00	pCi/L			LXPI	08/31/21	1050 2161142	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 79.6 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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: September 8, 2021

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: AF09091 Project: SOOP00119 Sample ID: 552377008 Client ID: SOOP001

Matrix: Ground Water Collect Date: 04-AUG-21 15:02 Receive Date: 10-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	\mathbf{PF}	DF Analy	yst Date	Time Batch	Method		
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "A	As Received"												
Radium-228		1.70	-/-0.884	1.22	3.00	pCi/L		JXC9	09/02/21	1051 2164572	1		
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.08	+/-0.918			pCi/L		l AEA	09/07/21	1410 2166495	2		
Rad Radium-226													
Lucas Cell, Ra226, Liqui	Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		0.379	-/-0.248	0.339	1.00	pCi/L		LXP1	08/31/21	1050 2161142	3		
557 6 11 1 4 1 1	*** * *	C											

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 84.8 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Certificate of Analysis

Report Date: September 8, 2021

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: AF09092 Project: SOOP00119 Sample ID: 552377009 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 04-AUG-21 15:07
Receive Date: 10-AUG-21
Collector: Client

	Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
	Rad Gas Flow Proportion	nal Counting										
	GFPC, Ra228, Liquid "A	s Received"										
	Radium-228	U	0.755	+/-1.33	2.30	3.00	pCi/L		JXC9	09/02/21	1049 2164572	1
Radium-226+Radium-228 Calculation "See Parent Products"												
	Radium-226+228 Sum		0.899	+/-1.35			pCi/L		l AEA	09/07/21	1410 2166495	2
	Rad Radium-226											
Lucas Cell, Ra226, Liquid "As Received"												
	Radium-226	U	0.144	-/-0.218	0.386	1.00	pCi/L		LXP1	08/31/21	1050 2161142	3
	CCT C 31 1 4 1 1		~									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88.4 (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

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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

QC Summary

Report Date: September 8, 2021

Page 1 of 2

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 552377

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2164572									
QC1204892026 552374004 DUP Radium-228	U	1.13	U	1.03	pCi/L	N/A		N/A IXC9	09/02/21 10:49
	Uncertainty	+/-1.34		+/-0.908	Poll	-11.12		1	9510212110113
QC1204892027 LCS									
Radium-228	50.7 Uncertainty			61.9 +/-3.51	pCi/L		122	(75%-125%)	09/02/21 10:49
	3.1			., 2102					
QC1204892025 MB Radium-228			U	1.44	pCi/L				09/02/21 10:49
	Uncertainty			+/-1.13	F				******
Rad Ra-226 Batch 2161142									
QC1204885222 552374001 DUP		0.578		0.504	~C:/T	12.2		/09/ 1000/\ T3/D1	00/21/21 11-22
Radium-226	Uncertainty	+/-0.282		0.506 +/-0.258	pCi/L	13.2		(0% - 100%) LXP1	08/31/21 11:22
QC1204885224 LCS									
Radium-226	53.2			46.3	pCi/L		86.9	(75%-125%)	08/31/21 11:22
	Uncertainty			+/-2.20					
QC1204885221 MB			U	0.143	-C:3				00/21/211122
Radium-226	Uncertainty		U	+/-0.199	pCi/L				08/31/21 11:22
QC1204885223 552374001 MS									
Radium-226	131	0.578		124	pCi/L		94.6	(75%-125%)	08/31/21 11:22
	Uncertainty	+/-0.282		+/-8.24					

Notes:

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

The Qualifiers in this report are defined as follows:

** Analyte is a Tracer compound

< Result is less than value reported</p>

> Result is greater than value reported

BD Results are either below the MDC or tracer recovery is low

FA Failed analysis.

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

QC Summary

Workorder: 552377

Page 2 of 2

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

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

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.

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Radiochemistry Technical Case Narrative Santee Cooper SDG #: 552377

Product: GFPC, Ra228, Liquid

<u>Analytical Method:</u> EPA 904.0/SW846 9320 Modified <u>Analytical Procedure:</u> GL-RAD-A-063 REV# 5

Analytical Batch: 2164572

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

GEL Sample ID#	Client Sample Identification
552377001	AF09059
552377002	AF09060
552377003	AF09058
552377004	AF09072
552377005	AF09073
552377006	AF09077
552377007	AF09075
552377008	AF09091
552377009	AF09092
1204892025	Method Blank (MB)
1204892026	552374004(AF09085) Sample Duplicate (DUP)
1204892027	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.

Technical Information

Recounts

Samples were re-eluted and recounted due to low recovery. The recounts are reported.

Product: Lucas Cell, Ra226, Liquid Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2161142

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

GEL Sample ID#	Client Sample Identification
552377001	AF 0 9059
552377002	AF09060

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552377003	AF09058
552377004	AF09072
552377005	AF09073
552377006	AF09077
552377007	AF09075
552377008	AF09091
552377009	AF09092
1204885221	Method Blank (MB)
1204885222	552374001(AF09074) Sample Duplicate (DUP)
1204885223	552374001(AF09074) Matrix Spike (MS)
1204885224	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, 1204885223 (AF09074MS), 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.

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Chain of Custody



One Riverwood Drive Moneks Corner, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

Customer Ema	Customer Email/Report Recipient:			Date Results Needed by:					Project/Task/Unit #:						Rerun request for any flagged QC				
LCWILLIA	·	@santeec	ooper.com	***************************************	121567 JM02.09. GØI J 36500 Yes								No						
															A	nalysi	s Grou	<u>ıp</u>	
Labworks ID # (Internal use only)		iple Locatio cription	n/	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	• Met • Rep • Mis • Any	Comme thod # sorting limit to, sample inf other notes		RAD 226	KAD 228	TOTAL RAD CALC		
AF09059	WA	P-10		8/2/21	1134	MDE	2	P	G	GΜ	2				×	X	×		
AF09060	wa	rP-10 D	JP		1139				1				· nakana hita sana sana sana sana sana sana sana sa		\coprod				
AF09058	WA	HP-9		11	1339		1	11	<u> </u>	1									
AF09072	W	AP-17-			1512														
AF09073	WA	H-17 1)UP	<u> </u>	1517	1	<u> </u>	11	<u></u>	11_	1				11				
AF09077	W	+P-21		8/3/21	liso	BRT	<u> </u>		1		<u> </u>				11		$\perp \mid \perp \mid$		
AF09075	W	AP-19		1_1_	1627	1	1		<u></u>	<u> </u>	<u> </u>								
AF09091	WL	F-A2-	6	8/4/21	1502	MOG	<u> </u>		_	-	<u> </u>			The transmission of the state o			\perp		
AF09092	WL	F-A2-	6 DUP	<u> </u>	1507	<u> </u>	1	1	<u></u>	1_	<u> </u>		anganga Parlimentangan ang kalandaran kangan ang kalandaran kangan ang kalandaran kangan ang kalandaran kangan	***************************************	<u> </u>				
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Relinquished b	ý:	Employee#	Date	Time	Recen	red by:	E	mployee	#	Date		Time	Sample Re	ceiving (Internal C):	Use On Initial				
Sylgroun	13	15594	8/10/21	1055	SIL			GEL		8/10/		1055		SA TENEDO					
Relinquished b	γ:	Employee#	Date	Time	Recei	red by:	E	mployee	#	Date		Time	1	H: Yes No	•				
SII		EL	8-10-71	1633 Time	13			<u>621</u>		8/10/	********	<i>163</i> 3	Preserva	ive Lot#:					
elinguished b	y: •	Employee#	Date	Tinfe	_ CRecen	red by:	E	mployee	#	Date		Time		graphic facts					
- •	,			and and a second and an analysis of									Date/Tim	e/Init for preser	ative:				
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□ Ag □		OSb	<u> </u>		□ BTEX			Wallbo	III STOLEN		1 0	Ultimate		Ammonia	Tra	os. Oi	l Qual		
DAI D		□Se	DO		☐ Napthal				sum(c	ul -		☐ % Moisi	CONTRACTOR OF THE PARTY OF THE	LOI		ektori eter	tore		
□ As □	(D. 4) - D D (C)	□Sn		TPO4 3-N	□ VOC	AA.		bela UAI	100000000000000000000000000000000000000			□ Ash □ Sulfur		% Carbon	- 4	ciany			
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□ Ba □ Mg □ Ti □ □ □ NO □ NO □ NO □ NO □ NO □ NO □ NO			□ E. Coli □ Total Co	liform		Loi Sol	at met uble N	els Letals		□ Volatile		Sieve	- /b	nsoh	, d. Care				
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□ Cd □	Na	□ Zn	so.		☐ Rad 226			EpH			il o	HGI		Oil & Grease	Ü	V. Cill Inv	C) NI	VI.	
□ Co □	Ni	□Hg			☐ Rad 228 ☐ PCB				londes nele S			Fineness Particulate M	atter	As	1	V.			
O Cr	Pb Pb	□ CrVI						□ Sulfui						TSS	6.6)	DER.			
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GEL	Laboratories	ЦÇ
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SAMPLE RECEIPT & REVIEW FORM

