2024 Annual Groundwater Monitoring and Corrective Action Report

W.A Parish Generating Station, Thompsons, Texas

CCR RN 108

Solid Waste Disposal Area (SWMU 001) CCR Multiunit Landfill
Air Preheater Pond (SWMU 021)
FDG Emergency Pond (SWMU 020)

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Executive Summary

Pursuant to 30 Texas Administrative Code (30 TAC) Chapter 352, Coal Combustion Residuals Waste Management and Registration Program for Coal Combustion Residuals (CCR) Implementation (TCEQ's CCR Permit Program), the owner or operator of an existing CCR unit must prepare an annual groundwater monitoring and corrective action report (Annual Report) no later than January 31, 2025, addressing the preceding calendar year. The information to be provided in the Annual Report is described in Subsection 1.2 of the Texas Commission on Environmental Quality (TCEQ) Draft Technical Guidance No. 32, Coal Combustion Residuals Groundwater Monitoring and Corrective Action. In addition, at the request of TCEQ, this Annual Report provides the field and laboratory analytical results for three years of monitoring: 2022, 2023 and 2024.

TRC Environmental Corporation (TRC) has prepared the *2024 Annual Groundwater Monitoring and Corrective Action Report* (Annual Report) for the three CCR units at the W.A. Parish Electric Generating Station (Station):

- Solid Waste Disposal Area (SWDA, SWMU 001) CCR Multiunit Landfill, which includes Landfill Cell 1C, Landfill Cell 2A, Landfill Cell 2B, and Landfill Cell 3;
- FGD Emergency Pond (E Pond, SWMU 020); and
- Air Preheater Pond (APH Pond, SWMU 021).

TRC has prepared this Annual Report on behalf of NRG Texas Power, LLC (NRG). This Annual Report also provides the following information:

- The groundwater monitoring systems for the CCR units operated under detection monitoring at the start and end of 2024; and
- Potentially statistically significant increases (SSIs) of Appendix III CCR constituents above background in groundwater and provides the alternative source demonstrations (ASDs) successfully completed during 2024.

In conclusion, this Annual Report contains the information required pursuant to 30 TAC §352.901 and 30 TAC §352.902 and TCEQ Draft Technical Guidance No. 32 of the TCEQ CCR Permit Program. In addition, at the request of TCEQ, this Annual Report provides the field and laboratory analytical results for three years of monitoring: 2022, 2023 and 2024. This information is provided in this Annual Report. No other information is required to be included in the Annual Report as specified in 30 TAC §352.971 and §352.981 of the TCEQ CCR Permit Program.

Based on the key activities performed during 2024, it is recommended that the three CCR units: SWDA CCR Multiunit Landfill, APH Pond, and the E Pond; remain in detection monitoring subject to the following key activities and that the following project timeline be implemented during 2025:

- The *2024 Annual Report* will be prepared and placed into the Station's Facility Operating Record (FOR) by January 31, 2025, submitted to the TCEQ within 30 days of placement in the FOR, and posted to the Station's publicly accessible CCR website by March 2, 2025,
- An ASD for the second half 2024 (August) semi-annual detection monitoring events will be prepared and submitted to the TCEQ with this Annual Report,
- Both semi-annual groundwater detection monitoring events for the three CCR units will be performed during the first and second halves of 2025 (March and September) for the Appendix III detection monitoring parameters,
- As necessary, the first and second half 2025 resampling detection monitoring events for the Landfill CCR will be performed within 30 days of the original monitoring events and samples will be reanalyzed for select Appendix III detection monitoring constituents,
- Groundwater potentiometric surface maps will be prepared for the first and second halves of 2025 semi-annual detection monitoring events,
- The flow rates and directions of groundwater flow will be determined for the first and second halves of 2025 semi-annual detection monitoring events,
- Statistical analysis and identification of potential SSIs will be performed for the first and second halves of 2025 semi-annual detection monitoring events,
- NRG will notify TCEQ, if required, if potential SSIs are identified and whether ASDs will be prepared for the first and second halves of 2025 semi-annual detection monitoring events, and
- Written ASDs will be prepared and submitted to TCEQ for review and approval, if required, to evaluate potential SSIs above background for the first and second halves of 2025 semi-annual detection monitoring events.

Section 1
Introduction

1.1 CCR Program Summary

On June 28, 2021, the United States Environmental Protection Agency (USEPA) published the final approval of the TCEQ partial State Coal Combustion Residuals (CCR) Permit Program, which became effective on July 28, 2021. The TCEQ adopted by reference the Federal CCR Program (40 CFR Part 257) as amended through the July 30, 2018 issue of the Federal Register (83 FR 36435), subject to the changes and additions provided in the TCEQ CCR Permit Program. As stated in USEPA's approval of the TCEQ CCR Permit Program on June 28, 2021, the TCEQ CCR Permit Program now operates in lieu of the Federal CCR program. Therefore, during 2024, the three CCR units operated pursuant to the requirements of the TCEQ CCR Permit Program.

Pursuant to the TCEQ CCR Permit Program, no later than January 31 of each calendar year, the owner or operator must prepare an annual groundwater monitoring and corrective action report (Annual Report) for the CCR units addressing the preceding calendar year. At a minimum, per TCEQ Draft Technical Guidance No. 32, the Annual Report must contain:

- A map, aerial image, or diagram showing the CCR unit(s) 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(s),
- Narrative description of the Facility and Unit Descriptions and groundwater monitoring system, monitoring well inspection,
- Hydrogeology (groundwater flow rate and direction) with potentiometric surface map,
- 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,
- In addition to all the monitoring data, 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 and laboratory reports,
- Statistical analysis and results,
- 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 other information required to be included in the annual report, as specified in 30 TAC §§352.971 and 352.981, and

- Summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, conclusions and recommendations, and project timelines and key activities for the upcoming year.

TRC Environmental Corporation (TRC) has prepared the *2024 Groundwater Monitoring and Corrective Action Report* (*Annual Report*) for the three CCR units located at the Station on behalf of NRG in accordance with 30 TAC §352.901 and 30 TAC §352.902 and TCEQ Draft Technical Guidance No. 32 of the TCEQ CCR Permit Program.

Pursuant to the TCEQ CCR Permit Program, NRG will comply with the recordkeeping requirements, the notification requirements, and will post the Annual Report to NRG's publicly accessible CCR Web site. In addition, pursuant to §352.902 of the TCEQ CCR Permit Program, NRG will submit the Annual Report to the TCEQ for review no later than 30 days after the report has been placed into the Station's FOR.

1.2 Corrective Measures and Corrective Action

Finally, since the three CCR units are not currently subject to corrective measures or correct action activities under the TCEQ CCR Permit Program, the provisions of 30 TAC §352.971 and §352.981 of the TCEQ CCR Permit Program do not apply. Therefore, per §352.901 of the TCEQ CCR Permit Program, no other information relative to corrective measures or corrective action must be provided in this Annual Report.

1.3 Station Overview

The Station is located in Thompsons, Texas (Figure 1-1). The Station is adjacent to Smithers Lake with the electricity generating portion located on the southeastern shore (location of the E Pond and the APH Pond) and the SWDA CCR Multiunit Landfill located along the northeastern shore (Figure 1-2). The Station currently uses western United States coal as a fuel source to power the boilers. The spent coal fuels or CCR have been classified by the TCEQ as a Class II Nonhazardous waste and consist of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge. During 2024, the Station had the following three active CCR Units per the TCEQ CCR Permit Program:

- SWDA CCR Multiunit Landfill (SWMU 001), which includes Landfill Cell 1C, Landfill Cell 2A, Landfill Cell 2B, and Landfill Cell 3;
- E Pond (SWMU 020); and
- APH Pond (SWMU 021).

All four landfill cells are constructed on native clay soils and are generally constructed with berms having vegetated exterior slopes. The inside slopes and crests of the berms are surfaced with stabilized CCR to control vegetation and to act as an erosion protection layer. CCR management and stormwater control activities performed at the CCR landfill cells are described below:

- Landfill Cell 1C. Landfill Cell 1C receives nonmarketable CCR, which are trucked from the Station. Storm water is directed to the storm water collection pond in the western portion of Cell 1C, where it is then transferred to the Cell 3 storm water pond on an as-needed basis for discharge from this pond to Texas Pollutant Discharge Elimination System (TPDES) Outfall 004.
- Landfill Cell 2A. Landfill Cell 2A is a small active portion of Cell 2, which has been closed. A pugmill operation for mixing and stabilizing CCR for disposal in other cells or for beneficial reuse outside the SWMU 001 Landfill CCR multiunit had been located at Cell 2A. Storm water is directed to the southwestern portion of Cell 2A, where it is then transferred to the Cell 3 storm water pond on an as needed basis for discharge from this pond to TPDES Outfall 004.
- Landfill Cell 2B. Landfill Cell 2B receives marketable CCR, which is trucked from the Station. Storm water is directed to the storm water collection pond in the southern portion of Cell 2B, where it is then transferred to the Cell 3 storm water pond on an as-needed basis for discharge from this pond to TPDES Outfall 004.
- Landfill Cell 3. Landfill Cell 3 receives bottom ash, which is trucked from the Station. Storm water is directed to the storm water collection pond in the western portion of Cell 3. In accordance with the facility's TPDES permit, water from the Cell 3 storm water pond is discharged through Outfall 004 to Smithers Lake on an as-needed basis.

A description of both CCR surface impoundments at the Station, including CCR management and stormwater control activities performed are described below:

- FGD Emergency Pond (E Pond, SWMU 020). The E Pond is located in the central portion of the Station as shown on Figure 1-2. The E Pond receives storm water runoff from the FGD dewatering area and also blowdown from the FGD system. This impoundment may also receive the contents of an FGD process vessel when the FGD system is not in operation. Per §257.101(k) of the Federal CCR Rule, CCR was removed from the E Pond and the E Pond was decontaminated. The E Pond was then retrofitted with the installation of a bottom composite liner system during 2021.
- Air Preheater Pond (APH Pond, SWMU 021). The APH Pond is located in the southwestern portion of the Station as shown on Figure 1-2. The APH Pond receives effluent from air preheater wash and boiler cleaning wash, which consists of fly ash or economizer ash particles and water. Per §257.101(k) of the Federal CCR Rule and as per

the TCEQ CCR Permit Program, CCR was removed from the APH Pond and the APH Pond was decontaminated during 2020. The APH Pond was then retrofitted with the installation of a bottom composite liner system during 2020 and 2021.

Section 2
Groundwater Monitoring Systems and Hydrogeology

2.1 Groundwater Monitoring Systems

The groundwater monitoring systems for the three CCR units at the Station consist of a total of 25 wells installed into the uppermost aquifer, which are described in the subsections below. The locations and well identification numbers for the background (or upgradient) and downgradient groundwater monitoring wells that are part of the groundwater monitoring program are shown on the following figures:

- SWDA CCR Multiunit Landfill, Figure 2-1;
- E Pond, Figure 2-2; and
- APH Pond, Figure 2-3.

2.1.1 SWDA CCR Multiunit Landfill (SWMU 001)

The groundwater monitoring system for the SWDA CCR Multiunit Landfill consists of 14 monitoring wells screened into the uppermost aquifer (see Table 2-1 and Figure 2-1). Six monitoring wells are located hydraulically upgradient of the SWDA CCR Multiunit Landfill and monitor background quality in the uppermost aquifer. The remaining eight wells are located hydraulically downgradient of the SWDA CCR Multiunit Landfill and monitor the quality of groundwater in the uppermost aquifer passing beneath the waste boundary of the SWDA CCR Multiunit Landfill. The downgradient monitoring wells making up the CCR groundwater monitoring system were selected based on the direction of groundwater flow and using a well-spacing consistent with the locations of the upgradient wells. The SWDA CCR Multiunit Landfill wells are provided in Table 2-1 below.

SWDA CCR Multiunit Landfill Monitoring Well Network

UPGRADIENT WELLS	DOWNGRADIENT WELLS
MW-23R, MW-28D, MW-42, MW-43, MW-47, MW-48	MW-44, MW-46R, MW-50, MW-52, MW-54, MW-55R, MW-58, MW-65

No groundwater monitoring wells were installed or decommissioned as part of the CCR groundwater monitoring system for the SWDA CCR Multiunit Landfill during 2024.

2.1.2 E Pond (SWMU 020)

The groundwater monitoring system for the E Pond (SWMU 020) consists of five monitoring wells (MW-36, MW-37, MW-38R, MW-60, and MW-61) screened into the uppermost aquifer (see Figure 2-2). Monitoring wells MW-36 and MW-60 are located hydraulically upgradient of the E Pond and monitor background quality in the uppermost aquifer. The remaining three wells (MW-37, MW-38R, and MW-61) are located downgradient of the E Pond and monitor the quality of groundwater in the uppermost aquifer passing beneath the waste boundary of the E Pond.

MW-61R groundwater monitoring well was installed following decommissioning of MW-61 due to Zero Liquid Discharge (ZLD) construction impacting MW-61 in December 2024. MW-61R will be incorporated into the CCR monitoring well system for the E Pond during 2025.