Client: SOOP			SDC	MARICOCAWork Order: 552377							
Received By: BE			Date	e Received: 8//0/2							
Carrier and Tracking Number				FedEx Express FedEx Ground UPS Field Services (Courier Other							
Suspected Hazard Information	Yes	å	*([]	let Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.							
A)Shipped as a DOT Hazardous?		1	Haza	ard 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?			Max	imum Net Counts Observed* (Observed Counts - Area Background Counts):CPM /mR/Hr Classified us: Rud 1							
D) Did the client designate samples are hazardous?	_	\		notation or hazard labels on containers equal client designation. or E is yes, select Hazards below.							
E) Did the RSO identify possible hazards?	<u> </u>		<u> </u>	PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:							
Sample Receipt Criteria	Yes	ž	S _N	Comments/Qualifiers (Required for Non-Conforming Items)							
Shipping containers received intact and scaled?	1			Circle Applicable: Scals broken Damaged container Leaking container Other (describe)							
Chain of custody documents included with shipment?	1			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 Dee Packs Dry Ice None Other: *all temperatures in recorded in Celsius TEMP:							
Daily check performed and passed on IR temperature gun?	1			Temperature Device Serial #: _IR2-21 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?	7			Sample ID's and Containers Affected: If Preservation added, Lot#:							
Do any samples require Volatile Analysis?			\	If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No) Are liquid VOA vials free of headspace? YesNoNA 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?	1			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)							
Number of containers received match number indicated on COC?	/			Circle Applicable: No container count on COC Other (describe)							
Are sample containers identifiable as GEU provided by use of GEL labels?	1										
13 COC form is properly signed in relinquished/received sections?] \			Circle Applicable: Not relinquished Other (describe)							
Comments (Use Continuation Form if needed): PM (or PN	(A) n	evier	e: Init	ials 6113 Date 8/12/21 Page of							

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 08 September 2021

State Alabama	Certification 42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	
	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
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	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Virginia NELAP	460202
-	
Washington	C780











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843,556,8171 F 843,766,1178

gel.com

September 07, 2021

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

Re: ABS Lab Analytical Work Order: 552374

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 10, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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,

Nina Gampe for Julie Robinson Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 552374 GEL Work Order: 552374

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
- 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	Mim Ange	
ice viewed by		

Page 2 of 13 SDG: 552374

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

Certificate of Analysis

Report Date: September 7, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti ABS Lab Analytical Project:

Client Sample ID: AF09074 Project: SOOP00119 Sample ID: 552374001 Client ID: SOOP001

Matrix: Ground Water Collect Date: 04-AUG-21 12:16 Receive Date: 10-AUG-21 Collector: Client

	Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	yst Date	Time Batch	Method
	Rad Gas Flow Proportion	nal Counting										
	GFPC, Ra228, Liquid "A	s Received"										
	Radium-228	U	1.45	-/-0.960	1.47	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1
Radium-226+Radium-228 Calculation "See Parent Products"												
	Radium-226+228 Sum		2.03	+/-1.00			pCi/L		l AEA	09/07/21	1410 2166495	2
	Rad Radium-226											
Lucas Cell, Ra226, Liquid "As Received"												
	Radium-226		0.578	-/-0.282	0.323	1.00	pCi/L		LXP1	08/31/21	0839 2161142	3
	CCT (2.33 1 4 3 -2		C									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 88.1 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 3 of 13 SDG: 552374

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

Certificate of Analysis

Report Date: September 7, 2021

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: AF09084 Project: SOOP00119 Sample ID: 552374002 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 05-AUG-21 10:30
Receive Date: 10-AUG-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method	
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid '	'As Received"											
Radium-228	U	0.339	+/-1.37	2.43	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1	
Radium-226+Radium-2	228 Calculatio											
Radium-226+228 Sum		1.74	+/-1.44			pCi/L		l AEA	09/07/21	1410 2166495	2	
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.40	-/-0.432	0.305	1.00	pCi/L		LXPI	08/31/21	0839 2161142	3	
	3 3 2 3 3											

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 86.4 (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

Page 4 of 13 SDG: 552374

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

Certificate of Analysis

Report Date: September 7, 2021

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: AF09090 Project: SOOP00119 Sample ID: 552374003 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 05-AUG-21 11:38
Receive Date: 10-AUG-21
Collector: Client

	Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	yst Date	Time Batch	Method		
	Rad Gas Flow Proportional Counting													
	GFPC, Ra228, Liquid "A	s Received"												
	Radium-228	U	0.981	-/-0.872	1.40	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1		
Radium-226+Radium-228 Calculation "See Parent Products"														
	Radium-226+228 Sum		1.91	+/-0.932			pCi/L		l AEA	09/07/21	1410 2166495	2		
	Rad Radium-226													
	Lucas Cell, Ra226, Liqui	id "As Receiv	ved"											
	Radium-226		0.929	-/-0.326	0.215	1.00	pCi/L		LXPI	08/31/21	0943 2161142	3		
	CCT (2.33 1 4 3)		~											

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 81.5 (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

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 5 of 13 SDG: 552374

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

Certificate of Analysis

Report Date: September 7, 2021

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: AF09085 Project: SOOP00119 Sample ID: 552374004 Client ID: SOOP001

Ground Water Matrix: Collect Date: 05-AUG-21 12:46 Receive Date: 10-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method	
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "	'As Received"											
Radium-228	U	1.13	+/-1.34	2.26	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1	
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		1.61	+/-1.36			pCi/L		1 AEA	09/07/21	1410 2166495	2	
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		0.479	-/-0.237	0.241	1.00	pCi/L		LXPI	08/31/21	0943 2161142	3	
		~										

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 80.7

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

Page 6 of 13 SDG: 552374

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

QC Summary

Report Date: September 7, 2021

Page 1 of 2

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 552374

Rad Gas Flow Batch 2164572	
QC1204892026 552374004 DUP Radium-228 U 1.13 U 1.03 pCi/L N/A N/A JXC9 09/02/21 1	10.40
Radium-228 U 1.13 U 1.03 pCi/L N/A N/A JXC9 09/02/21 Uncertainty +/-1.34 +/-0.908	10:49
QC1204892027 LCS Radium-228 50.7 61.9 pCi/L 122 (75%-125%) 09/02/21	10-40
Uncertainty +/-3.51	10.49
QC1204892025 MB Radium-228 U 1.44 pCi/L 09/02/21 1	10-40
Uncertainty +/-1.13	10.42
Rad Ra-226 Batch 2161142	
QC1204885222 552374001 DUP	
Radium-226 0.578 0.506 pCi/L 13.2 (0% - 100%) LXP1 08/31/21 1 Uncertainty +/-0.282 +/-0.258	11:22
Oncertainty 17-0.202 17-0.256	
QC1204885224 LCS	
Radium-226 53.2 46.3 pCi/L 86.9 (75%-125%) 08/31/21 1 Uncertainty +/-2.20	11:22
Glicetaning 7, 2,20	
QC1204885221 MB	
Radium-226 U 0.143 pCi/L 08/31/21 1 Uncertainty +/-0.199	11:22
Oncerumy 7, 0.122	
QC1204885223 552374001 MS	
Radium-226 131 0.578 124 pCi/L 94.6 (75%-125%) 08/31/21 1 Uncertainty +/-0.282 +/-8.24	11:22

Notes:

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

The Qualifiers in this report are defined as follows:

** Analyte is a Tracer compound

< Result is less than value reported</p>

> Result is greater than value reported

BD Results are either below the MDC or tracer recovery is low

FA Failed analysis.

Page 7 of 13 SDG: 552374

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

QC Summary

Workorder: 552374

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

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

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.

Page 8 of 13 SDG: 552374

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 552374

Product: GFPC, Ra228, Liquid

<u>Analytical Method:</u> EPA 904.0/SW846 9320 Modified <u>Analytical Procedure:</u> GL-RAD-A-063 REV# 5

Analytical Batch: 2164572

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

GEL Sample ID#	Client Sample Identification
552374001	AF09074
552374002	AF09084
552374003	AF09090
552374004	AF09085
1204892025	Method Blank (MB)
1204892026	552374004(AF09085) Sample Duplicate (DUP)
1204892027	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.

Technical Information

Recounts

Samples were re-eluted and recounted due to low recovery. The recounts are reported.

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2161142

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

GEL Sample ID#	Client Sample Identification
552374001	AF09074
552374002	AF09084
552374003	AF09090
552374004	AF09085
1204885221	Method Blank (MB)
1204885222	552374001(AF09074) Sample Duplicate (DUP)
1204885223	552374001(AF09074) Matrix Spike (MS)

Page 9 of 13 SDG: 552374

1204885224 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, 1204885223 (AF09074MS), 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.

Page 10 of 13 SDG: 552374

Chain of Custody

552374



Santes Coope One Riverwood Driv Moneks Comer, SC 2946 Phone: (843)761-8000 Ext. 514) Fax: (843)761-417:

Custome	Customer Email/Report Recipient:					Date Results Needed by:					Project/Task/Unit #:				Unit #:	R	Rerun request for any flagged Q				J QC
LCWIL	LA		@santeed	ooper.com			, ,			1215	56	7	/ JM	102.0	7.6Ø1	1 36500	Yes	No			
***************************************				oop critoii.			1 surreumprisenment	***************************************											naher	s Grou	,,,,
Labworks		T. 6	NAMES OF THE STREET	Mark days are also a		100			1577		1			1 73.7		Comments		<u>. </u>	liaiyş T	,	
(internal u			pple Locatio cription		Collection Date		Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass- G/Plastic-D)		Grab (G) or Composite (C)	Matrix(see below)	Preservative (see	Met Rep Mis Any	thod # sorting limit c. sample info v other notes		RAD 226	PAD 228	TETAL PAD CALL	
AF-090	74	WA	4P-18	<u>, in a faire ann an /u>	8/4	t/21	1216	MDG	2	P		G	GW	2		have in the second second second second second second second second second second second second second second s	ing Maria at Sangar Maria at Antonomica Processor	×	Х	X	
AF090	84	WE	3W-A1-	1	8/5/21		1030	BRT													
AF090	90	WL	F- A1-5	D			1138			<u> </u>											
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	CI				SAMPLE RECEIPT & REVIEW FORM								
Client:	S00P			SDC	HARCOC/Work Order: 652374								
Receive	_{i By:} BE			Dat	e Received: 8/10/2	• •							
Car	rier and Tracking Number				FedEx Express FedEx Ground UPS Field Services Cou	rier Other							
Suspecte	d Hazard Information	Yes	S,	*1F P	let Counts > 100epm on samples not marked "radioactive", contact the Radiation Safety Grou	p for further investigation.							
4301:	d as a DOT Hazardous?		1	Haza	ard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? YesNo								
B) Did th	e client designate the samples are to be		1	coc	notation or radioactive stickers on containers equal elient designation.								
C) Did th	e RSO classify the samples as		1	Max	um Net Counts Observed* (Observed Counts - Area Background Counts):CPM/mR/Hr Classified as: Rad 1								
radioactiv	e client designate samples are hazardous?		1	COC	notation or hazard labels on comminers equal client designation.								
	e RSO identify possible hazards?		1	If D	or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:								
	Sample Receipt Criteria	, X	ž	ĝ	Comments/Qualifiers (Required for Non-Conforming Iter	ns)							
1 Ship	Shipping containers received intact and sealed?				Circle Applicable: Seals broken Damaged container Leaking container Other (describe)								
	in of custody documents included a shipment?	1			Circle Applicable: Client contacted and provided COC COC created upon receipt								
	pples requiring cold preservation $\sin (0 \le 6 \deg. C)$?*				Preservation Method Wet Ice Ice Packs Dry Ice None Other: *all temperatures are recorded in Celsius	темр: 5							
	ly check performed and passed on IR perature gun?	1			Temperature Device Serial #: <u>(R2-21</u> Secondary Temperature Device Serial # (If Applicable):								
5 San	aple containers intact and sealed?)			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)								
	ples requiring chemical preservation roper pH?		-		Sample ID's and Containers Affected: If Preservation added, Loui:								
7	Do any samples require Volatile Analysis?				If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to V Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select Are liquid VOA vials free of headspace? YesNoNA Sample ID's and containers affected:								
8 San	ples received within holding time?	K			ID's and tests affected:	; ;							
	ple ID's on COC match ID's on les?				ID's and containers affected:	enterphilia di ing dinagani ngambana ana ana ana ana ana angambana ana ana angambana angambana angambana ana a O							
	e & time on COC match date & time oottles?	/			Circle Applicable: No dates on containers No times on containers COC missing info	Other (describe)							
nun	nber of containers received match ober indicated on COC?				Circle Applicable: No container count on COC Other (describe)								
GE	sample containers identifiable as L provided by use of GEL labels?				,								
	C form is properly signed in nequished/received sections?	1			Circle Applicable: Not relinquished Other (describe)								
Commen	ts (Use Continuation Form if needed):	[4]	America		als 613 Date 8/12/21 Page of								

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 07 September 2021

State Alabama	Certification 42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kausas NELAP	E-10332
Kentucky SDWA	90129
	90129
Kentucky Wastewater	.
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
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	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Vermont Virginia NELAP	460202
_	
Washington	C780











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

September 13, 2021

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

Re: ABS Lab Analytical Work Order: 552785

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 13, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 552785 GEL Work Order: 552785

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
- 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.

	Julie	Robinson	
Reviewed by			

Page 2 of 15 SDG: 552785

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

Certificate of Analysis

Report Date: September 13, 2021

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: AF09056 Project: SOOP00119 Sample ID: 552785001 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 10-AUG-21 15:00
Receive Date: 13-AUG-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method	
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid	'As Received"											
Radium-228		3.70	+/-1.59	2.37	3.00	pCi/L		JXC9	09/02/21	1049 2164572	1	
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		4.82	+/-1.63			pCi/L		l AEA	09/07/21	1410 2166495	2	
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.12	-/-0.365	0.321	1.00	pCi/L		LXPI	08/31/21	1050 2161142	3	
	3 3 2 3 3	~										

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88.1 (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

Page 3 of 15 SDG: 552785

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

Certificate of Analysis

Report Date: September 13, 2021

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: AF09076 Project: SOOP00119 Sample ID: 552785002 Client ID: SOOP001

Matrix: Ground Water Collect Date: 10-AUG-21 15:36 Receive Date: 13-AUG-21 Collector: Client

	Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method		
	Rad Gas Flow Proportional Counting													
	GFPC, Ra228, Liquid "A	s Received"												
	Radium-228		1.62	+/-1.03	1.58	3.00	pCi/L		JXC9	09/02/21	1049 2164572	1		
Radium-226+Radium-228 Calculation "See Parent Products"														
	Radium-226+228 Sum		2.16	+/-1.08			pCi/L		l AEA	09/07/21	1410 2166495	2		
	Rad Radium-226													
	Lucas Cell, Ra226, Liqui	id "As Receiv	ved"											
	Radium-226		0.539	-/-0.311	0.390	1.00	pCi/L		LXPI	08/31/21	1050 2161142	3		
	CCT C 33 1 4 3		~											

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 88.6 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 4 of 15 SDG: 552785

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

Certificate of Analysis

Report Date: September 13, 2021

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:
 AF09086
 Project:
 SOOP00119

 Sample ID:
 552785003
 Client ID:
 SOOP001

Matrix: Ground Water
Collect Date: 11-AUG-21 13:35
Receive Date: 13-AUG-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid	"As Received"										
Radium-228		2.43	+/-1.39	2.14	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1
Radium-226+Radium-	228 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		3.68	+/-1.44			pCi/L		l AEA	09/07/21	1410 2166495	2
Rad Radium-226											
Lucas Cell, Ra226, Lic	Lucas Cell, Ra226, Liquid "As Received"										
Radium-226		1.26	-/-0.389	0.229	1.00	pCi/L		LXPI	08/31/21	1122 2161142	3
TEL C 11 ' A 1 4'	135 1 1	c	1								

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 85.4 (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

Page 5 of 15 SDG: 552785

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

Certificate of Analysis

Report Date: September 13, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti ABS Lab Analytical Project:

Client Sample ID: AF09087 Project: SOOP00119 Sample ID: 552785004 Client ID: SOOP001

Matrix: Ground Water Collect Date: 11-AUG-21 12:05 Receive Date: 13-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	\mathbf{PF}	DF Analy	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radiun-228		1.87	+/-1.14	1.75	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		3.17	+/-1.20			pCi/L		l AEA	09/07/21	1410 2166495	2
Rad Radium-226											
Lucas Cell, Ra226, Liqui	id "As Receiv	ved"									
Radium-226		1.30	-/-0.380	0.212	1.00	pCi/L		LXP1	08/31/21	1122 2161142	3
CCT C 11 1 4 1 1	232.3	~									

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 86.1 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 6 of 15 SDG: 552785

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

Certificate of Analysis

Report Date: September 13, 2021

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: AF09088 Project: SOOP00119 Sample ID: 552785005 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 11-AUG-21 11:07
Receive Date: 13-AUG-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid "As Received"											
Radium-228	U	2.00	+/-1.29	2.02	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1
Radium-226+Radium-2	28 Calculation	n "See Pa	rent Products"								
Radium-226+228 Sum		2.62	+/-1.33			pCi/L		l AEA	09/07/21	1410 2166495	2
Rad Radium-226											
Lucas Cell, Ra226, Liquid "As Received"											
Radium-226		0.626	-/-0.324	0.417	1.00	pCi/L		LXPI	08/31/21	1122 2161142	3

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 81.8 (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

Page 7 of 15 SDG: 552785

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Certificate of Analysis

Report Date: September 13, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti ABS Lab Analytical Project:

Client Sample ID: AF09089 Project: SOOP00119 Sample ID: 552785006 Client ID: SOOP001

Matrix: Ground Water Collect Date: 11-AUG-21 11:12 Receive Date: 13-AUG-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method	
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	1.40	+/-1.05	1.66	3.00	pCi/L		JXC9	09/02/21	1050 2164572	1	
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		1.60	+/-1.06			pCi/L		l AEA	09/07/21	1410 2166495	2	
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226	U	0.205	-/-0.174	0.245	1.00	pCi/L		LXPI	08/31/21	1122 2161142	3	

The following Analytical Methods were performed:

Method Description Analyst Comments

1 EPA 904.0/SW846 9320 Modified

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits 86 (15%-125%)

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

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

Page 8 of 15 SDG: 552785

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

QC Summary

Report Date: September 13, 2021

Santee Cooper P.O. Box 2946101

OC03

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 552785

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anist	Date Time
Rad Gas Flow Batch 2164572									
QC1204892026 552374004 DUP Radium-228	U Uncertainty	1.13 +/-1.34	U	1.03 +/-0.908	pCi/L	N/A		N/A JXC9	09/02/21 10:49
QC1204892027 LCS Radium-228	50.7 Uncertainty			61.9 +/-3.51	pCi/L		122	(75%-125%)	09/02/21 10:49
QC1204892025 MB Radium-228	Uncertainty		U	1.44 +/-1.13	pCi/L				09/02/21 10:49
Rad Ra-226 Batch 2161142									
QC1204885222 552374001 DUP Radium-226	Uncertainty	0.578 +/-0.282		0.506 +/-0.258	pCi/L	13.2		(0% - 100%) LXP1	08/31/21 11:22
QC1204885224 LCS Radium-226	53.2 Uncertainty			46.3 +/-2.20	pCi/L		86.9	(75%-125%)	08/31/21 11:22
QC1204885221 MB Radium-226	Uncertainty		U	0.143 +/-0.199	pCi/L				08/31/21 11:22
QC1204885223 552374001 MS Radium-226	131 Uncertainty	0.578 +/-0.282		124 +/-8.24	pCi/L		94.6	(75%-125%)	08/31/21 11:22

Notes:

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

The Qualifiers in this report are defined as follows:

** Analyte is a Tracer compound

< Result is less than value reported</p>

> Result is greater than value reported

BD Results are either below the MDC or tracer recovery is low

FA Failed analysis.