2.1.3 APH Pond (SWMU 021)

The groundwater monitoring system for the APH Pond (SWMU 021) consists of six monitoring wells (MW-39R, MW-40, MW-41, MW-62, MW-63, and MW-64). Monitoring wells MW-39R, MW-40, and MW-62 are located hydraulically upgradient of the APH Pond and monitors background quality in the uppermost aquifer. MW-41, MW-63, and MW-64 are located hydraulically downgradient of the APH Pond and monitor the quality of groundwater in the uppermost aquifer passing beneath the waste boundary of the APH Pond.

During 2018, groundwater potentiometric surface maps historically prepared for the 2015 through 2017 detection monitoring events were reviewed to re-evaluate the apparent directions of groundwater flow in the uppermost aquifer at the APH Pond. Based on this re-evaluation, the groundwater monitoring system for the APH Pond was revised and updated to more adequately reflect the apparent directions of groundwater flow observed since the groundwater monitoring system was originally installed and to more accurately represent the natural range of background groundwater quality. As part of this re-evaluation, MW-39R and MW-40 were re-designated as background upgradient monitoring wells.

No new groundwater monitoring wells were installed or decommissioned as part of the CCR groundwater monitoring system for the APH Pond during 2024.

2.2 Semi-annual Detection Monitoring Sampling

Hydrologic Monitoring Inc. (HMI) performed the semi-annual detection monitoring events during the first and second half of 2024 per §352.941 of the TCEQ CCR Permit Program. HMI performed the monitoring activities under contract to TRC.

A total of four detection monitoring sampling events were performed during 2024. The first half 2024 semi-annual detection monitoring event was performed in March 2024 and a verification sampling event was performed during March 2024 to evaluate select parameters. The second half 2024 semi-annual detection monitoring event was performed during August 2024 and a verification resampling event was performed during September 2024 to evaluate select parameters.

2.2.1 Monitoring Well Inspection

Prior to sample collection, each well was visually inspected for conditions that could potentially affect the validity of the analytical results. The results of the inspection were documented on a Water Sample Log.

No deficiencies in well construction were noted during the four groundwater monitoring events performed during 2024. Due to construction activities taking place at the Facility, MW-61 was replaced with MW-61R in December 2024.

2.2.2 Quarterly Background Detection Monitoring

Quarterly background groundwater quality detection monitoring was completed in April 2021 as part of developing a new background groundwater quality data set for the CCR unit (see *2019 Annual Report*). A total of eight quarterly background monitoring events were performed beginning in the third quarter of 2019 through the second quarter of 2021. The quarterly background samples were analyzed for both the Appendix III and Appendix IV Federal CCR Rule parameters. Wells sampled for the quarterly background detection monitoring events are as follows:

CCR UNIT	UPGRADIENT WELLS	DOWNGRADIENT WELLS
SWDA Multiunit	MW-23R, MW-28D, MW-42, MW-43, MW-47, MW-48	MW 44, MW-46R, MW-50, MW-52, MW-54, MW-55R, MW-58, MW-65
E Pond	MW-36, MW-60	MW-37, MW-38R, MW-61
APH Pond	MW-39R, MW-40, MW-62	MW-41, MW-63, MW-64

2.2.3 Semi-annual Detection Monitoring

The Appendix III field and laboratory analytical data collected during the March 2024 and August 2024 semi-annual detection monitoring events were the sixth and seventh semi-annual detection monitoring events that used the new background water quality data set to identify potential SSIs for the Appendix III data.

2.2.4 Analytical Laboratory

During 202r, the semi-annual detection monitoring groundwater samples were analyzed by ALS Environmental (ALS) located in Houston, Texas, which is a TCEQ certified laboratory (TCEQ ID T104704231-22-29).

2.2.5 Laboratory and Field Analyses

The semi-annual groundwater detection monitoring samples were analyzed for the Appendix III CCR constituents pursuant to 30 TAC Chapter 352. Additionally, field parameters (pH, temperature, specific conductivity, and turbidity) were obtained for all monitoring wells during the four groundwater monitoring events performed during 2024.

Laboratory and field analytical data are provided in Appendices A and B. The semi-annual detection monitoring analytical data for 2022 through 2024 are summarized in Table 2-2.

2.3 Laboratory Data Quality Review

Upon receipt of the March and August 2024 groundwater monitoring analytical data from the analytical laboratory and the March and September 2024 resampling events, the data were evaluated for completeness, overall quality and usability, method-specified sample holding times, precision and accuracy, and potential sample contamination.

TRC concluded that the March, August and September laboratory analytical data, analyzed by ALS, were complete and usable for the purposes of the CCR quarterly background and semi-annual detection monitoring programs. Laboratory data quality review information is provided in Appendix C.

2.4 Groundwater Flow Direction, Gradient, and Rate

Static groundwater elevations were measured for each monitoring well at all three CCR units during the March and August 2024 detection monitoring events prior to sample collection. These measurements are provided in Table 2-1 for the three CCR units. Groundwater potentiometric surface maps were developed for the March and August detection monitoring events to evaluate groundwater flow directions. The potentiometric surface maps are provided as the following figures:

- SWDA CCR Multiunit Landfill. Figures 2-4, and 2-7;
- APH Pond. Figures 2-5, and 2-8; and
- E Pond. Figures 2-6, and 2-9.

Groundwater flow direction and gradient information for all three CCR units for the 2024 detection monitoring sampling events are provided below:

SWDA CCR Multiunit Landfill. Groundwater is typically encountered at depths ranging from 14.45 (MW-23R) to 30.33 (MW-50) feet below the top of casing (btoc) at the SWDA CCR Multiunit Landfill, with the overall direction of groundwater flow beneath and in the vicinity of the CCR unit to the northeast. The average calculated groundwater gradient ranged from 0.0011 ft/ft to 0.0016 ft/ft with an average groundwater flow velocity of 14 ft/yr.

E Pond. Groundwater is typically encountered at depths ranging from 6.34 (MW-60) to 11.99 (MW-61) feet btoc at the E Pond, with the overall direction of groundwater flow beneath and in the vicinity of the CCR unit to the southwest. The average calculated groundwater gradient ranged from 0.0046 ft/ft to 0.0051 ft/ft with an average groundwater flow velocity of 51 ft/yr.

APH Pond. Groundwater is typically encountered at depths ranging from 6.89 (MW-41) to 12.10 (MW-40) feet btoc at the APH Pond, with the overall direction of groundwater flow beneath and in the vicinity of the CCR unit to the southwest and southeast. The average calculated groundwater gradient ranged from 0.0019 ft/ft to 0.0020 ft/ft with an average groundwater flow velocity of 21 ft/yr.

2.5 Monitoring Wells Installed or Decommissioned

MW-61R groundwater monitoring well at the E Pond was installed following decommissioning of MW-61 in December 2024. MW-61R will be incorporated into the CCR monitoring well system for the E Pond during 2025.

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Section 3
Status of Groundwater Monitoring and Corrective Action Program

3.1 Semi-annual Detection Monitoring Summary

This Annual Report provides the monitoring data for the two semi-annual detection monitoring events that were performed for all three CCR units during March and August 2024. In addition, this Annual Report provides the previous monitoring data from 2022 and 2023.

Previous monitoring data were provided in the 2017, 2018, 2019, 2020, 2021, 2022 and 2023 Annual Reports. Based on the data and results of the monitoring activities during 2024, the status of the groundwater monitoring and corrective action program at the Station including key actions completed, problems encountered, and actions to resolve the problems are summarized in the following subsections.

3.2 Key Actions Completed

The following key actions were completed during 2024:

- The *2023 Annual Groundwater Monitoring and Corrective Action Report* was prepared per §257.90(e) and (f) of the Federal CCR Rule and 30 TAC Chapter 352 of the TCEQ CCR Permit Program, placed into the FOR by January 31, 2024, and posted to NRG's publicly accessible CCR website by March 2, 2024,
- The first and second half 2024 semi-annual detection monitoring events for the CCR units were performed during March and August 2024 and the samples were analyzed for the Appendix III detection monitoring constituents,
- Resampling monitoring events were performed during March and September 2024 to confirm the detection of potential SSIs,
- To perform the statistical analysis for the two semi-annual (March and August) semi-annual detection monitoring events, the Appendix III analytical results were compared to the new background water quality data set developed using the eight quarterly detection monitoring events performed beginning in the third quarter of 2019 through the second quarter of 2021,
- Groundwater potentiometric surface maps were prepared for the CCR units for the March and August 2024 semi-annual detection monitoring events,
- The directions and apparent flow rate of groundwater were determined,

- Potential SSIs above background were identified for the CCR units for the first half 2024, and second half 2024 semi-annual detection monitoring events,
- NRG notified TCEQ in April 2024 pursuant to the TCEQ CCR Permit Program that potential SSIs had been identified for the first half 2024 (March) semi-annual detection monitoring event. An ASD was submitted to the TCEQ in the third quarter of 2024,
- NRG notified TCEQ in December 2024 pursuant to the TCEQ CCR Permit Program that potential SSIs had been identified for the second half 2024 (August) semi-annual detection monitoring event and that NRG would prepare and submit an ASD with this Annual Report,
- Written ASDs were completed during 2024 that successfully demonstrated that potential SSIs above background for the first half 2024 (March) and second half 2024 (September) semi-annual detection monitoring events were due to alternative sources, and
- Installation of MW-61R in December 2024 at the E Pond to replace MW-61 which was in the way of a Facility construction project. MW-61R will be incorporated into the monitoring well network for sampling conducted in 2025.

Based on the successful completion of written ASDs, all three CCR units remained in detection monitoring during 2024. No corrective action activities were performed for the CCR units pursuant to the TCEQ Permit Program during 2024.

3.3 Problems Encountered and Resolution

During 2024, no problems were encountered for the CCR groundwater monitoring program for the Station and no actions were taken to resolve problems.

Section 4
Statistical Analysis and Results

This Annual Report identifies potential SSIs above background that were determined for groundwater samples collected during the March 2024, and August 2024 semi-annual detection monitoring events.

4.1 March 2024 Semi-annual Detection Monitoring Event

Statistical analysis and identification of potential SSIs for the first half 2024 (March 2024) semi-annual detection monitoring event were completed during March 2024. Select wells and analytes were resampled in March 2024 following receipt of the initial sampling data. The statistical analysis was conducted in accordance with the revised Statistical Methods Certification (August 2018) using Lower Tolerance Limits (LTLs) where applicable, and upper tolerance limits (UTLs) per the TCEQ CCR Permit Program.

The eighth and final quarterly background detection monitoring event was performed during April 2021 as part of the development of a new background groundwater quality data set for the groundwater monitoring program. Statistical analysis and identification of potential SSIs for the March 2024 semi-annual detection monitoring event was performed using the new background water quality data set. Per the TCEQ CCR Permit Program, potential SSIs were identified in March 2024 for the March 2024 semi-annual detection monitoring event.

The results of the statistical analysis for the April 2024 semi-annual detection monitoring event for the three CCR units are summarized below in Tables 4-1, 4-2, and 4-3. In accordance with 30 TAC Chapter 352, ASDs were successfully performed during 2024 to evaluate the potential SSIs as discussed in Section 5.0, which are provided with the 2024 Annual Report. The ASDs were also submitted to TCEQ in July 2024.

4.1.1 SWDA CCR Multiunit Landfill

The results of the statistical analysis for the March 2024 semi-annual detection monitoring event are summarized in the table below. Three potential SSIs were identified in upgradient monitoring well MW-23R and one potential SSI was identified in downgradient monitoring well MW-46R.

Table 4-1
Potential SSIs – March 2024, Detection Monitoring, SWDA CCR Multiunit Landfill SSIs

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
UPGRADIENT MONITORING WELLS						
Calcium	MW-23R	N/A	420	3/29/2024	500	mg/L
Sulfate	MW-23R	N/A	670	3/29/2024	1,460	mg/L
TDS	MW-23R	N/A	3,700	3/29/2024	3,940	mg/L
UPGRADIENT MONITORING WELLS						
pH	MW-46R	6.9	8.8	3/29/2024	6.48	s.u.

mg/L= milligrams per liter N/A = Not Applicable
LTL – Lower Tolerance Limit UTL – Upper Tolerance Limit s.u. – Standard Units

4.1.2 E Pond

The results of the statistical analysis for the March 2024 semi-annual detection monitoring event are summarized in the table below. Seven potential SSIs were identified. The seven potential SSIs were identified in downgradient monitoring wells MW-37, MW-38R, and MW-61.

Table 4-2
Potential SSIs – March 2024, Detection Monitoring, E Pond SSIs

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
DOWNGRADIENT MONITORING WELLS						
Boron	MW-37	N/A	0.12	3/29/2024	0.404	mg/L
Sulfate	MW-37	N/A	470	3/29/2024	1,140	mg/L
TDS	MW-37	N/A	1,800	3/29/2024	1,980	mg/L
Boron	MW-38R	N/A	0.12	5/1/2024	0.344	mg/L
Sulfate	MW-38R	N/A	470	3/29/2024	657	mg/L
Boron	MW-61	N/A	0.12	5/1/2024	5.24	mg/L
Sulfate	MW-61	N/A	470	3/29/2024	1,140	mg/L

mg/L= milligrams per liter N/A = Not Applicable
LTL – Lower Tolerance Limit UTL – Upper Tolerance Limit

4.1.3 APH Pond

The results of the statistical analysis for the March 2024 semi-annual detection monitoring event are summarized in the table below. Two potential SSIs were identified. Two potential SSIs were identified in downgradient monitoring well MW-63.

Table 4-3
Potential SSIs – April 2024, Detection Monitoring, APH Pond SSIs

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
DOWNGRADIENT MONITORING WELLS						
Sulfate	MW-63	N/A	360	3/29/2024	364	mg/L
Boron	MW-63	N/A	0.23	3/29/2024	0.438	mg/L

mg/L= milligrams per liter N/A = Not Applicable
LTL – Lower Tolerance Limit UTL – Upper Tolerance Limit

4.2 August 2024 Semi-annual Detection Monitoring Event

Statistical analysis and identification of potential SSIs for the second half 2024 (August) semi-annual detection monitoring event were completed during September 2024. Select wells and analytes were resampled in September 2024 following receipt of the August 2024 sampling data. The statistical analysis was conducted in accordance with the revised Statistical Methods Certification (August 2018) using LTLs where applicable, and UTLs per the TCEQ CCR Permit Program.

The results of the statistical analysis for the August 2024 semi-annual detection monitoring event for the three CCR units are summarized below in Tables 4-4, 4-5, and 4-6. In accordance with 30 TAC Chapter 352, ASDs were successfully performed to evaluate the potential SSIs as discussed in Section 5.0, which are provided with this Annual Report. The ASDs were also submitted to TCEQ in December 2024.

4.2.1 SWDA CCR Multiunit Landfill

The results of the statistical analysis for the August 2024 semi-annual detection monitoring event are summarized in the table below. Four potential SSIs were identified. Three potential SSI in upgradient monitoring well MW-23R, and four potential SSIs in downgradient monitoring wells MW-50, MW-52 and MW-65.

Table 4-4
Potential SSIs – August 2024, Detection Monitoring, SWDA CCR Multiunit Landfill SSIs

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
UPGRADIENT MONITORING WELLS						
pH	MW-23R	6.9	8.8	9/26/2024	6.53	s.u.
Calcium	MW-23R	N/A	420	9/26/2024	503	mg/L
Sulfate	MW-23R	N/A	670	9/26/2024	1,640	mg/L

DOWNGRADIENT MONITORING WELLS						
pH	MW-50	6.9	8.8	9/26/2024	6.83	s.u.
pH	MW-52	6.9	8.8	9/26/2024	6.79	s.u.
pH	MW-65	6.9	8.8	9/26/2024	6.76	s.u.
Sulfate	MW-65	N/A	670	9/26/2024	775	s.u.

mg/L= milligrams per liter N/A = Not Applicable
LTL – Lower Tolerance Limit UTL – Upper Tolerance Limit s.u. – Standard Units

4.2.2 E Pond

The results of the statistical analysis for the August 2024 semi-annual detection monitoring event are summarized in the table below. Eight potential SSIs were identified in downgradient monitoring wells MW-37, MW-38R, and MW-61.

Table 4-5
Potential SSIs – August 2024, Detection Monitoring, E Pond SSIs

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
DOWNGRADIENT MONITORING WELLS						
Boron	MW-37	N/A	0.12	9/26/20243	0.482	mg/L
Sulfate	MW-37	N/A	470	9/26/2024	1,400	mg/L
Boron	MW-38R	N/A	0.12	9/26/2024	0.390	mg/L
Sulfate	MW-38R	N/A	470	9/26/2024	776	mg/L
Boron	MW-61	N/A	0.12	9/26/2024	1.13	mg/L
Sulfate	MW-61	N/A	470	9/26/2024	1,360	mg/L
TDS	MW-61	N/A	1,800	9/26/2024	1,940	mg/L

mg/L= milligrams per liter N/A = Not Applicable
LTL – Lower Tolerance Limit UTL – Upper Tolerance Limit

4.2.3 APH Pond

The results of the statistical analysis for the August 2024 semi-annual detection monitoring event are summarized in the table below. One potential SSI was identified in upgradient monitoring well MW-40 and two potential SSIs were identified in downgradient monitoring well MW-63.

Table 4-6
Potential SSIs – August 2024, Detection Monitoring, APH Pond SSIs

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
UPGRADIENT MONITORING WELLS						
Calcium	MW-40	N/A	290	8/28/2024	309	mg/L
DOWNGRADIENT MONITORING WELLS						
Sulfate	MW-63	N/A	360	9/26/2024	609	mg/L
Boron	MW-63	N/A	0.23	9/26/2024	0.262	mg/L

mg/L= milligrams per liter
N/A = Not Applicable
LTL – Lower Tolerance Limit
UTL – Upper Tolerance Limit

Section 5
Alternative Source Demonstrations

As described in Section 4.0, potential SSIs above background levels were identified for the three CCR units for the first half (March) 2024, and the second half (August) 2024 semi-annual detection monitoring events. ASDs were prepared for the first half (March) 2024 monitoring events during 2024 that successfully documented that alternative sources or historical errors in statistical analysis were responsible for the potential SSIs observed. The ASDs were submitted to TCEQ in July 2024.

ASDs for the three CCR units for the second half (August) 2024 monitoring event were prepared and submitted to the TCEQ during in December 2024. At the request of TCEQ, these ASDs are appended to this Annual Report in Appendix D.

Pursuant to the TCEQ CCR Permit Program, the owner or operator may demonstrate that a source other than the CCR unit caused the SSI(s) over background levels for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. To evaluate the potential SSIs and to determine whether an ASD could be successfully demonstrated for the CCR Units, ASDs were completed and certified by a qualified Texas P.E. during 2024 per 30 TAC Chapter 352 as follows:

- In July 2024, ASDs were certified for potential SSIs for the three CCR units for the first half (March) 2024 semi-annual detection monitoring sampling event, and
- In December 2024, ASDs were certified for potential SSIs for the three CCR units for the second half (August) 2024 semi-annual detection monitoring sampling event.

The first half 2024 ASD was submitted to TCEQ for review and approval pursuant to the TCEQ CCR Permit Program. The second half 2024 ASD is being submitted to TCEQ for review and approval with this Annual Report at the request of TCEQ.

Pursuant to the TCEQ CCR Permit Program, ASDs were successfully completed for the three CCR units. Therefore, all three CCR units remained in detection monitoring during 2024. A total of six ASDs were completed during 2024, which are discussed in the subsections below. The completed ASDs are provided in Appendix D.

5.1 Summary of ASDs

5.1.1 SWDA CCR Multiunit Landfill

Two ASDs were successfully completed for the SWDA CCR Multiunit Landfill during 2024. The ASDs are summarized for the first half (March) 2024 and second half (August) 2024 semi-annual detection monitoring sampling events below:

- March 2024. Calcium, sulfate, and TDS were identified for upgradient monitoring well MW-23R, and pH was identified for downgradient monitoring well MW-46R. The ASD was completed in July 2024. Alternative sources were identified for the potential SSIs:
    1) Natural variations in upgradient background groundwater quality; and
    2) Enhanced minerals dissolution and changes in geochemical conditions within the aquifer.
- August 2024. Calcium, sulfate and pH were identified for upgradient monitoring well MW-23R, sulfate was identified for downgradient monitoring well MW-65, and pH was identified for downgradient monitoring wells MW-50, MW-52 and MW-65. The ASD was completed in December 2024. Alternative sources were identified for the potential SSIs:

1) Natural variations in upgradient background groundwater quality; and
2) Enhanced minerals dissolution and changes in geochemical conditions within the aquifer; and
3) Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.
    4) .

5.1.2 E Pond

Two ASDs were successfully completed for the E Pond during 2024. The ASDs are summarized for the first half (March) 2024 and second half (August) 2024 semi-annual detection monitoring sampling events below:

- March 2024. Seven potential SSIs were identified in three downgradient monitoring wells, MW-37, MW-38R and MW-61. Boron and sulfate at MW-37, MW-38R and MW-61, and TDS at MW-37 were identified as potential SSIs. Alternative sources were identified for the potential SSIs:
    1) The bottom of the E Pond is separated from the upper aquifer system by a confining unit that hydraulically isolates the bottom of the E Pond from

the upper aquifer system. Improperly installed or damaged monitoring wells may have historically provided a conduit for CCR constituents to migrate into the upper aquifer system.

2) The former, historical presence of CCR materials in the vicinity of the monitoring wells prior to their modification to include risers from the ground surface provided an opportunity for surface materials to inadvertently enter the wells directly from the ground surface.

3) Water quality improved incrementally with each improvement to the CCR groundwater monitoring network over time. In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the former location of MW-38. Analytical date for August 2019 for MW-38R indicates significantly improved overall groundwater quality data.

3) It appears that the construction activities that occurred during the retrofit of the E Pond per the federal CCR Rule and the Closure Plan during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
    a. As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
    b. Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
    c. Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration;
    d. As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents;

4) As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters; and

5) Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition.

6) ;

- August 2024. Seven potential SSIs were identified at three downgradient monitoring wells (MW-37, MW-38R and MW-61). Boron and sulfate at MW-37, MW-38R and MW-61 and TDS at MW-61 were identified as potential SSIs. Alternative sources were identified for the potential SSIs:

  1. The bottom of the E Pond clay liner is separated from the upper aquifer system by a confining unit that hydraulically isolates the bottom of the E Pond from the upper aquifer system. Improperly installed or damaged monitoring wells may have historically provided a conduit for CCR constituents to migrate into the upper aquifer system.
  2. The former, historical presence of CCR materials in the vicinity of the monitoring wells prior to their modification to include risers from the ground surface provided an opportunity for surface materials to inadvertently enter the wells directly from the ground surface.
  3. Water quality improved incrementally with each improvement to the CCR groundwater monitoring network over time. In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the former location of MW-38. Analytical date for August 2019 for MW-38R indicates significantly improved overall groundwater quality data.
  4. It appears that the construction activities that occurred during the retrofit of the E Pond per the federal CCR Rule and the Closure Plan during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:

     a. As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;

     b. Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;

     c. Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and

     d. As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

5. As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.
6. Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition; and
7. Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.
8. .

5.1.3 APH Pond

Two ASDs were successfully completed for the APH Pond during 2024. The ASDs are summarized for the first half (March) 2024 and second half (August) 2024 semi-annual detection monitoring sampling events below:

- March 2024. Two potential SSIs were identified in one downgradient monitoring wells (MW-63). Boron and sulfate were identified as potential SSIs. Alternative sources were identified for the potential SSIs:
    1) The construction activities that occurred during the retrofit of the APH Pond per the federal CCR Rule during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer;
        a) As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
        b) Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
        c) Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and

d) As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

2) As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.; and3) Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition.

- August 2024. Calcium was identified for upgradient monitoring well MW-40, and sulfate and boron were identified for downgradient monitoring well MW-63. The ASD was completed in December 2024. Alternative sources were identified for the potential SSIs:
    1. It appears that the construction activities that occurred during the retrofit of the APH Pond per the federal CCR Rule during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
        a. As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
        b. Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
        c. Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
        d. As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.
    2. As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will

continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

3. Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition; and
4. Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

5.2 Detection Monitoring During 2024

As discussed previously, written ASDs were completed and certified by a qualified Texas P.E. during 2024 for the three CCR units. The ASDs successfully demonstrated that alternative sources or laboratory data quality issues were responsible for the potential SSIs identified in groundwater for the first half (March) 2024 and second half (August) 2024 semi-annual detection monitoring events. Therefore, all three CCR units remained in detection monitoring programs at the start and end of 2024.

5.3 Transition Between Monitoring Programs

During 2024, the groundwater monitoring system for all three CCR units remained in detection monitoring. Therefore, there was no transition between detection and assessment monitoring programs for the CCR units during 2024.

Section 6
Projected Key Activities and Timelines for 2025

Key activities and project timelines for 2025 will be performed pursuant to TCEQ's CCR Permit Program and are as follows:

- The *2024 Annual Report* will be prepared and placed into the Station's Facility Operating Record (FOR) by January 31, 2025, submitted to the TCEQ within 30 days of placement in the FOR, and posted to the Station's publicly accessible CCR website by March 2, 2025,
- An ASD for the second half 2024 (August) semi-annual detection monitoring events will be prepared and submitted to the TCEQ with this Annual Report,
- Both semi-annual groundwater detection monitoring events for the three CCR units will be performed during the first and second halves of 2025 (March and September) for the Appendix III detection monitoring parameters,
- As necessary, the first and second half 2025 resampling detection monitoring events for the Landfill CCR will be performed within 30 days of the original monitoring events and samples will be reanalyzed for select Appendix III detection monitoring constituents,
- Groundwater potentiometric surface maps will be prepared for the first and second halves of 2025 semi-annual detection monitoring events,
- The flow rates and directions of groundwater flow will be determined for the first and second halves of 2025 semi-annual detection monitoring events,
- Statistical analysis and identification of potential SSIs will be performed for the first and second halves of 2025 semi-annual detection monitoring events,
- NRG will notify TCEQ, if required, if potential SSIs are identified and whether ASDs will be prepared for the first and second halves of 2025 semi-annual detection monitoring events, and
- Written ASDs will be prepared and submitted to TCEQ for review and approval, if required, to evaluate potential SSIs above background for the first and second halves of 2025 semi-annual detection monitoring events.