Page 9 of 15 SDG: 552785

Page 1 of 2

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

QC Summary

Workorder: 552785

Page 2 of 2

Parmname

NOM Sample Qual QC Units RPD% REC% Range AnIst Date Time

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

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.

Page 10 of 15 SDG: 552785

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 552785

Product: GFPC, Ra228, Liquid

<u>Analytical Method:</u> EPA 904.0/SW846 9320 Modified <u>Analytical Procedure:</u> GL-RAD-A-063 REV# 5

Analytical Batch: 2164572

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

GEL Sample ID#	Client Sample Identification
552785001	AF09056
552785002	AF09076
552785003	AF09086
552785004	AF09087
552785005	AF09088
552785006	AF09089
1204892025	Method Blank (MB)
1204892026	552374004(AF09085) Sample Duplicate (DUP)
1204892027	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.

Technical Information

Recounts

Samples were re-eluted and recounted due to low recovery. The recounts are reported.

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2161142

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

GEL Sample ID#	Client Sample Identification
552785001	AF09056
552785002	AF09076
552785003	AF 0 9086
552785004	AF 0 9087
552785005	AF09088

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552785006	AF09089
1204885221	Method Blank (MB)
1204885222	552374001(AF09074) Sample Duplicate (DUP)
1204885223	552374001(AF09074) Matrix Spike (MS)
1204885224	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

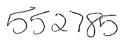
The matrix spike, 1204885223 (AF09074MS), aliquot was reduced to conserve sample volume.

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.

Page 12 of 15 SDG: 552785

Chain of Custody





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

Custome	ustomer Email/Report Recipient:		Date Results Needed by:				Project/Task/Unit #:					Rer	Rerun request for any flagged QC				
LCWIL	LIA	@santee	cooper.com		//			121	567.	/ JM	102.0	9.Gø1		Yes	No		
															A	nalysi	s Group
Labworks (Internal u only)		Sample Location Description	on/	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)	• N • R • N	Comments lethod # eporting limit lise, sample info ny other notes		RAD 226	RAD 229	TOTAL RAD CALC
AF090	56	WAP -7		8/10/2	1 1500	MDG	2	P	G	GW	2				×	×	·×
4F0907A	FG	WAP-20		1	1236	上		1			1					1	
AF090	86	WLF-A1-2		8/11/21	1835	MOS											
0907A	87	WLF-AI-3	}		1205	١											
AF-090	88	WLF-AI-4	ļ-		1167												
A-F090	89	WLF-AI-4	- Dup	<u> </u>	1112		1										
	110000		**************************************														

		· · · · · · · · · · · · · · · · · · ·															
Relinquis 49191000	1	Employee#	Date 8/13/21	Time	Receiv K. S	red by:	Ei	mployee GEL		Date 		Time	Sample Receivii TEMP (°C):		se Oni nitial	(y) :	
Kelinquis	hed by:	Employee#	Date	Time	Receiv	ed by:	Er	Linpoyee a Date time				Correct pH:	Correct pH: Yes No				
Relinquis	hed by:	Employee#	Date Date	321 Time	Receiv	ed by:		jEU nployee		/13/2 Date		(ろlQ\ Time	Date/Time/Init		tive:		
		TALS (all)	Niceter	ients							T.						
□Ag	□ Cu	□Sb	Troc		MIS DBTEX	<u>) L.</u>		Valibo	<u>osun</u> ard	L	1	<u>Cóa</u> Ultimate		rash nonia		<u> 21</u>	Oral.
□ Al □ As	□ Fe	□ Se □ Sn	Doc		☐ Napthale				am(al	7		☐ % Moi	sture LO		1		
□ B		□ Sr	NH3	PO4 -N	□ voc			belo All	V4			□ Ash □ Sulfur	型% C E Mine		1	tilli.	
□ Ba	O Mg		 ↓ iF		□ Oil & Gr □ E. Coli	ease		11/4	il metal			∪ BTUs		analysis	1) is		Security Co.
□ Be	□Mr		(C) ∴ NO2		☐ Total Co	liform		_ i Sui	ible Mê	tals		☐ Volatil	e Matter 📗 🗓 Sievi	e la	1)	egeive:	it Kabita
□ Ca			Bi Bi		□ pH □ Dissolve	d As			is /CaS Noisnae		See Conversion	□ CHN her Tests	: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	oisture			
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□ Co □ Cr	□ Ni □ Pb	□ Hg □ CrVI	7.0		□ PCB			i Part	icle Siz	U =		articulate N	Aatter As UTSS		7.OI	1 (2	
	- 1	J. W. The						Sulfin					•				

	I charatage					,
	CELL Laboratories LLC				SAMPLE RECEIPT & REVIEW FORM	
Cli	ent: 500P			SDC	HARICOC/Work Greger: 552785	
Rec	eived By: BE / NPG			ı	e Received: 91/3/2	* * * * * * * * * * * * * * * * * * * *
					FedEx Express FedEx Ground UPS Field Services Courier	9ther
	Carrier and Tracking Number				and control of the co	·
	3				COUNTR	
		T .			GEL COURIER	
Sus	pected Hazard Information	Yes	2	*1f P	set Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for fu	orther investigation.
			Name of	Haza	ard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes No	
-	hipped as a DOT Hazardous?	 -	\vdash			
	Did the client designate the samples are to be ived as radioactive?		~		notation or radioactive stickers on containers equal client designation.	
	Did the RSO classify the samples as oactive?		N.	Max	imum Net Counts Observed* (Observed Counts - Area Background Counts): Classified as: Rad 1 Rad 2 Rad 3	₹/Hr
			8	co	C notation or hazard labels on containers equal client designation.	
ו (ט	Did the client designate samples are hazardous?	╁	-	ND	or E is yes, select Hazards below.	
E) I	Did the RSO identify possible hazards?	L	1		PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:	
	Sample Receipt Criteria	Xes	Ž	12	Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	V			Circle Applicable: Scals broken Damaged container Leaking container Other (describe)	
2	Chain of custody documents included with shipment?	V			Circle Applicable: Client contacted and provided COC COC created upon receipt	V
3	Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$?*	/	1		Preservation Method Wet Ice Ice Packs Dry Ice None Other: *all temperatures are recorded in Celsius TE	MP: 3 - GPASA
4	Daily check performed and passed on IR temperature gun?	1			Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):	
5	Sample containers intact and sealed?	V			Circle Applicable: Scals broken Damaged container Leaking container Other (describe)	
6	Samples requiring chemical preservation at proper pH?	7			Sample ID's and Containers Affected: If Preservation added, Lot#:	
		╁╴		-	If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Fr	eczer)
7.	Do any samples require Volatile			I_{\checkmark}	Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No) Are liquid VOA vials free of headspace? YesNoNA	
,	Analysis?				Sample (D's and containers affected:	
3	Samples received within holding time?	V		-	ID's and tests affected:	
<u> </u>	Sample 1D's on CCC match 1D's on	Same	4		ID's and containers affected:	*
9	bottles?	1		4		
10	Date & time on COC match date & time on bottles?	1			Circle Applicable: No dates on containers No times on containers COC missing info Other (iescribe)
11	Number of containers received match number indicated on COC?	V		7	Circle Applicable: 130 container count on COC Other (describe)	
12	Are sample containers identifiable as	V				
13	COC form is properly signed in	V			Circle Applicable: Not relinquished Other (describe)	.V v
Cor	nments (Use Continuation Form if needed):					
	*					
]						
-						
	and a support					

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 13 September 2021

State Alabama	Certification 42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
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Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
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	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
	460202
Virginia NELAP	
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.)

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 1	29.44	4.16	4- 24	2/15/2021	1337	25.18

Drawdown: 4.19 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1306	14.57	4.12	310	88	8.1	3.14
1311	14.35	4.15	271	86	6.5	1.04
1316	14.3	4.15	258	86	0.9	0.85
1321	14.36	4.16	247	86	0	0.74
1326	14.39	4.17	240	85	0	0.7
1331	14.22	4.2	231	85	0	0.67
1334	14.16	4.2	228	85	0	0.67
1337	14.13	4.2	227	85	0	0.65

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 1	29.44	6.14	4- 24	7/20/2021	1228	25.18

Drawdown: 6.15 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1154	27.12	4.24	166	89	1.2	2.63
1159	27.59	4.19	159	97	6.3	1.17
1204	27.7	4.18	158	94	3.9	1.71
1209	27.63	4.19	153	93	2.6	1.9
1214	27.78	4.21	144	92	2.3	1.64
1219	27.94	4.24	136	91	5.2	0.63
1222	28.18	4.22	139	90	1.7	0.49
1225	28	4.23	136	89	1	0.47
1228	28.33	4.24	133	88	0.9	0.44

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WBW - 1	31.97	3.32	7- 17	2/15/2021	1221	19.77

Drawdown: 3.55 depth to GW (ft)

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1120	17.95	4.37	212	32	24.4	1.46
1125	17.41	4.27	229	27	0	1.04
1130	16.92	4.24	234	27	1.3	0.9
1135	16.47	4.21	235	27	0	0.79
1140	16.08	4.21	239	27	0_	0.86
1145	15.79	4.21	250	27	0	0.85
1148	15.64	4.2	260	27	0	0.83
1151	15.5	4.19	268	27	0	0.82
1154	15.35	4.2	277	27	0	0.81
1157	15.23	4.2	285	27	0	0.79
1200	15.13	4.19	294	28	0.	0.78
1203	15.03	4.19	303	28	0	0.73
1206	14.94	4.2	310	28	0	0.75
1209	14.84	4.2	317	28	0	0.76
1212	14.74	4.19	324	28	0	0.73
1215	14.64	4.2	329	28	0	0.72
1218	14.54	4.2	333	28	0	0.73
1221	14.41	4.2	339	28	0	0.72