Section 7
Conclusions and Recommendations

In conclusion, this Annual Report contains the information required pursuant to 30 TAC §352.901 and 30 TAC §352.902 and Subsection 1.2 of the TCEQ Draft Technical Guidance No. 32 of the TCEQ CCR Permit Program. This information is provided in this Annual Report. No other information is required to be included in the Annual Report as specified in 30 TAC §352.971 and §352.981 of the TCEQ CCR Permit Program. The following key actions were completed during 2024:

- The *2023 Annual Groundwater Monitoring and Corrective Action Report* was prepared per §257.90(e) and (f) of the Federal CCR Rule and 30 TAC Chapter 352 of the TCEQ CCR Permit Program, placed into the FOR by January 31, 2024, and posted to NRG's publicly accessible CCR website by March 2, 2024,
- The first and second half 2024 semi-annual detection monitoring events for the CCR units was performed during March and August 2024 and the samples were analyzed for the Appendix III detection monitoring constituents,
- Resampling monitoring events were performed during March and September 2024 to confirm the detection of potential SSIs,
- To perform the statistical analysis for the two semi-annual (March and August) semi-annual detection monitoring events, the Appendix III analytical results were compared to the new background water quality data set developed using the eight quarterly detection monitoring events performed beginning in the third quarter of 2019 through the second quarter of 2021,
- Groundwater potentiometric surface maps were prepared for the CCR units for the March and August 2024 semi-annual detection monitoring events,
- The directions and apparent flow rate of groundwater were determined,
- Potential SSIs above background were identified for the CCR units for the first half 2024, and second half 4semi-annual detection monitoring events,
- NRG notified TCEQ in April 2024 pursuant to the TCEQ CCR Permit Program that potential SSIs had been identified for the first half 2023 (March) semi-annual detection monitoring event. An ASD was submitted to the TCEQ in tJuly 2024,
- NRG notified TCEQ in December 2024 pursuant to the TCEQ CCR Permit Program that potential SSIs had been identified for the second half 2024 (August semi-annual detection monitoring event and that NRG would prepare and submit an ASD with this Annual Report; and

- Written ASDs were completed during 2024 that successfully demonstrated that potential SSIs above background for the the first half 2024 (March) and second half 2024 (August) semi-annual detection monitoring events were due to alternative sources.

Based on the key activities performed during 2024, it is recommended that the SWDA CCR Multiunit Landfill, APH Pond, and the E Pond remain in detection monitoring subject to the following key activities and that the following project timeline be implemented during 2025:

- The *2024 Annual Report* will be prepared and placed into the Station's Facility Operating Record (FOR) by January 31, 2025, submitted to the TCEQ within 30 days of placement in the FOR, and posted to the Station's publicly accessible CCR website by March 2, 2025,
- An ASD for the second half 2024 (August) semi-annual detection monitoring events will be prepared and submitted to the TCEQ with this Annual Report,
- Both semi-annual groundwater detection monitoring events for the three CCR units will be performed during the first and second halves of 2025 (March and September) for the Appendix III detection monitoring parameters,
- As necessary, the first and second half 2025 resampling detection monitoring events for the CCR units will be performed within 30 days of the original monitoring events and samples will be reanalyzed for select Appendix III detection monitoring constituents,
- Groundwater potentiometric surface maps will be prepared for the first and second halves of 2025 semi-annual detection monitoring events,
- The flow rates and directions of groundwater flow will be determined for the first and second halves of 2025 semi-annual detection monitoring events,
- Statistical analysis and identification of potential SSIs will be performed for the first and second halves of 2025 semi-annual detection monitoring events,
- NRG will notify TCEQ, if required, if potential SSIs are identified and whether ASDs will be prepared for the first and second halves of 2025 semi-annual detection monitoring events, and
- Written ASDs will be prepared and submitted to TCEQ for review and approval, if required, to evaluate potential SSIs above background for the first and second halves of 2025 semi-annual detection monitoring events.

Section 8
References

Federal Register, Vol. 80 No. 74, April 17, 2015, 40 CFR Parts 257 and 261, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule.

Federal Register, Vol. 85, No. 168, August 28, 2020, 40 CFR Part 257, Hazardous and Solid Waste Management System; Disposal of CCR from Electric Utilities; A Holistic Approach to Closure Part A: Deadline to Initiate Closure.

ERM, Sampling and Analysis Plan, October 2017, W.A. Parish Electric Generating Station, Thompsons, Texas.

ERM, CCR Statistical Analysis Plan, October 2017, W.A. Parish Electric Generating Station, Thompsons, Texas.

TCEQ, Draft Technical Guidance No. 32, Coal Combustion Residuals Groundwater Monitoring and Corrective Action.

TCEQ, 30 TAC Chapter 352, Coal Combustion Residuals Waste Management and Registration Program for Coal Combustion Residuals (CCR) Implementation.

TRC, 2018 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2019, W.A. Parish Electric Generating Station, Secondary E Pond (Unit 003) and Landfill (Unit 004), Thompsons, Texas.

TRC, 2019 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2020, W.A. Parish Electric Generating Station, Secondary E Pond (Unit 003) and Landfill (Unit 004), Thompsons, Texas.

TRC, 2020 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2021, W.A. Parish Electric Generating Station, Secondary E Pond (Unit 003) and Landfill (Unit 004), Thompsons, Texas.

TRC, 2021 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2022, W.A. Parish Electric Generating Station, Secondary E Pond (Unit 003) and Landfill (Unit 004), Thompsons, Texas.

TRC, 2022 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2023, W.A. Parish Electric Generating Station, Secondary E Pond (Unit 003) and Landfill (Unit 004), Thompsons, Texas.

TRC, 2023 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2024, W.A. Parish Electric Generating Station, Secondary E Pond (Unit 003) and Landfill (Unit 004), Thompsons, Texas.

TRC, Alternative Source Demonstration, July 2024, W.A. Parish Electric Generating Station, FGD Emergency Pond (SWMU 020), Thompsons, Texas.

TRC, Alternative Source Demonstration, July 2024, W.A. Parish Electric Generating Station, Air Preheater Pond (SWMU 021), Thompsons, Texas.

TRC, Alternative Source Demonstration, July 2024, W.A. Parish Electric Generating Station, Solid Waste Disposal Area (SWMU 001) CCR Multiunit, Jewett, Texas.

TRC, Alternative Source Demonstration, December 2024, W.A. Parish Electric Generating Station, FGD Emergency Pond (SWMU 020), Thompsons, Texas.

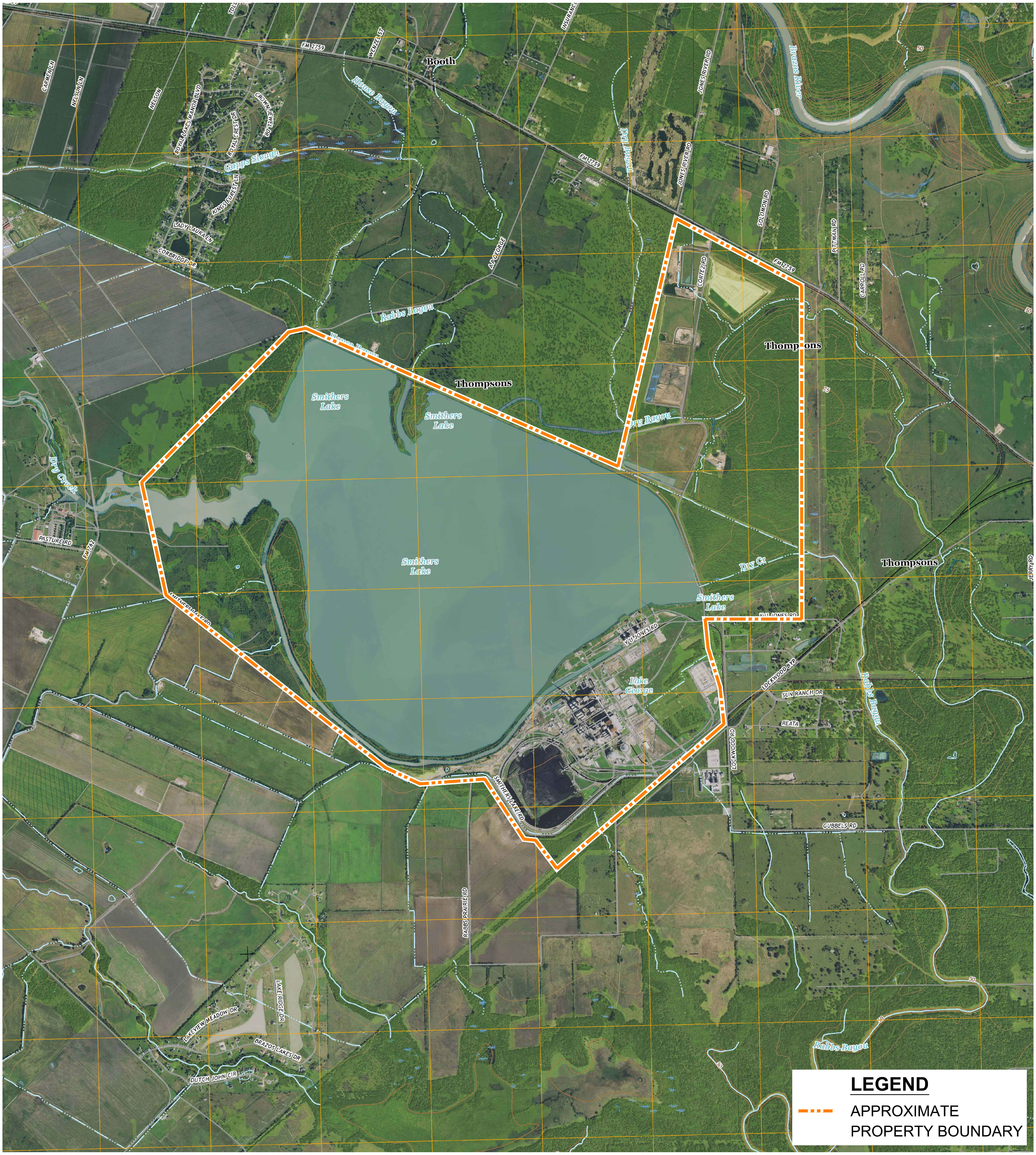
TRC, Alternative Source Demonstration, December 2024, W.A. Parish Electric Generating Station, Air Preheater Pond (SWMU 021), Thompsons, Texas.

TRC, Alternative Source Demonstration, December 2024, W.A. Parish Electric Generating Station, Solid Waste Disposal Area (SWMU 001), Thompsons, Texas.

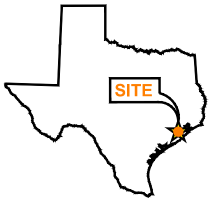
TRC, Groundwater Monitoring System Certification, August 2018, W.A. Parish Electric Generating Station, Thompsons, Texas.

TRC, Statistical Methods Certification, August 2018, W.A. Parish Electric Generating Station, Thompsons, Texas.

Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
MISSOURI CITY, TEXAS (2016) / SMITHERS LAKE, TEXAS (2016) / SUGAR LAND, TEXAS (2016) / THOMPSONS, TEXAS (2016)



TEXAS
QUADRANGLE LOCATION

N

0 2,000' 4,000' 8,000'

SCALE IN FEET
1" = 4,000'-0"

CLIENT / PROJECT

NRG TEXAS POWER, LLC
W.A. Parish Station
Thompsons, Texas

TITLE

SITE LOCATION MAP

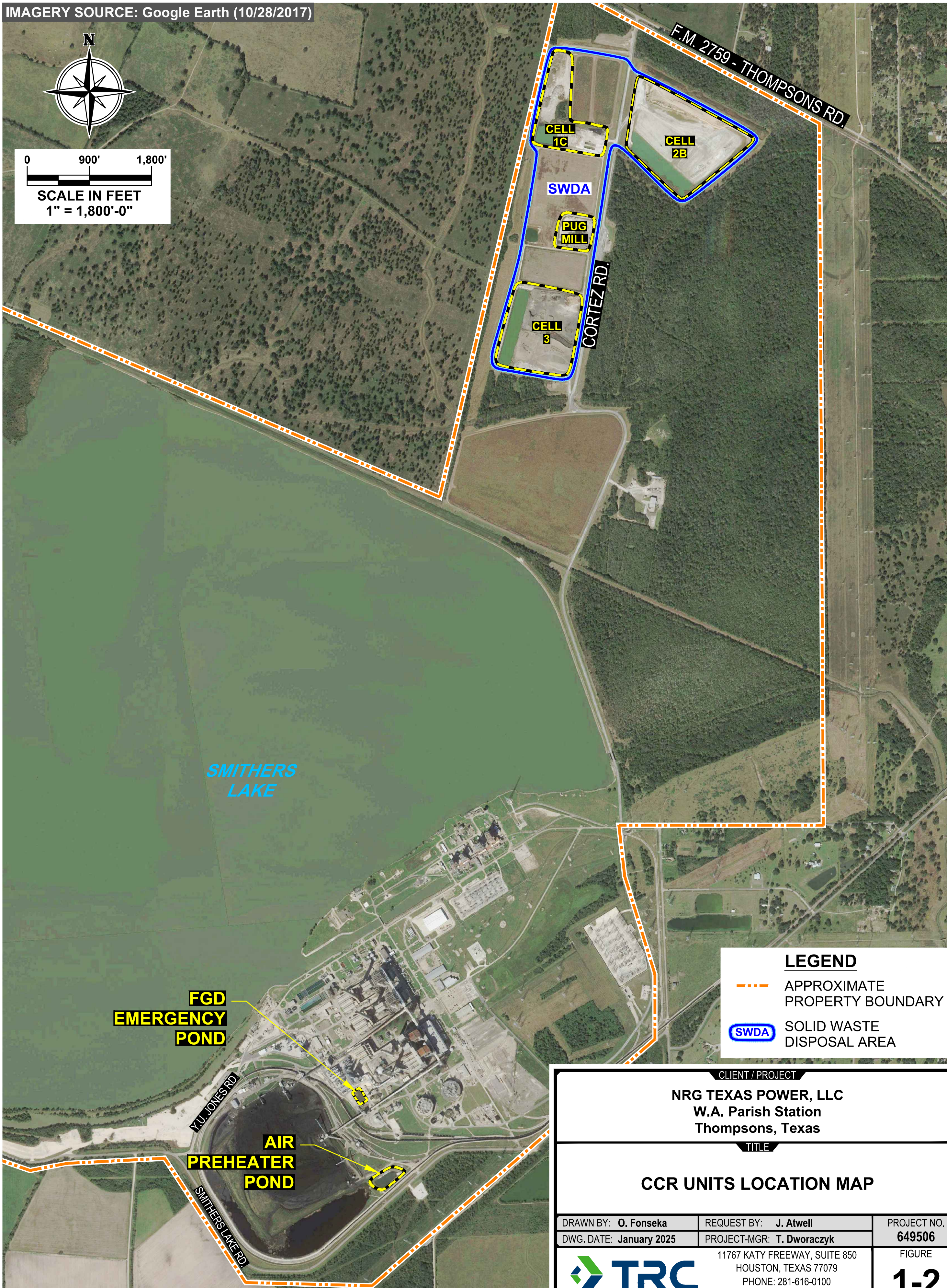
DRAWN BY: O. Fonseka	REQUEST BY: J. Atwell	PROJECT NO. 649506
DWG. DATE: January 2025	PROJECT-MGR: T. Dworaczyk	

TRC
11767 KATY FREEWAY, SUITE 850
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE
1-1

LAST EDIT: 01/22/2025 - FILE LOCATION: HOU C:\OF-TRC\DRAFTING-CDrive\ECR-Files\NRG\W.A. Parish Station - Thompsons-TX\2025\ Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg

DRAWING By: Oskar Fonseka - FILE NAME: Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg



CLIENT / PROJECT

NRG TEXAS POWER, LLC
W.A. Parish Station
Thompsons, Texas

TITLE

CCR UNITS LOCATION MAP

DRAWN BY: O. Fonseka	REQUEST BY: J. Atwell	PROJECT NO. 649506
DWG. DATE: January 2025	PROJECT-MGR: T. Dworaczyk	

TRC

11767 KATY FREEWAY, SUITE 850
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE
1-2

LAST EDIT: 01/22/2025 - FILE LOCATION: HOU C:\OF-TRC\DRAFTING-CDrive\ECR-Files\NRG\W.A. Parish Station - Thompsons-TX\2025\ Fig 1-2 - NRG-WAParishStation - CCR Units Location Map.dwg

DRAWING By: Oskar Fonseka - FILE NAME: Fig 1-2 - NRG-WAParishStation - CCR Units Location Map.dwg

LEGEND

- Upgradient Monitoring Well
- Downgradient Monitoring Well

0 250 500 Feet
1 " = 500 '
1:6,000
N

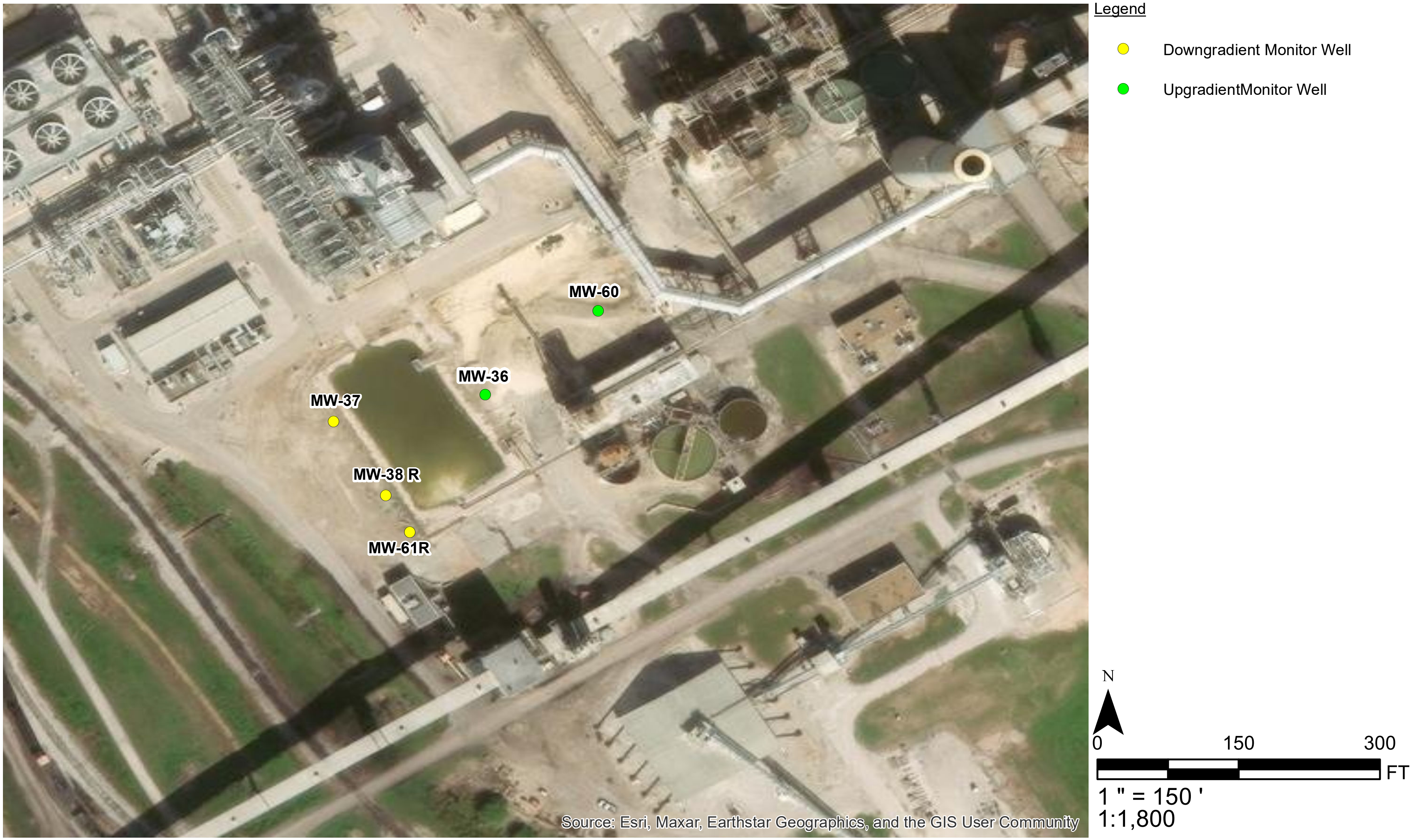
NOTE:
R = Monitoring Well replaced in 2019

TRC
11767 Katy Freeway, Suite 230
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT:	NRG TEXAS POWER, LLC W.A. PARISH STATION THOMPSONS, TEXAS
TITLE:	SOLID WASTE DISPOSAL AREA GROUNDWATER MONITORING NETWORK

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	
DATE:	JANUARY 2023
PROJ NO:	478259.0001.0000
FILE:	478259.0001_2-1.mxd

FIGURE 2-1



TRC
11767 Katy Freeway, Suite 230
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT:

NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

FGD EMERGENCY POND
GROUNDWATER MONITORING NETWORK

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	November 2024
PROJ. NO:	478259.0001.0000
FILE:	478259.0001_2-2

FIGURE 2-2

Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well

AERIAL IMAGE SOURCE: GOOGLE EARTH AND THEIR DATA PARTNERS (10/28/2017).

N

0 150 300 FT

1 " = 150 '
1:1,800

11767 Katy Freeway, Suite 230
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT:

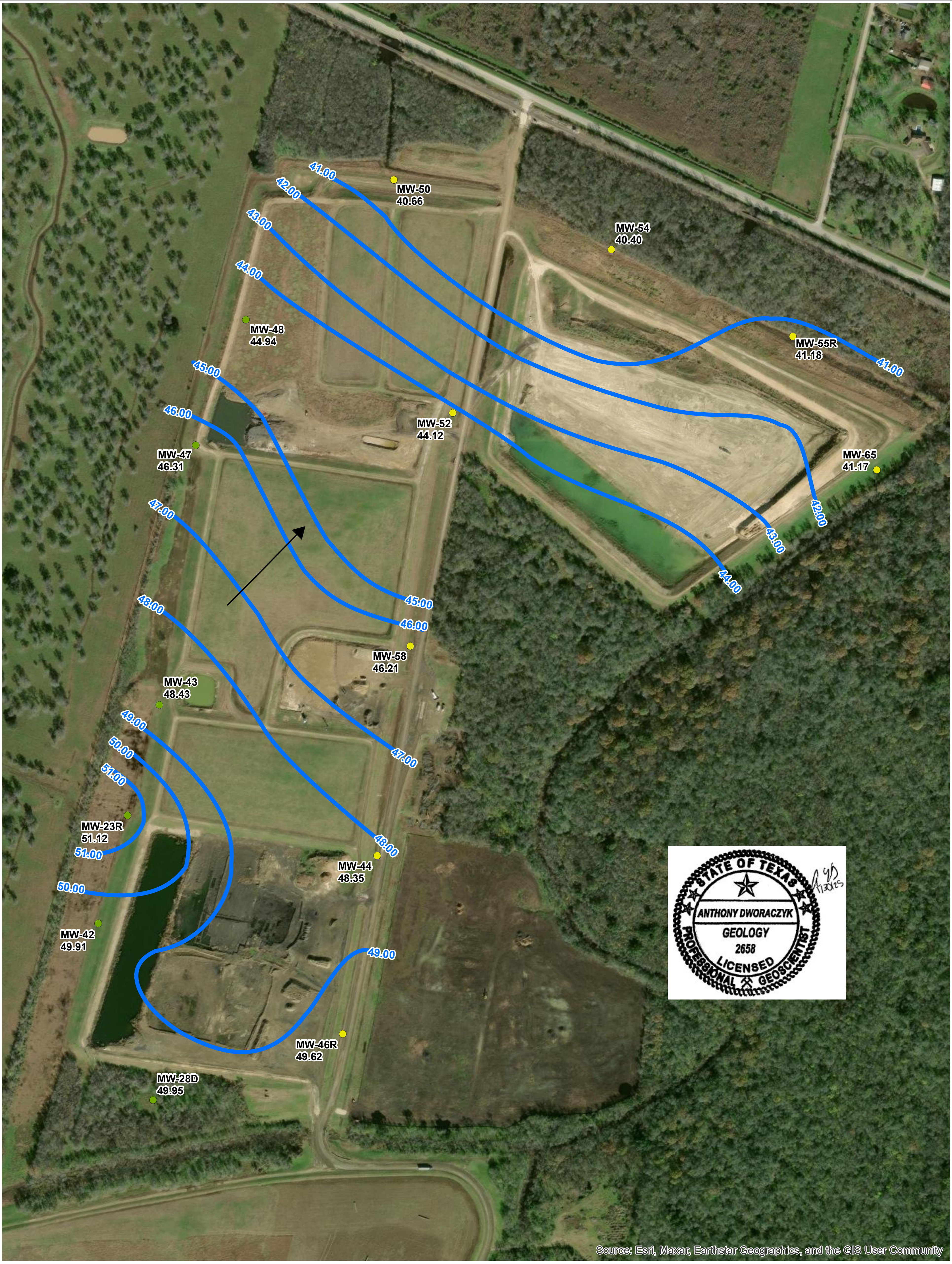
NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

AIR PREHEATER POND
GROUNDWATER MONITORING NETWORK

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	
DATE:	JANUARY 2023
PROJ. NO.:	478259.0001.0000
FILE:	478259.0001_2-3.mxd

FIGURE 2-3



LEGEND

- Multiunit Upgradient Monitor Well
- Multiunit Downgradient Monitor Well
- *49.95* Groundwater Elevation (FT MSL)

- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)

NOTE: GROUNDWATER ELEVATION MEASURED BY HMI ON MARCH 2024.