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WBW - 1	31.97	18.27	7- 17	7/20/2021	1107	19.8

Drawdown: 17.79 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1036	21.7	5.05	75	77	234	6.5
1041	22.27	4.82	92	63	32	1.39
1046	22.81	4.72	107	53	13.8	1.05
1051	23.34	4.75	117	48	7.4	0.87
1056	23.79	4.78	120	46	2.1	0.77
1101	24.19	4.76	120	43	0.2	0.72
1104	24.47	4.76	120	43	0	0.71
1107	24.72	4.77	121	42	0	0.69

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 9	28.04	8.83	9- 19	2/23/2012	1249	22.22

Drawdown: 8.86 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1218	18.59	6.27	5	348	3.7	9.25
1223	18.22	6.11	14	303	3.5	1.08
1228	18.18	6.05	17	296	6.4	0.73
1233	18.72	5.8	26	456	0	0.66
1238	18.81	5.71	24	661	0	0.53
1243	18.83	5.69	22	722	0	0.47
1246	18.94	5.69	20	742	0	0.46
1249	18.93	5.68	17	748	0	0.45

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 9	28.04	9.7	9- 19	8/2/2021	1339	22.23

Drawdown: 9.76 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1308	29.21	6.01	-22	776	6.3	9.95
1313	29.18	5.89	-44	1170	2.1	0.62
1318	29.03	5.9	-50	1200	4.6	0.4
1323	28.74	5.93	-57	1190	5.3	0.34
1328	28.42	5.94	-61	1170	5.4	0.33
1333	28.18	5.96	-65	1170	4.9	0.31
1336	28.31	5.96	-67	1160	4.6	0.29
1339	28.14	5.97	-69	1160	4.2	0.29

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 10	26.11	4.36	4-24	2/17/2021	1357	26.81

Drawdown: 4.35 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1329	17.28	6.26	31	3860	195	2.04
1334	16.99	6.33	-8	3920	92.9	0.87
1339	17.28	6.36	-25	3920	72	0.78
1344	17.4	6.38	-37	3920	60.8	0.66
1349	17.25	6.38	-41	3920	40.3	0.59
1354	17.18	6.38	-44	3930	39.8	0.56
1357	17.41	6.38	-46	3910	36.6	0.54

Comments/Conditions: Duplicate at 1402

Samples were collected by Trey West and Bryan Brase

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 10	26.11	4.98	4-24	8/2/2021	1134	26.92

Drawdown: 5.44 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1106	23.36	6.38	-106	4080	15.5	7.48
1111	23.85	6.4	-108	4110	10.9	0.9
1116	23.88	6.41	-109	4090	5.2	0.65
1121	24.03	6.42	-110	4080	4.6	0.56
1126	24.36	6.43	-110	4040	4.6	0.49
1131	24.6	6.44	-111	4020	4.2	0.45
1134	24.72	6.44	-110	4000	4.2	0.43

Comments/Conditions:

DUP @ 1139

Wasps at Well

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 17	29.27	8.89	9- 19	3/2/2021	1048	22.31

Drawdown: 8.93 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1017	17.48	5.93	117	588	0.1	4.4
1022	16.94	5.93	104	595	0	1.45
1027	16.97	5.9	100	606	0	0.88
1032	17.13	5.88	96	634	1.4	0.68
1037	17.1	5.88	93	669	0.2	0.64
1042	17.12	5.87	88	706	0	0.64
1045	17.21	5.87	86	727	0	0.64
1048	17.22	5.88	84	743	0	0.61

Comments/Conditions: duplicate taken at 1053

Samples were collected by Trey West, Damien Johnson, Thomas Guerry

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP-17	26.88	6.98	9-19	4/8/2021	1331	21.51

Drawdown: 6.98 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1303	23.78	6.38	68	1130	11.4	2.48
1308	24.07	6.27	51	1160	10.8	0.84
1313	24.27	6.23	42	1150	11.8	0.58
1318	24.19	6.22	34	1140	5.2	0.48
1323	24.12	6.22	28	1150	2.1	0.43
1328	23.94	6.22	22	1150	0	0.4
1331	23.83	6.22	19	1140	0	0.39

Comments/Conditions: Duplicate taken at 1336

Samples were collected by Melanie Goings and Trey West

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 17	26.88	6.24	9- 19	8/2/2021	1512	21.94

Drawdown: 6.28 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1444	33.07	6.24	-50	813	0	3.91
1449	30.96	5.8	-33	1530	0	0.63
1454	30.34	5.78	-35	1620	7	0.47
1459	29.69	5.8	-41	1640	10.4	0.41
1504	29.37	5.8	-43	1660	11.6	0.41
1509	29.31	5.82	-48	1650	12.6	0.39
1512	29.17	5.82	-49	1660	12.7	0.39

Comments/Conditions:

DUP @ 1517

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 18	43.05	22.72	13.5- 23.5	2/16/2021	1133	26.25

Drawdown: 23 depth to GW (ft)

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1059	20.69	6.43	205	1860	21.1	2.2
1104	20.88	6.4	213	1730	11.7	1.122
1109	20.85	6.39	181	1690	9.1	1.05
1114	20.86	6.37	148	1660	6	0.93
1119	20.94	6.37	119	1640	4.5	0.88
1124	21.01	6.36	103	1630	4.1	0.83
1127	21.03	6.36	96	1620	3.4	0.8
1130	21.06	6.36	91	1610	2.7	0.78
1133	21.07	6.37	87	1610	2.7	0.76

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 18	43.05	19.08	13.5- 23.5	8/4/2021	1216	26.25

Drawdown: 19.2 depth to GW (ft)

Time	Temp round 1 (celcius)	pH round 1	Eh ORP	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen
1151	` ,	(units)	(mV)		`	(ppm)
1151	23.05	5.14	156	1700	170	1.26
1156	23.54	5.11	161	1690	32.9	0.91
1201	23.67	5.1	167	1700	10.4	0.75
1206	23.8	5.12	170	1690	14.7	0.66
1211	23.95	5.17	167	1670	9.7	0.61
1216	24.05	5.21	166	1680	8.4	0.56
_						

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 19	43.39	20.45	14-24	2/16/2021	1425	26.89

Drawdown: 20.76 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1348	20.98	6.45	9	1770	227	1.98
1353	21.37	6.37	5	1760	122	0.95
1358	21.51	6.35	5	1750	58.7	0.76
1403	21.78	6.33	4	1740	56.1	0.62
1408	21.85	6.31	4	1740	37.5	0.54
1413	22.12	6.3	4	1740	26.1	0.49
1416	22.18	6.3	3	1750	29.7	0.48
1419	22.26	6.3	3	1740	17.9	0.47
1422	22.44	6.31	2	1740	21.3	0.45
1425	22.54	6.32	1	1740	22	0.45

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 19	43.39	22.35	14-24	8/3/2021	1627	27.1

Drawdown: 22.46 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1556	23.51	6.3	-17	1750	17.8	4.39
1601	23.79	6.26	-24	1770	13.8	0.88
1606	23.58	6.26	-28	1780	16	0.65
1611	23.71	6.29	-39	1830	12.2	0.57
1616	23.82	6.31	-46	1870	12	0.55
1621	23.82	6.35	-54	1890	12.1	0.52
1624	23.73	6.36	-57	1900	10	0.5
1627	23.64	6.37	-59	1910	6.8	0.48

Comments/Conditions:

Samples were collected by Ben Taylor and Connor Smalling

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 20	43.08	18.79	9- 19	2/16/21	1530	22.36

Drawdown: 18.96 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
Time	round 1	round 1	ORP	round 1	ranolalty	Oxygen
					OUTIN	
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1510	22.76	5.96	58	369	65.6	1.52
1515	22.4	5.89	60	341	5.5	0.88
1520	21.88	5.88	62	328	2.9	0.89
1525	21.54	5.85	66	331	2.2	0.88
1530	21.32	5.84	65	333	1.6	0.89

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 20	43.08	21.78	9- 19	8/3/2021		22.42

Drawdown: depth to GW (ft)

Time	Temp	pН	Εħ	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1307	24.89	6.21	-79	785	270	0.81
1312	25.07	6.22	-82	784	279	0.51
1317	25.19	6.24	-84	784	585	0.49

Comments/Conditions:

Well Ran Dry at 1317

Since aquifer refills well and we want the equilibrium aquifer water, sample was taken automatically after we let well refill.

Came back to well around 1430 on 08/03/2021 and got 2/3 of a bottle.

Came back to well on 08/04/2021 @ 1042 and collected another bottle.