0 250 500 Feet

1 " = 500 '

1:6,000

N

TRC

11767 Katy Freeway
Suite 230
Houston, TX 77079
713.244.1000
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PROJECT:

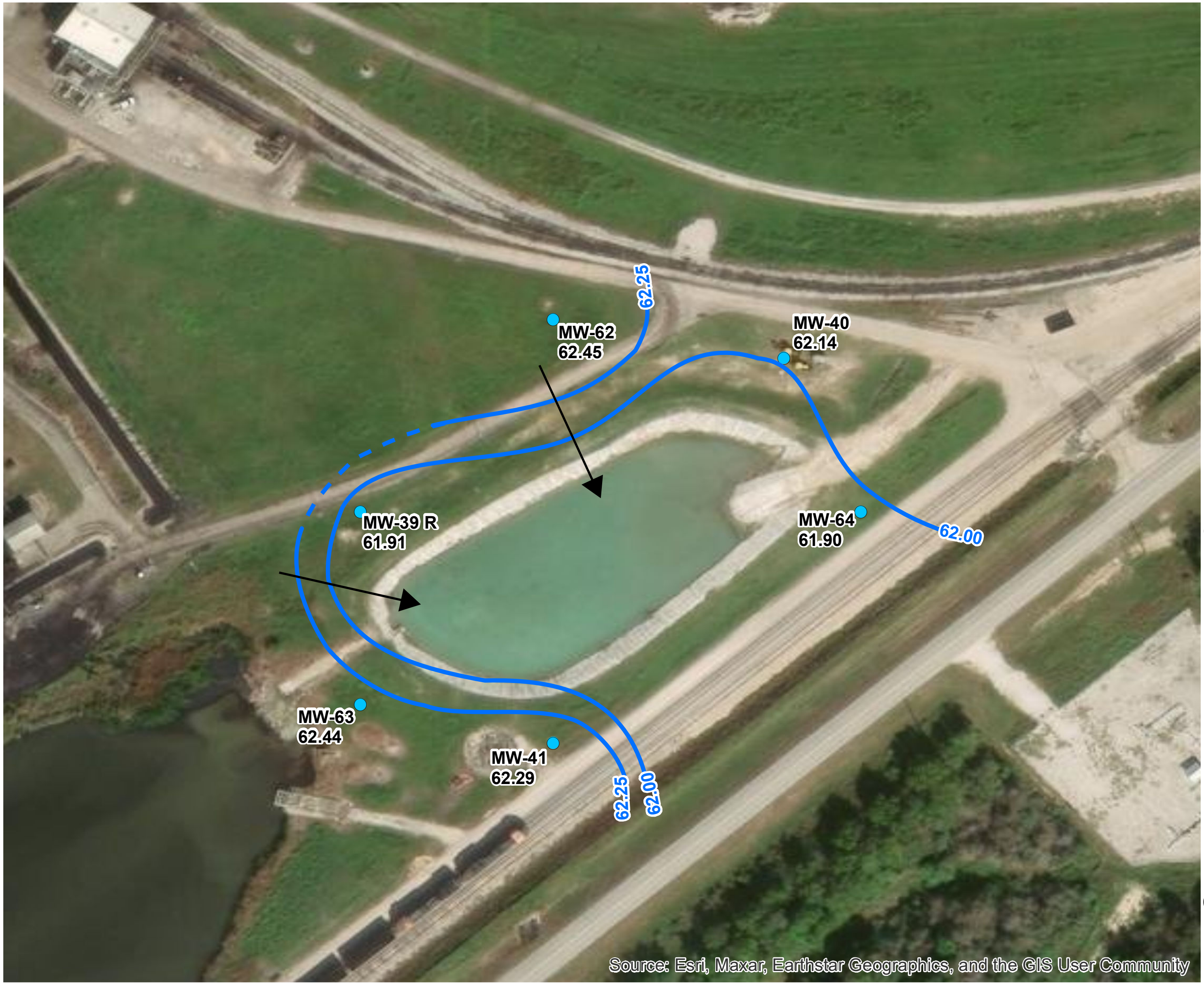
NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

SOLID WASTE DISPOSAL AREA
GROUNDWATER POTENTIOMETRIC SURFACE MAP MARCH 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	JULY 2024
PROJ NO:	585638.0000.0000
FILE:	585638.0000_2-4.mxd

FIGURE 2-4



Legend

- Monitor Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- ***61.90*** Groundwater Elevation (FT MSL)

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON MARCH 2024.

N

0 150 300 FT

1 " = 150 '
1:1,800

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Houston, TX 77079
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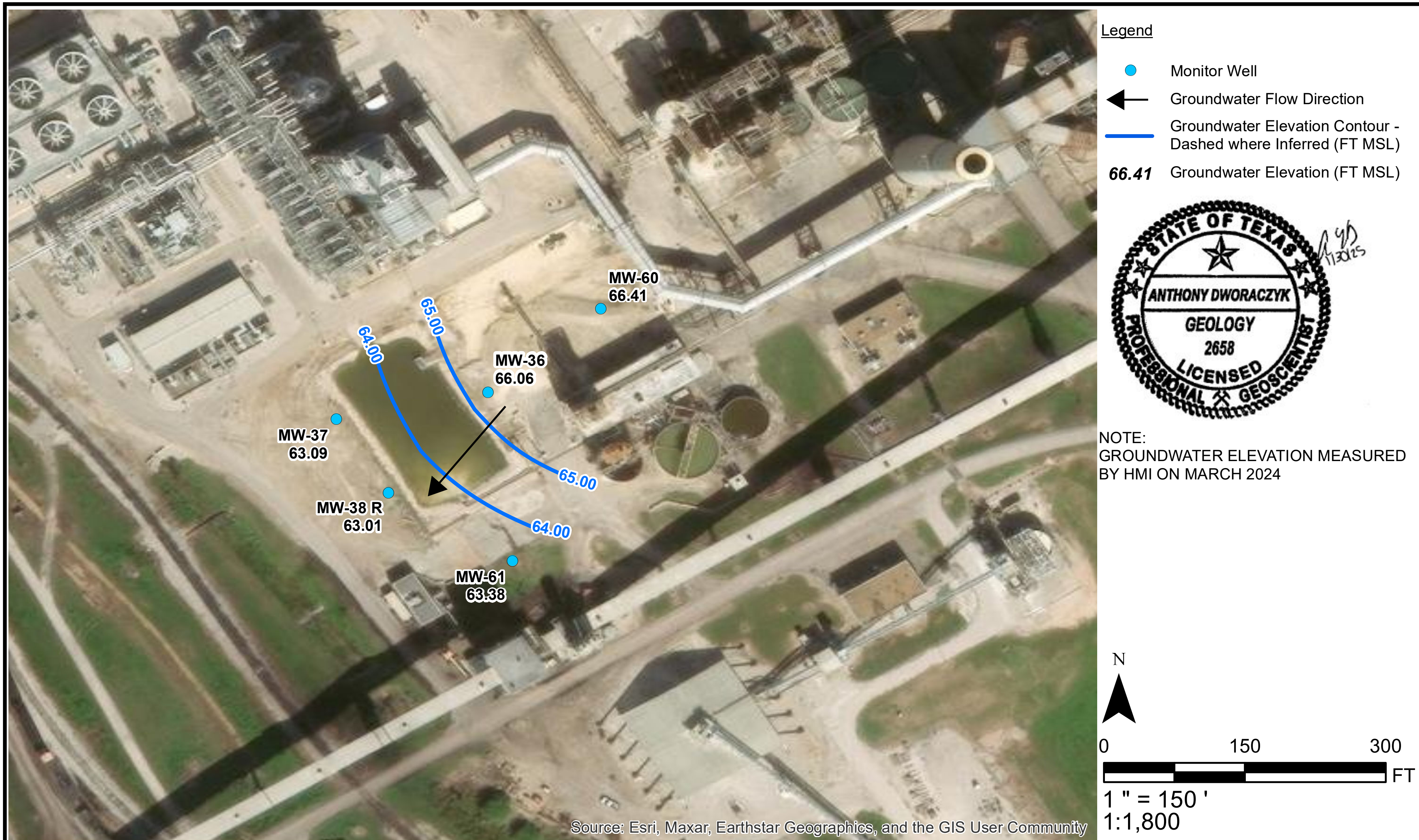
PROJECT:
NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:
AIR PREHEATER POND
GROUNDWATER POTENTIOMETRIC SURFACE MAP MARCH 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	JULY 2024
PROJ. NO.:	585638.0000.0001
FILE:	585638.0000_2-5

FIGURE 2-5



NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON MARCH 2024

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PROJECT:

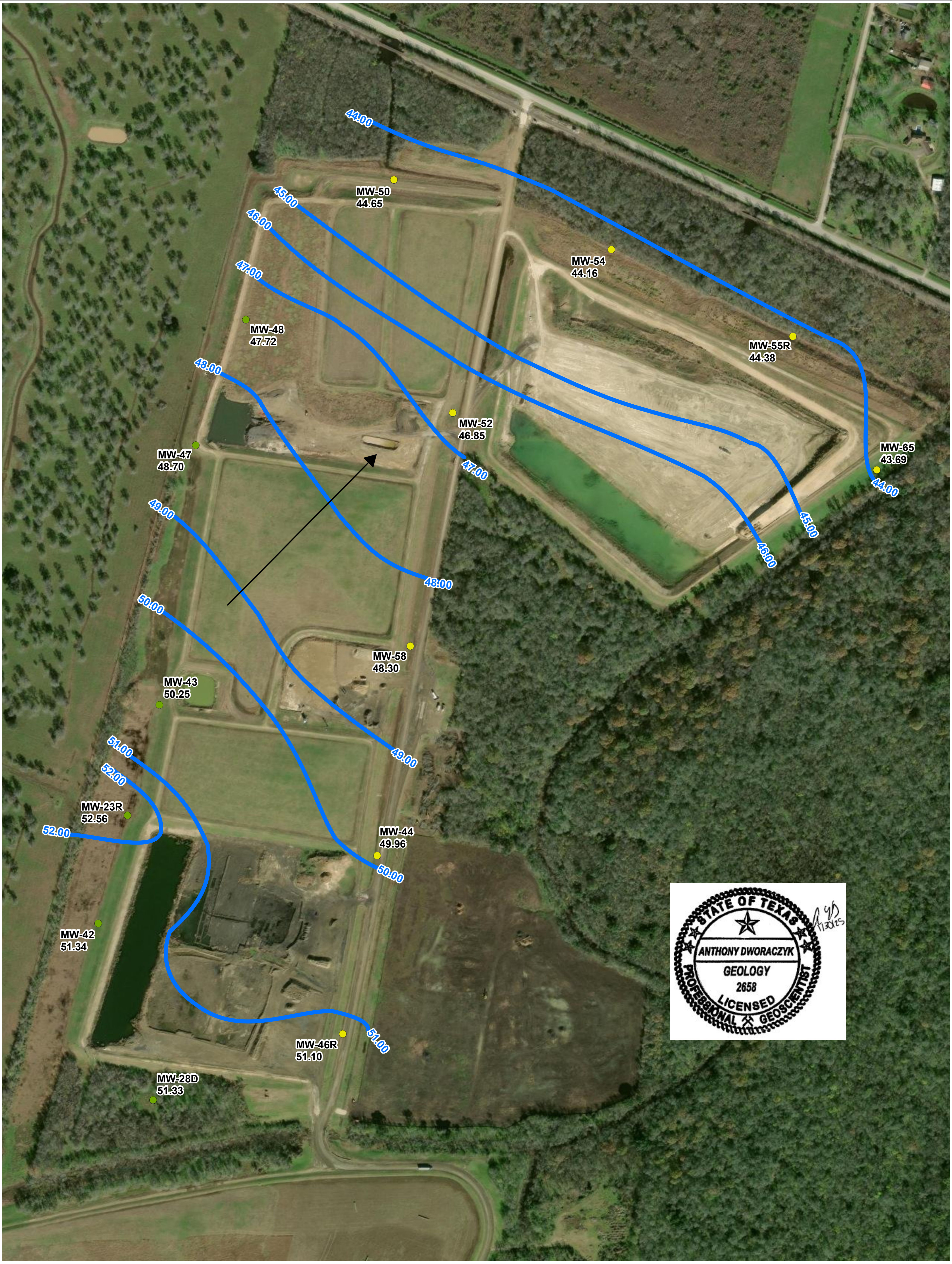
NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

FGD EMERGENCY POND
GROUNDWATER POTENTIOMETRIC SURFACE MAP MARCH 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	JULY 2024
PROJ. NO:	585638.0000.0001
FILE:	585638.0000_2-6.mxd

FIGURE 2-6



LEGEND

- Multiunit Upgradient Monitor Well
- Multiunit Downgradient Monitor Well
- *51.33* Groundwater Elevation (FT MSL)

Groundwater Flow Direction

Groundwater Elevation Contour - Dashed where Inferred (FT MSL)

NOTE: GROUNDWATER ELEVATION MEASURED BY HMI ON AUGUST 2024.