Came back to well on 08/04/2021 @ 1352 and collected a little more water, tried again at 1403

Came back to well on 08/04/2021 @ 1556 and collected water from the well,

Came back to well on 08/05/2021 @ 0945 and collected water

Came back to well on 08/05/2021 @ 1310 and collected more water from well

Came back to well on 08/10/2021 @ 1051 and collected more water from well

Came back to well on 08/10/2021 @ 1536 and collected more water from well

Samples were collected by Ben Taylor and Connor Smalling

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 21	43.06	18.86	14- 24	2/17/2021	1235	27.05

Drawdown: 19.7 depth to GW (ft)

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1155	18.19	6.38	39	482	8.4	14.39
1200	17.89	6.27	39	482	3.7	1.43
1205	17.92	6.23	38	475	1.2	0.93
1210	17.9	6.23	36	473	0	0.76
1215	17.76	6.23	36	467	0	1.38
1220	17.66	6.24	37	467	0	2.35
1223	17.66	6.24	37	467	0	2.35
1226	17.83	6.2	36	471	0	0.77
1229	17.76	6.19	36	474	0	0.65
1232	17.76	6.19	36	476	0	0.59
1235	17.82	6.2	35	479	0	0.57

Comments/Conditions:

Samples were collected by Trey West and Bryan Brase

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 21	43.06	21.46	14- 24	8/3/2021	1130	27.5

Drawdown: 22.98 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1047	22.26	6.09	-25	451	95.1	4.42
1052	22.96	6.08	-30	449	48.3	1.49
1057	23.36	6.08	-33	449	25	0.94
1102	23.59	6.12	-40	446	19.9	0.7
1107	23.76	6.13	-44	450	21	0.6
1112	23.62	6.13	-48	452	31.7	0.54
1115	23.71	6.12	-47	457	40.3	0.54
1118	23.84	6.14	-50	454	37.1	0.55
1121	23.78	6.13	-51	451	40.5	0.54
1124	23.78	6.14	-53	454	38.5	0.53
1127	23.68	6.13	-57	455	21.8	0.49
1130	23.67	6.13	-57	455	21	0.49

Comments/Conditions:

Samples were collected by Ben Taylor and Connor Smalling

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 22	43.37	23.42	44-54	2/16/2021	1313	57.92

Drawdown: 23.53 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1233	20.72	7.06	109	1750	0.9	6.08
1238	20.91	9.51	101	1840	0,9	2.99
1243	21.02	10.92	89	2000	0.1	3.55
1248	21.1	11,14	82	2120	0	3.71
1253	21.17	11.15	79	2170	0	3.8
1258	21.09	7.3	-13	2350	2.2	1.7
1301	20.96	6.61	-63	2390	0	1.03
1304	20.92	6.59	-66	2390	0.3	0.94
1307	20.95	6.58	-65	2400	0,1	0.84
1310	21.03	6.58	-63	2400	0.1	0.8
1313	20.98	6.58	-62	2390	0	0.79
	1					

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 22	43.37	22.33	44-54	8/4/2021	1331	57.54

Drawdown: 22.46 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1303	23.67	6.16	-4	1870	11.5	6.43
1308	23.84	6.69	-106	1960	4.3	1.08
1313	23.88	6.82	-127	1980	5.8	0.75
1318	24.08	6.86	-134	1980	6.1	0.6
1323	24.07	6.88	-138	1980	6.1	0.52
1328	24.15	6.89	-140	1980	6.5	0.49
1331	24.1	6.9	-140	1980	6	0.47

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 23	43.23	20.2	39-49	2/17/2021	1126	

Drawdown: 22.45 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1058	19	6.5	9	1150	16.7	6.6
1103	19.03	6.54	-9	1120	17.9	3.09
1108	19.11	6.63	-42	1050	15.3	0.84
1113	19.01	6.65	-49	957	9.2	0.78
1118	18.98	6.67	-51	939	7	0.7
1123	18.92	6.67	-54	944	6.1	0.66
1126	18.91	6.73	-58	937	4.5	0.64

Comments/Conditions:

Samples were collected by Trey West Bryran Brase

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 23	43.23	21.83	39-49	8/3/2021	1236	

Drawdown: 23.21 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1211	22.93	6.54	-79	1150	18	1.64
1216	23.17	6.49	-87	1150	8.2	0.62
1221	23.12	6.5	-91	1140	12.2	0.5
1226	23.03	6.53	-95	1110	12.2	0.44
1231	22.99	6.57	-98	1080	11.8	0.42
1236	22.99	6.61	-102	1060	12.8	0.39

Comments/Conditions:

Samples were collected by Ben Taylor and Connor Smalling

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 24	28.77	6.25	34-44	3/2/2021	1157	47.72

Drawdown: 8.28 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
15	round 1	round 1	ORP	round 1	1 uroidity	Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1142	19.06	7.42	69	321	10.8	10.73
1147	18.53	7.59	70	312	13.8	5.79
1152	18.39	7.61	71	309	5.8	5.42
1157	18.53	7.59	72	309	1.6	5.3

Comments/Conditions:

Samples were collected by Trey West, Damien Johnson, Thomas Guerry

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 24	28.77	7.57	34-44	8/2/2021	1250	47.73

Drawdown: 9.54 depth to GW (ft)

Time	Temp	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1216	28.67	7.46	-88	463	3.2	7.62
1221	27,7	7.44	-126	362	1.4	0.81
1226	27.25	7.44	-136	350	5.8	0.6
1231	27.01	7.45	-142	344	7.6	0.53
1236	27.14	7.45	-146	339	7.2	0.47
1241	27.13	7.49	-153	338	7	0.44
1244	27.18	7.51	-158	340	6.9	0.43
1247	27.35	7.53	-164	342	6.7	0.41
1250	27.4	7.53	-166	340	6.3	0.41

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 25	27.1	8.05	27-37	3/4/2021	1036	40.43

Drawdown: 8.21 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1005	18.85	6.71	135	472	2.1	3.52
1010	18.78	6.72	34	382	0	1.17
1015	18.63	6.76	-32	364	0	0.79
1020	18.58	6.83	-58	355	0	0.7
1025	18.51	6.88	-84	353	0	0.67
1030	18.59	6.9	-106	349	0	0.65
1033	18.64	6.92	-112	348	0	0.64
1036	18.69	6.93	-115	348	0	0.63

Comments/Conditions:

Samples were collected by Trey West and Marvin Lewis

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 25	27.1	7.92	27-37	8/10/2021	1332	40.45

Drawdown: 8.16 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	Oxygen (ppm)
1258	25.4	6.81	-106	348	0	3.13
1303	24.59	6.92	-140	349	0	1.66
1308	24.72	6.93	-142	350	0	1.91
1313	24.31	6.94	-142	349	0	1.69
1318	23.79	6.98	-143	348	0	1.47
1323	23.66	7.01	-144	348	0	1.31
1326	23.53	7.04	-146	347	0	1.16
1329	23.48	7.04	-145	347	0	1.08
1332	23.55	7.05	-145	345	0	1.02

Comments/Conditions:

Samples were collected by Melanie Goings and Brian Brase.

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 26	27.56	6.52	12'-22'	3/2/2021	1513	26

Drawdown: 6.72 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1	0.177.1	Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1436	17.55	5.68	62	125	24.8	2.37
1441	17.34	5.34	80	134	19.4	1.53
1446	17.4	5.24	80	142	15.2	1.29
1451	17.55	5.14	78	157	10.1	0.93
1456	17.4	5.1	77	166	6.9	0.83
1501	17.52	5.07	76	177	4.9	0.75
1504	17.56	5.06	75	179	3.6	0.76
1507	17.62	5.04	75	186	3.2	0.7
1510	17.75	5.04	74	189	3.1	0.75
1513	17.86	5.03	74	191	3.1	0.72

Comments/Conditions:

Samples were collected by Trey West, Damien Johnson, Thomas Guerry

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
WAP - 26	27.56	7.49	12'-22'	8/10/2021	1146	25.98

Drawdown: 7.63 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1	,	Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1115	25.45	4.6	184	192	12.5	1.73
1120	26.23	4.63	174	186	15.5	1.13
1125	26.56	4.65	152	179	15.9	0.76
1130	27.02	4.66	134	181	14	0.65
1135	26.95	4.72	118	183	8.9	0.6
1140	27.26	4.71	112	183	4.4	0.56
1143	27.3	4.72	106	184	0	0.54
1146	27.54	4.72	103	184	0	0.51

Comments/Conditions:

Samples were collected by Melanie Goings and Brian Brase.

Appendix C – Well Installation Records



Water Well Record Bureau of Water

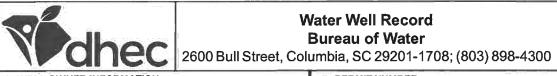
PROMOTE		2600 Bu	ll Street, Columbia, SC 29201-1708; (803) 898-4300
1. WELL OWNER INFORMATION: Name: SANTEE COOPER			7. PERMIT NUMBER: WAP-17
(last)	(first	ı)	8. USE:
Address: ONE RIVERWOOD DRIVE	•		Residential Public Supply Process
City: MONCKS CORNER State: SC	Zip: 29	461	☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement
Telephone: Work:	Home:		9. WELL DEPTH (completed) Date Started: 03/04/21
2. LOCATION OF WELL: SC C	DUNTY: GEOF	RGETOWN	19.0 ft. Date Completed: 03/04/21
Name: WINYAH GENERATING Street Address: 661 STEAM PLA	NT DRIVE		10. CASING: ☑ Threaded ☑ Welded Diam.: 2 INCH Height: Above ☐ Below ☐
City: GEORGETOWN	Zip: 29440		Type:
Latitude: 33° 19' 53,57" Longitude		T	in. to ft. depth
3. PUBLIC SYSTEM NAME: PU	JBLIC SYSTEM WAP-		11. SCREEN: Type: Diam.: Slot/Gauge: Length:
4. ABANDONMENT: Yes			Set Between: ft. and ft. NOTE: MULTIPLE SCREENS ft. and ft. USE SECOND SHEET
Grouted Depth: from 0.0 ft. to 19.0 ft.			Sleve Analysis Yes (please enclose) No
Formation Description	*Thickness of	Depth to Bottom of	12. STATIC WATER LEVEL ft. below land surface after 24 hours
	Stratum	Stratum	13. PUMPING LEVEL Below Land Surface.
ABANDONED VIA TREMIE PIPE		·	ft. after hrs. Pumping G.P.M. Pumping Test: Yes (please enclose) No Yield:
WITH PORTLAND BENTONITE			14. WATER QUALITY
			Chemical Analysis Yes No Bacterial Analysis Yes No Please enclose lab results.
		12-	15. ARTIFICIAL FILTER (filter pack) Yes No Installed from ft. to ft. Effective size Uniformity Coefficient
			16. WELL GROUTED? Yes No
			□ Neat Cement □ Bentonite □ Bentonite/Cement □ Other Depth: From ft. to ft.
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft direction Type Well Disinfected Yes No Type:Amount:
			18. PUMP: Date installed: Not instelled
			Mfr. Name: Model No.: H.P Volts Length of drop pipe ft. Capacity gpm
			TYPE: Submersible Jet (shallow) Turbine Jet (deep) Reciprocating Centrifugal
			19. WELL DRILLER: JEREMY RINGLER CERT. NO.: 02294
			Address: (Print) Level: A B C D (circle one)
			176 COMMERCE BLVD
*Indicate Water Reesing Zones			STATESVILLE, NC 28625 Telephone No.: 704-872-7686 Fax No.: 704-872-0248
*Indicate Water Bearing Zones			20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed)			my direction and this report is true to the best of my knowledge and belief.
5. REMARKS: 3.0 GALLONS PORTLAND BENTONITE			
			Signed: Date: 03/05/21
	1		Well Driller
6. TYPE: Mud Rotary Jetter Dug Air R Cable tool Other	otary 🗖	Bored Driven	If D Level Driller, provide supervising driller's name:



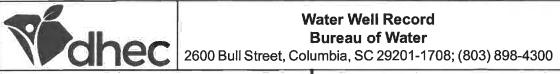
Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

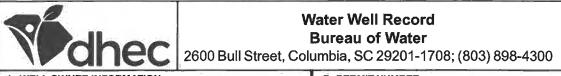
1. WELL OWNER INFORMATION:			7. PERMIT NUMBER:
Name: SANTEE COOPER			
(last) (first)			8. USE:
Address: ONE RIVERWOOD DRIVE			Residential Public Supply Process
City: MONCKS CORNER State: SC	Zip: 29	9461	☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement
			9. WELL DEPTH (completed) Date Started: 03/03/21
Telephone: Work: 2. LOCATION OF WELL: SC C	Home:	DOCTOVANI	
Name: WINYAH GENERATING		RGETOWN	
Street Address: 661 STEAM PLA		(Diam.: 2 INCH Height: Above ✓ Below
City: GEORGETOWN	Zip: 29440		Type: ☑ PVC □ Galvanized Surface 2.5 ft.
Sign GEORGETOWN -ip. 29440			Steel Other Weight Weight
Latitude: 33° 19' 53.57" Longitude	e: 79° 21' 33	.16"	2.0 in. to 9.0 ft. depth Drive Shoe? ☐ Yes ☐ No
			in. toft. depth
3. PUBLIC SYSTEM NAME: PU	JBLIC SYSTE WAP		11. SCREEN: Type: SCH 40 PVC Diam.; 2 INCH
		-17	Slot/Gauge: .010 Length; 10.0 FEET
4. ABANDONMENT: Yes 🗹	No	1	Set Between: 9.0 ft. and 19.0 ft. NOTE: MULTIPLE SCREENS
Crautad Danthy from	ft to	4	ft. and ft. USE SECOND SHEET
Grouted Depth: from	*Thickness	Depth to	Sieve Analysis Yes (please enclose) No
Formation Description	of	Bottom of	12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours
	Stratum	Stratum	13. PUMPING LEVEL Below Land Surface.
SAND	19.0	19.0	ft. afterhrs. PumpingG,P,M. Pumping Test: ☐ Yes (please enclose) ☐ No
			Yield:
		9	14. WATER QUALITY
		:	Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
			Please enclose lab results.
		i	15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
			Installed from
			Effective size 1.43 Uniformity Coefficient 1.30
	-		16. WELL GROUTED? ☑ Yes ☐ No
			☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other Depth: From 0.0 ft. to 5.0 ft.
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
			Type
			Well Disinfected ☐ Yes ☐ No Type: Amount:
· , —=—			18. PUMP: Date installed: Not installed
			Mfr. Name: Model No.:
			H.P Volts Length of drop pipe ft. Capacity gpm
			TYPE: Submersible Jet (shallow) Turbine Jet (deep) Reciprocating Centrifugal
			19. WELL DRILLER: JEREMY RINGLER CERT. NO.: 02294
			Address: (Print) Level: A B C D (circle one)
			176 COMMERCE BLVD
Abadicata Matagon			STATESVILLE, NC 28625
*Indicate Water Bearing Zones			Telephone No.: 704-872-7686 Fax No.: 704-872-0248 20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed)			my direction and this report is true to the best of my knowledge and belief.
5. REMARKS:			
BENTONITE SEAL 5.0 - 7.0 FEET			
		,	Signed: Date:
			Well Driller
6. TYPE: ☐ Mud Rotary ☐ Jetted		Bored	If D Level Driller, provide supervising driller's name:
□ Dug □ Air Ro		Driven	, , , , , , , , , , , , , , , , , , , ,
☐ Cable tool ☑ Other	AUGER		



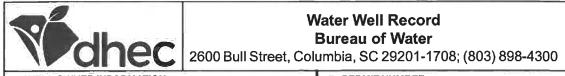
1. WELL OWNER INFORMATION:			7. PERMIT NUMBER: WAP-18
Name: Santee Cooper			WILL-10
(last)	(firs	st)	8. USE:
Address: One Riverwood Drive			☐ Residential ☐ Public Supply ☐ Process
City: Moncks Corner State: SC	Zip: 29	9461-2998	☐ Irrigation ☐ Air Conditioning ☐ Emergency
Violens Corner	r 22	7101 2770	☐ Test Well ☐ Monitor Well ☐ Replacement
	Home:		9. WELL DEPTH (completed) Date Started: 12.7.21
2. LOCATION OF WELL: SC CO	UNTY: Geor	getown	23 ft. Date Completed: 12.7.21
Name: Winyah Generating Station		1	10. CASING: ☑ Threaded ☐ Welded
Street Address: 661 Steam Plant R		1	Diam.: 2 Height: Above/Below
City: Georgetown, SC	^{Zip:} 29440-4	4815	Type: 🖸 PVC 🗆 Galvanized Surfaceft.
		t e	☐ Steel ☐ Other Weight — ☐ Hb./ft. ☐ in. to — ☐ Ft. depth ☐ Drive Shoe? ☐ Yes ☐ No
Latitude: 33,3298 Longitude:	-79.3578		in. tot. depth Drive Snoe? Yes No
			11. SCREEN:
3. PUBLIC SYSTEM NAME: PUI	BLIC SYSIE	M NUMBER:	Type: Diam.:
			Slot/Gauge: Length:
4. ABANDONMENT: ☑ Yes □	No		Set Between: ft. and ft. NOTE: MULTIPLE SCREENS
Give Details Below	22	_	ft. and ft. USE SECOND SHEET
Grouted Depth: from 0 ft			Sieve Analysis
	*Thickness		12. STATIC WATER LEVEL ft. below land surface after 24 hours
Formation Description	of Stratum	Bottom of Stratum	13. PUMPING LEVEL Below Land Surface.
			ft. after hrs. Pumping G.P.M.
1			Pumping Test: 🗌 Yes (please enclose) 📋 No
			Yield:
			14. WATER QUALITY
			Chemical Analysis 🗌 Yes 🔲 No 💮 Bacterial Analysis 🔲 Yes 🔲 No
			Please enclose lab results.
			15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
1 · · · · · · · · · · · · · · · · · · ·	- :		Installed fromft.
			Effective size Uniformity Coefficient
			16. WELL GROUTED? Yes No
			□ Neat Cement □ Bentonite □ Bentonite/Cement □ Other □
			Depth: Fromft. toft.
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft direction Type
			Well Disinfected ☐ Yes ☐ No Type: Amount:
		<u>.</u>	18. PUMP: Date installed: Not installed ☐
			Mfr. Name: Model No.:
			H.P Volts Length of drop pipe ft. Capacity gpm
			TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
			☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal
			19. WELL DRILLER: Elbert Rozier CERT. NO.: 2088
			Address: (Print) Level: A B C D (circle one)
T T			1800 Reynolds Ave N. Charleston, SC
*Indicate Water Pearing Zenes			29405
*Indicate Water Bearing Zones			Telephone No.: Fax No.: 20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed)			my direction and this report is true to the best of my knowledge and belief.
5. REMARKS:			
Original Well Installed 9.23.15			
			Signed
			Signed: Date:
6. TYPE: ☐ Mud Rotary ☐ Jetted	П	Bored	
Dug Air Rotary Driven			If D Level Driller, provide supervising driller's name:
☐ Cable tool ☐ Other			Charles Clymer A-75
		<u> </u>	<u> </u>



1. WELLOWNER INFORMATION:			7. PERMIT NUMBER: WAP-18 (Replacement)
Name: Santee Cooper			WAF-18 (Replacement)
(last) (first)			8. USE:
Address: One Riverwood Drive			☐ Residential ☐ Public Supply ☐ Process
City: Moncks Corner State: SC	Zip: 29	9461-2998	☐ Irrigation ☐ Air Conditioning ☐ Emergency
1,23,13,13			Test Well Monitor Well Replacement 9. WELL DEPTH (completed) Date Started: 11.17.21
	Home:		
2. LOCATION OF WELL: SC CO		getown	17.5 ft. Date Completed: 11.17.21
Name: Winyah Generating Station			10. CASING: ☑ Threaded ☐ Welded Diam.: 2 Height: Above/Below
Street Address: 661 Steam Plant			
City: Georgetown, SC Zip: 29440-4815			Type: ☑ PVC □ Galvanized Surfaceft. □ Steel □ Other Weight □b_ft.
Latitude: 33,3298 Longitude: -79,3578			0in. to 7.5ft. depth Drive Shoe? ☐ Yes ☐ No
			in. toft. depth
	IBLIC SYSTE	M NUMBER:	11. SCREEN: Type: PVC
WAI			Type: PVC Diam.: 2 Slot/Gauge: 0.010 Length: 10
4. ABANDONMENT: ☐ Yes ☑	No		Set Between: 7.5 ft. and 17.5 ft. NOTE: MULTIPLE SCREENS
Give Details Below			ft. andft. USE SECOND SHEET
Grouted Depth: from			Sieve Analysis ☐ Yes (please enclose) ☑ No
Farmation Description	*Thickness	Depth to Bottom of	12. STATIC WATER LEVEL ft. below land surface after 24 hours
Formation Description	of Stratum	Stratum	13. PUMPING LEVEL Below Land Surface.
Brown Fine Sand	0	3	ft. after hrs. Pumping G.P.M.
Brown rine Sand	V	,	Pumping Test: ☐ Yes (please enclose) ☐ No
White Fine Sand	3	6	Yield:
			14. WATER QUALITY
Dark Brown Fine Sand	6	13	Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No Please enclose lab results.
	10	17.6	15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Gray Fine Sand w/Silt	13	17.5	
Gray Fine-Medium Sand	17.5	19.5	Installed from 5.5 ft. to 18.5 ft. Effective size #2 Uniformity Coefficient
Gray I me ividuani band	17.10	17.10	16. WELL GROUTED? ☑ Yes ☐ No
Gray Clay w/Silt and Sand	19.5	20	☑ Neat Cement ☑ Bentonite ☐ Bentonite/Cement ☐ Other
			Depth: From 0 ft. to 5.5 ft.
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: fit direction
			Type
			Well Disinfected ☐ Yes ☐ No Type: Amount:
			18. PUMP: Date installed: Not installed
			Mfr. Name: Model No.:
		27 =	H.P Volts Length of drop pipe ft. Capacity gpm
			TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal
1			Address: (Print) Level: A B C D (circle one)
			1800 Reynolds Ave N. Charleston, SC 29405
*Indicate Water Bearing Zones			79403 Telephone No.: 643 664-1234 Fax No.:
			20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed)			my direction and this report is true to the best of my knowledge and belief.
5. REMARKS:			
			Signed: Date:
			Well Driller
6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored			If D Level Driller, provide supervising driller's name:
☐ Dug ☐ Air Rotary ☐ Driven			James Smith
☐ Cable tool ☑ Other			odinos omiti



1. WELL OWNER INFORMATION:	-	- 9	7 DEDMITNIMPED.
Name: Santee Cooper			7. PERMIT NUMBER: $_{ m WAP-22}$
(last) (first)			
Address: One Riverwood Drive	•	,	8. USE:
One Riverwood Brive			☐ Residential ☐ Public Supply ☐ Process
City: Moncks Corner State: SC	Zip: 29	9461-2998	☐ Irrigation ☐ Air Conditioning ☐ Emergency
			☐ Test Well ☐ Monitor Well ☐ Replacement
Telephone: Work:	Home:		9. WELL DEPTH (completed) Date Started: 12.7.21
	DUNTY: Geor	getown	54 Date Completed: 12.7.21
Name: Winyah Generating Statio			10. CASING: ☑ Threaded ☐ Welded
Street Address: 661 Steam Plant	Road		Diam.: 2 Height: Above/Below
City: Georgetown, SC Zip: 29440-4815			Type: 🗹 PVC 🔲 Galvanized Surfaceft.
25110 1015			☐ Steel ☐ Other Weightlb,/ft.
Latitude: 33,3298 Longitude	: -79.3578		in. toft. depth Drive Shoe? Yes No
			in. toft. depth
3. PUBLIC SYSTEM NAME: PL	IBLIC SYSTE	M NUMBER:	11. SCREEN:
		:	Type: Diam.: Slot/Gauge: Length:
4. ABANDONMENT: ☑ Yes □	No		Set Between: ft. and ft. NOTE: MULTIPLE SCREENS
Give Details Below			ft. andft. USE SECOND SHEET
Grouted Depth: from 0	ft. to <u>54</u>	ft.	Sieve Analysis ☐ Yes (please enclose) ☑ No
	*Thickness		12. STATIC WATER LEVEL ft. below land surface after 24 hours
Formation Description	of	Bottom of	
	Stratum	Stratum	13. PUMPING LEVEL Below Land Surface.
	1		ft. after hrs. Pumping G,P.M. Pumping Test: ☐ Yes (please enclose) ☐ No
			Yield:
	1		
			14: WATER QUALITY Chemical Analysis □ Yes □ No Bacterial Analysis □ Yes □ No
			Please enclose lab results.
			15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
			Installed from ft. to ft. Effective size Uniformity Coefficient
			16. WELL GROUTED? Yes No
			□ Neat Cement □ Bentonite □ Bentonite/Cement □ Other □
			Depth: Fromft.
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft direction
			Type Amount:
			18. PUMP: Date installed: Not installed
			Mfr. Name: Model No.: ft. Capacity gpm
			H.P Volts Length of drop pipe ft. Capacity gpm TYPE: □ Submersible □ Jet (shallow) □ Turbine
			☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal
			19. WELL DRILLER: Elbert Rozier CERT. NO.: 2088 Address: (Print) Level: A B C D (circle one)
			· · ·
			1800 Reynolds Ave N. Charleston, SC 29405
*Indicate Water Bearing Zones			Telephone No.: Fax No.:
<u>-</u>		1	20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed)			my direction and this report is true to the best of my knowledge and belief.
5. REMARKS:			
Original Well Installed 5.29.19			
		,	Claude
			Signed: Date: Date:
6 TVDE: Navel Boton:		Borod	
6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven			If D Level Driller, provide supervising driller's name:
☐ Cable tool ☐ Other			Charles Clymer A-75
- Cable tool - Colle			



1. WELL OWNER INFORMATION:			7. PERMIT NUMBER: WAP-22 (Replacement)
Name: Santee Cooper (last) (first)			
` '			8. USE:
Address: One Riverwood Drive			☐ Residential ☐ Public Supply ☐ Process
City: Moncks Corner State: SC	Zip: 29	9461-2998	☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement
Telephone: Work:	Home:		9. WELL DEPTH (completed) Date Started: 11.17.21
2. LOCATION OF WELL: SC	DUNTY: Geor	getown	35 ft Date Completed: 11.17.21
Name: Winyah Generating Statio	n		10. CASING: ☑ Threaded ☐ Welded
Street Address: 661 Steam Plant			Diam.: 2 Height: Above/Below
			Type: ☑ PVC ☐ Galvanized Surfaceft.
City: Georgetown, SC Zip: 29440-4815			☐ Steel ☐ Other Weight —lb./ft.
Latitude: 33,3298 Longitude: -79,3578			0in. to 25ft. depth Drive Shoe? ☐ Yes ☐ No
			in. toft. depth
3. PUBLIC SYSTEM NAME: PL	IBLIC SYSTE	M NUMBER:	11. SCREEN: Type: PVC Diam: 2
			Slot/Gauge: 0.010 Length: 10
4. ABANDONMENT: ☐ Yes ☑	No		Set Between: 25 ft. and 35 ft. NOTE: MULTIPLE SCREENS
Give Details Below			ft. andft. USE SECOND SHEET
Grouted Depth: from	ft. to	ft.	Sieve Analysis ☐ Yes (please enclose) ☑ No
	*Thickness	Depth to	12. STATIC WATER LEVEL ft. below land surface after 24 hours
Formation Description	of Stratum	Bottom of Stratum	13. PUMPING LEVEL Below Land Surface.
			ft. after hrs. Pumping G.P.M.
Brown Fine Sand	0	3	Pumping Test: ☐ Yes (please enclose) ☐ No
		,	Yield:
White Fine Sand	3	6	14. WATER QUALITY
		10	Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Dark Brown Fine Sand	6	13	Please enclose lab results.
Const Eine Cond 31/Silt	13	17.5	15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Gray Fine Sand w/Silt	13	17.5	
Gray Fine-Medium Sand	17.5	19.5	Installed from 23 ft. to 36 ft. Effective size #2 Uniformity Coefficient
Gray i me medami sana	17,10	13,0	16. WELL GROUTED? ☑ Yes ☐ No
Gray Clay w/Silt and Sand	19.5	20.5	☑ Neat Cement ☑ Bentonite ☐ Bentonite/Cement ☐ Other
			Depth: From 0 ft. to 23 ft.
Gray Fine Sand	20.5	22.5	17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft direction
			Туре
Gray Medium Sand	22.5	25	Well Disinfected ☐ Yes ☐ No Type: Amount:
			18. PUMP: Date installed: Not installed [
Gray Fine-Medium Sand w/Silt	25	30	Mfr. Name: Model No.:
			H.P Volts Length of drop pipe ft. Capacity gpm
			TYPE: Submersible Jet (shallow) Turbine
			☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal
	1		19. WELL DRILLER: Elbert Rozier CERT. NO.: 2088
			Address: (Print) Level: A B C D (circle one)
			1800 Reynolds Ave N. Charleston, SC
*Indicate Water Bearing Zones			29405 Telephone No.: Fax No.:
			20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed)			my direction and this report is true to the best of my knowledge and belief.
5. REMARKS:			, and a solidi
o. NewAnno.			
1			
			Signed: Date:
		1	Well Driller
6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored			If D Level Driller, provide supervising driller's name:
☐ Dug ☐ Air Rotary ☐ Driven			
☐ Cable tool ☑ Other			Charles Clymer A-75