0 250 500 Feet

1 " = 500 '

1:6,000

N

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PROJECT:

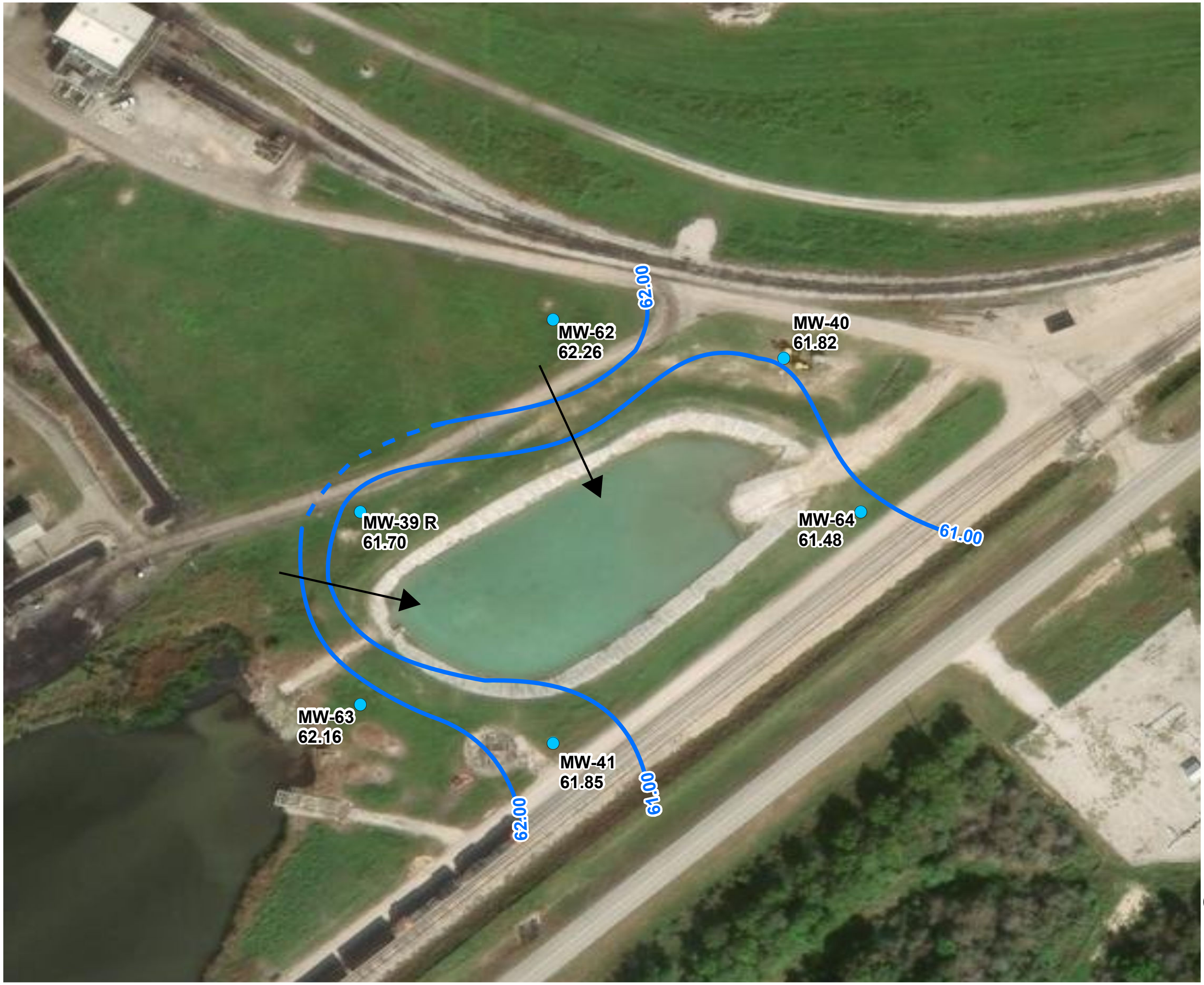
NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

SOLID WASTE DISPOSAL AREA
GROUNDWATER POTENTIOMETRIC SURFACE MAP AUGUST 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	DECEMBER 2024
PROJ NO:	585638.0000.0000
FILE:	585638.0000_2-7.mxd

FIGURE 2-7



Legend

- Monitor Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- *61.82* Groundwater Elevation (FT MSL)

STATE OF TEXAS
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NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON SEPTEMBER 2024.

N

0 150 300 FT

1 " = 150 '
1:1,800

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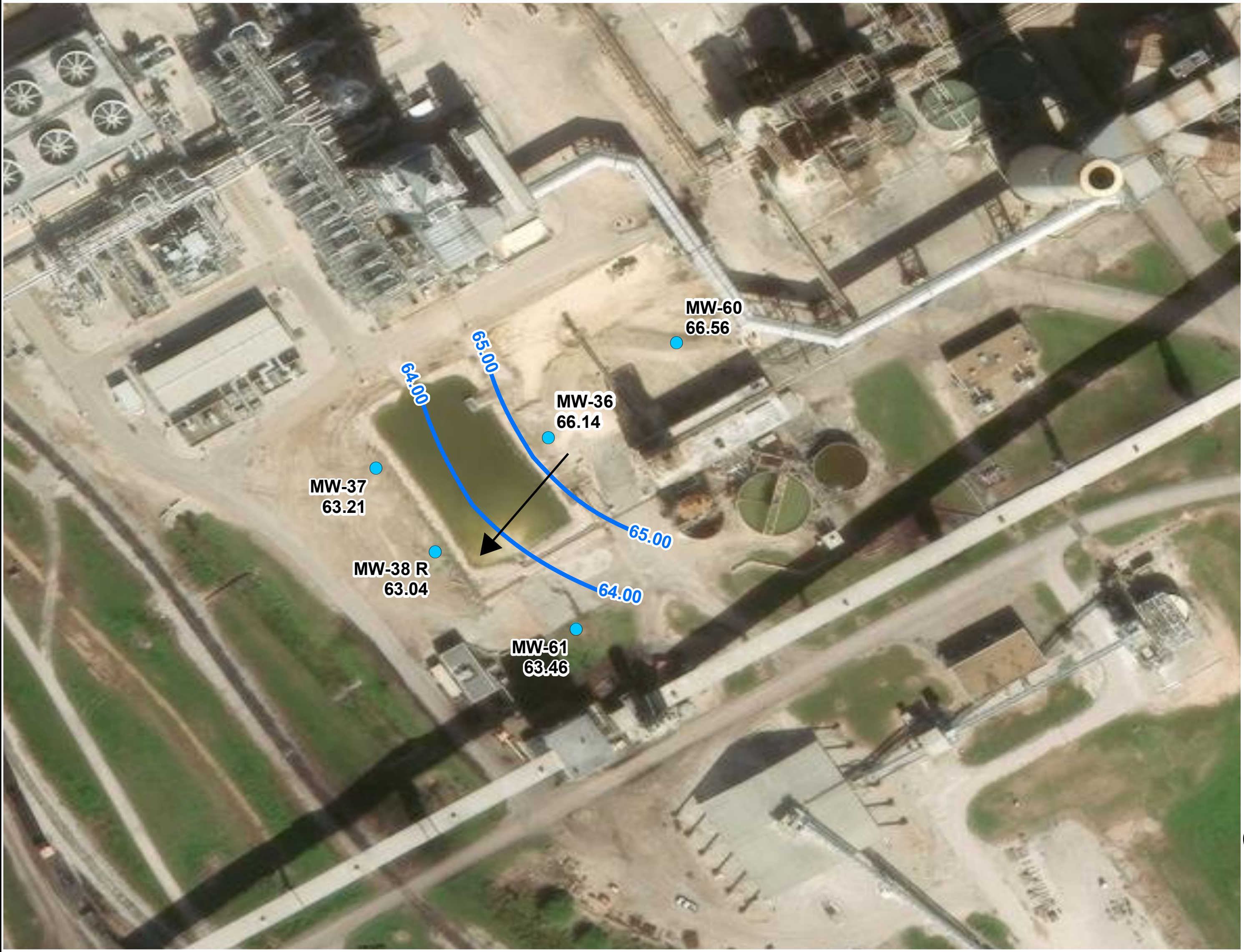
PROJECT:	NRG TEXAS POWER, LLC W.A. PARISH STATION THOMPSONS, TEXAS
TITLE:	AIR PREHEATER POND GROUNDWATER POTENTIOMETRIC SURFACE MAP AUGUST 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	JULY 2024
PROJ. NO.:	585638.0000.0001
FILE:	585638.0000_2-8

FIGURE 2-8



Legend

- Monitor Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- ***66.56*** Groundwater Elevation (FT MSL)

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PROFESSIONAL GEOSCIENTIST

AD 1/30/25

NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON AUGUST 2024

N

0 150 300 FT

1 " = 150 '
1:1,800

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PROJECT:

NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

FGD EMERGENCY POND
GROUNDWATER POTENTIOMETRIC SURFACE MAP AUGUST 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	DECEMBER 2024
PROJ. NO:	585638.0000.0001
FILE:	585638.0000_2-9.mxd

FIGURE 2-9

Tables

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
WA Parish Electric Generating Station - Thompsons, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
Air Heater Pond					
Downgradient	MW-41	2/9/2022	69.18	5.89	63.29
	MW-41	4/1/2022	69.18	7.06	62.12
	MW-41	5/20/2022	69.18	8.49	60.69
	MW-41	10/4/2022	69.18	8.74	60.44
	MW-41	4/3/2023	69.18	8.01	61.17
	MW-41	5/1/2023	69.18	7.36	61.82
	MW-41	10/9/2023	69.18	9.25	59.93
	MW-41	3/1/2024	69.18	6.89	62.29
	MW-41	8/28/2024	69.18	7.33	61.85
	MW-63	2/9/2022	70.35	7.03	63.32
	MW-63	4/1/2022	70.35	8.22	62.13
	MW-63	5/20/2022	70.35	9.52	60.83
	MW-63	10/4/2022	70.35	9.33	61.02
	MW-63	11/22/2022	70.35	8.42	61.93
	MW-63	4/3/2023	70.35	8.91	61.44
	MW-63	5/1/2023	70.35	8.49	61.86
	MW-63	10/9/2023	70.35	10.02	60.33
	MW-63	11/1/2023	70.35	10.85	59.50
	MW-63	3/1/2024	70.35	7.91	62.44
	MW-63	3/29/2024	70.35	7.68	62.67
	MW-63	8/28/2024	70.35	8.19	62.16
	MW-63	9/26/2024	70.35	9.65	60.70
	MW-64	2/9/2022	70.00	6.75	63.25
	MW-64	4/1/2022	70.00	8.08	61.92
	MW-64	10/4/2022	70.00	10.32	59.68
	MW-64	4/3/2023	70.00	9.31	60.69
	MW-64	10/9/2023	70.00	10.58	59.42
	MW-64	11/1/2023	70.00	11.54	58.46
	MW-64	3/1/2024	70.00	8.10	61.90
	MW-64	8/28/2024	70.00	8.52	61.48
	MW-64	9/26/2024	70.00	9.68	60.32
Upgradient	MW-40	4/1/2022	73.92	11.82	62.10
	MW-40	10/4/2022	73.92	13.99	57.68
	MW-40	4/3/2023	73.92	12.96	60.96
	MW-40	10/9/2023	73.92	14.18	59.74
	MW-40	3/1/2024	73.92	11.78	62.14
	MW-40	8/28/2024	73.92	12.10	61.82
	MW-62	4/1/2022	72.59	10.35	62.24
	MW-62	10/4/2022	72.59	11.99	60.60
	MW-62	4/3/2023	72.59	11.18	61.41
	MW-62	10/9/2023	72.59	12.36	60.23
	MW-62	11/1/2023	72.59	13.20	59.39
	MW-62	3/1/2024	72.59	10.14	62.45
	MW-62	8/28/2024	72.59	10.33	62.26

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
WA Parish Electric Generating Station - Thompsons, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
	MW-39R	4/1/2022	73.50	11.92	61.58
	MW-39R	10/4/2022	73.50	13.17	60.33
	MW-39R	4/3/2023	73.50	12.59	60.91
	MW-39R	10/9/2023	73.50	13.80	59.70
	MW-39R	3/1/2024	73.50	11.59	61.91
	MW-39R	8/28/2024	73.50	11.80	61.70
CCR - SWDA					
	MW-44	4/1/2022	64.42	13.26	51.16
	MW-44	10/4/2022	64.42	16.17	48.25
	MW-44	4/3/2023	64.42	19.30	48.75
	MW-44	5/1/2023	64.42	19.23	48.82
	MW-44	10/9/2023	64.42	20.97	47.08
	MW-44	3/1/2024	64.42	19.70	44.72
	MW-44	8/28/2024	64.42	18.09	46.33
	MW-46R	4/1/2022	67.92	15.83	52.09
	MW-46R	10/4/2022	67.92	18.39	49.53
	MW-46R	4/3/2023	67.92	17.91	50.01
	MW-46R	5/1/2023	67.92	17.90	50.02
	MW-46R	10/9/2023	67.92	19.56	48.36
	MW-46R	3/1/2024	67.92	18.30	49.62
	MW-46R	3/29/2024	67.92	18.03	49.89
	MW-46R	8/28/2024	67.92	16.82	51.10
	MW-50	4/1/2022	71.27	27.24	44.03
	MW-50	10/4/2022	71.27	29.97	41.30
	MW-50	4/3/2023	71.27	30.22	41.05
	MW-50	10/9/2023	71.27	31.17	40.10
	MW-50	11/1/2023	71.27	31.38	39.89
	MW-50	3/1/2024	71.27	30.61	40.66
	MW-50	3/29/2024	71.27	30.33	40.94
	MW-50	8/28/2024	71.27	26.62	44.65
	MW-50	9/26/2024	71.27	27.19	44.08
	MW-52	4/1/2022	67.91	11.54	56.37
	MW-52	10/4/2022	67.91	23.41	44.50
	MW-52	4/3/2023	67.91	23.31	44.60
	MW-52	10/9/2023	67.91	24.63	43.28
	MW-52	11/1/2023	67.91	24.86	43.05
	MW-52	3/1/2024	67.91	23.79	44.12
	MW-52	8/28/2024	67.91	21.06	46.85
	MW-52	9/26/2024	67.91	21.38	46.53

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
WA Parish Electric Generating Station - Thompsons, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
Downgradient	MW-54	4/1/2022	68.29	24.50	43.79
	MW-54	10/4/2022	68.29	27.29	41.00
	MW-54	4/3/2023	68.29	27.52	40.77
	MW-54	10/9/2023	68.29	28.49	39.80
	MW-54	11/1/2023	68.29	28.71	39.58
	MW-54	3/1/2024	68.29	27.89	40.40
	MW-54	8/28/2024	68.29	24.13	44.16
	MW-55R	4/1/2022	69.82	25.30	44.52
	MW-55R	10/4/2022	69.82	28.13	41.69
	MW-55R	4/3/2023	69.82	28.28	41.54
	MW-55R	10/9/2023	69.82	29.39	40.43
	MW-55R	11/1/2023	69.82	29.58	40.24
	MW-55R	3/1/2024	69.82	28.64	41.18
	MW-55R	8/28/2024	69.82	25.44	44.38
	MW-55R	9/26/2024	69.82	25.78	44.04
	MW-58	2/9/2022	65.40	15.57	49.83
	MW-58	2/10/2022	65.40	15.58	49.82
	MW-58	4/1/2022	65.40	16.11	49.29
	MW-58	10/4/2022	65.40	19.06	46.34
	MW-58	4/3/2023	65.40	18.70	46.70
	MW-58	10/9/2023	65.40	20.23	45.17
	MW-58	11/1/2023	65.40	20.43	44.97
	MW-58	3/1/2024	65.40	19.19	46.21
	MW-58	8/28/2024	65.40	17.10	48.30
	MW-65	4/1/2022	66.65	22.10	44.55
	MW-65	10/4/2022	66.65	25.03	41.62
	MW-65	10/4/2022	66.65	25.03	41.62
	MW-65	4/3/2023	66.65	25.18	41.47
	MW-65	10/9/2023	66.65	26.36	40.29
	MW-65	11/1/2023	66.65	26.52	40.13
	MW-65	3/1/2024	66.65	25.48	41.17
	MW-65	3/29/2024	66.65	25.30	41.35
	MW-65	8/28/2024	66.65	22.96	43.69
	MW-65	9/26/2024	66.65	23.13	43.52
	MW-28D	4/1/2022	70.37	18.02	52.35
	MW-28D	5/20/2022	70.37	18.90	51.47
	MW-28D	10/4/2022	70.37	20.47	49.90
	MW-28D	4/3/2023	70.37	20.03	50.34
	MW-28D	10/9/2023	70.37	21.67	48.70
	MW-28D	3/1/2024	70.37	20.42	49.95
	MW-42	4/1/2022	65.88	13.49	52.39
	MW-42	10/4/2022	65.88	15.98	49.90
	MW-42	4/3/2023	65.88	15.49	50.39
	MW-42	10/9/2023	65.88	17.21	48.67
	MW-42	3/1/2024	65.88	15.97	49.91
	MW-42	8/28/2024	65.88	14.54	51.34

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
WA Parish Electric Generating Station - Thompsons, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
Upgradient	MW-43	4/1/2022	66.67	15.35	51.32
	MW-43	10/4/2022	66.67	18.12	48.55
	MW-43	4/3/2023	66.67	17.70	48.97
	MW-43	10/9/2023	66.67	19.36	47.31
	MW-43	3/1/2024	66.67	18.24	48.43
	MW-43	8/28/2024	66.67	16.42	50.25
	MW-47	4/1/2022	70.40	20.89	49.51
	MW-47	10/4/2022	70.40	23.79	46.61
	MW-47	4/3/2023	70.40	23.53	46.87
	MW-47	10/9/2023	70.40	25.08	45.32
	MW-47	3/1/2024	70.40	24.09	46.31
	MW-47	8/28/2024	70.40	21.70	48.70
	MW-48	4/1/2022	65.89	17.58	48.31
	MW-48	10/4/2022	65.89	20.51	45.38
	MW-48	4/3/2023	65.89	20.38	45.51
	MW-48	10/9/2023	65.89	21.78	44.11
	MW-48	11/1/2023	65.89	22.02	43.87
	MW-48	3/1/2024	65.89	20.95	44.94
	MW-48	3/29/2024	65.89	20.76	45.13
	MW-48	8/28/2024	65.89	18.17	47.72
	MW-23R	4/1/2022	67.01	13.25	53.76
	MW-23R	5/20/2022	67.01	14.30	52.71
	MW-23R	10/4/2022	67.01	15.92	49.55
	MW-23R	11/22/2022	67.01	15.66	51.35
	MW-23R	4/3/2023	67.01	15.42	51.59
	MW-23R	5/1/2023	67.01	15.39	51.62
	MW-23R	10/9/2023	67.01	17.10	49.91
	MW-23R	11/1/2023	67.01	17.19	49.82
	MW-23R	3/1/2024	67.01	15.89	51.12
	MW-23R	3/29/2024	67.01	15.63	51.38
	MW-23R	8/28/2024	67.01	14.45	52.56
	MW-23R	9/26/2024	67.01	14.84	52.17

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
WA Parish Electric Generating Station - Thompsons, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
E Pond					
Downgradient	MW-37	2/9/2022	74.17	10.80	63.37
	MW-37	4/1/2022	74.17	11.58	62.59
	MW-37	5/20/2022	74.17	12.08	62.09
	MW-37	10/4/2022	74.17	12.18	61.99
	MW-37	4/3/2023	74.17	11.65	62.52
	MW-37	5/1/2023	74.17	11.39	62.78
	MW-37	10/9/2023	74.17	9.18	64.99
	MW-37	11/1/2023	74.17	12.97	61.20
	MW-37	3/1/2024	74.17	11.08	63.09
	MW-37	3/29/2024	74.17	10.88	63.29
	MW-37	8/28/2024	74.17	10.96	63.21
	MW-37	9/26/2024	74.17	11.82	62.35
	MW-38R	4/1/2022	73.68	11.12	62.56
	MW-38R	5/20/2022	73.68	11.68	62.00
	MW-38R	10/4/2022	73.68	11.84	61.84
	MW-38R	4/3/2023	73.68	11.27	62.41
	MW-38R	5/1/2023	73.68	11.02	62.66
	MW-38R	10/9/2023	73.68	12.28	61.40
	MW-38R	11/1/2023	73.68	12.67	61.01
	MW-38R	3/1/2024	73.68	10.67	63.01
	MW-38R	3/29/2024	73.68	10.48	63.20
	MW-38R	8/28/2024	73.68	10.64	63.04
	MW-38R	9/26/2024	73.68	11.50	62.18
	MW-61	4/1/2022	74.49	11.56	62.93
	MW-61	5/20/2022	74.49	12.13	62.36
	MW-61	10/4/2022	74.49	12.36	62.13
	MW-61	4/3/2023	74.49	11.76	62.73
	MW-61	5/1/2023	74.49	11.47	63.02
	MW-61	10/9/2023	74.49	12.69	61.80
	MW-61	11/1/2023	74.49	13.06	61.43
	MW-61	3/1/2024	74.49	11.11	63.38
	MW-61	3/29/2024	74.49	10.92	63.57
	MW-61	8/28/2024	74.49	11.03	63.46
	MW-61	9/26/2024	74.49	11.99	62.50

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
WA Parish Electric Generating Station - Thompsons, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
Upgradient	MW-36	4/1/2022	73.81	8.03	65.78
	MW-36	10/4/2022	73.81	8.66	65.15
	MW-36	4/3/2023	73.81	8.68	65.13
	MW-36	10/9/2023	73.81	12.59	61.22
	MW-36	11/1/2023	73.81	9.53	64.28
	MW-36	3/1/2024	73.81	7.75	66.06
	MW-36	8/28/2024	73.81	7.67	66.14
	MW-60	4/1/2022	72.90	6.49	66.41
	MW-60	10/4/2022	72.90	7.40	65.50
	MW-60	4/3/2023	72.90	7.49	65.41
	MW-60	10/9/2023	72.90	7.92	64.98
	MW-60	3/1/2024	72.90	6.49	66.41
	MW-60	8/28/2024	72.90	6.34	66.56

Notes

MSL	Mean sea level
ft.	feet

Table 2-2
Summary of Groundwater Monitoring Data
2022-2024
WA Parish Electric Generating Station - Thompsons, Texas

			Analyte Group	NRG App III						
			Analyte	Boron	Calcium	Chloride	Fluoride	Sulfate	Total Dissolved Solids	pH, Field
			Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su
			Lab Method	SW6020A		E300	A4500-F C-11	E300	M2540C	NA
Well Description	**Well ID**	**Sample Date**	**Duplicate**							
Air Heater Pond										
Upgradient	MW-40	04/01/2022	N	0.133	265	**515**	< 0.10 U	137	**1660**	6.71
		10/04/2022	N	0.107 [J]	271	**461**	0.100	121	**1740**	6.75
		04/03/2023	N	0.101	290	**526**	0.100	117	**1830**	6.73
		10/09/2023	N	0.0627	253	**496**	0.100	120	**1420**	6.51
		03/01/2024	N	0.100	288	**520**	0.100	104	**1740**	6.62
		08/28/2024	N	0.0846	309	**585**	< 0.10 U	89.6	**1490**	6.58
	MW-62	04/01/2022	N	0.0922	209	**556**	< 0.10 U	119	**1500**	**6.48**
		10/04/2022	N	0.0946 [J]	177	**436**	0.150	202	**1520**	6.73
		04/03/2023	N	0.0903	181	**507**	0.150	178	**1620**	6.84
		10/09/2023	N	0.0718	202	**367**	0.170	**337**	**2590**	6.62
		11/01/2023	N	n/a	n/a	n/a	n/a	n/a	**1270**	6.66
		03/01/2024	N	0.0871 U	212	**431**	0.180	238	**1510**	6.80
		08/28/2024	N	0.0751	213	**467**	0.130	**271**	**1300**	6.74
	MW-39R	04/01/2022	N	0.217	210	**470**	< 0.10 U	82.7	**1280**	6.77
		10/04/2022	N	0.137	172	**429**	0.0900 J	87.9	**1470**	6.80
		04/03/2023	N	0.131	204	**443**	< 0.100 U	173	**1260**	6.71
		10/09/2023	N	0.0884	174	**327**	0.0900 J	132	**968**	6.65
		03/01/2024	N	0.172	205	**321**	< 0.10 U	246	**1200**	6.79
		08/28/2024	N	0.190	204	**342**	< 0.10 U	**351**	**1140**	6.75
Downgradient	MW-41	02/09/2022	N	n/a	n/a	n/a	0.22	n/a	n/a	6.79
		04/01/2022	N	0.0878	196	**465**	< 0.10 U	54.7	**1250**	7.25
		05/20/2022	N	n/a	n/a	n/a	n/a	n/a	n/a	7.39
		10/04/2022	N	0.0840 [J]	171	**449**	0.140	54.6	**1420**	6.94
		04/03/2023	N	0.0930	43.8	21.8	0.170	13.8	234	7.37
		05/01/2023	N	n/a	207	**500**	n/a	71.6	**1490**	6.64
		10/09/2023	N	0.0499	177	**488**	0.130	59.5	**1300**	6.53
		03/01/2024	N	0.0696 U	177	**481**	0.140	57.1	**1510**	6.73
		08/28/2024	N	0.0644	211	**564**	0.100	27.6	**1400**	6.83
	MW-63	02/09/2022	N	0.137	n/a	n/a	n/a	n/a	n/a	6.53
		04/01/2022	N	0.133	306	**376 [JL]**	< 0.10 U	**532 [JL]**	**1710**	6.68
		05/20/2022	N	n/a	287	**329**	n/a	**490**	n/a	6.56
		10/04/2022	N	0.124	335	**331**	0.0900 J	**581**	**1950**	6.75
		11/22/2022	N	n/a	334	n/a	n/a	**579**	n/a	6.59
		04/03/2023	N	0.0991	303	**333**	< 0.100 U	**606**	**1920**	6.71
		05/01/2023	N	n/a	335	n/a	n/a	**735**	n/a	6.73
		10/09/2023	N	0.445	285	**257**	0.100	**572**	**1490**	**6.41**
		11/01/2023	N	0.110	n/a	n/a	n/a	**661**	n/a	**6.45**
		03/01/2024	N	0.628	180	128	0.200	**370**	**968**	6.78
		03/29/2024	N	0.438	n/a	n/a	n/a	**364**	n/a	6.87
		08/28/2024	N	0.267	257	208	0.130	**571**	**1220**	6.65
		09/26/2024	N	0.262	n/a	n/a	n/a	**609**	n/a	6.60
	MW-64	02/09/2022	N	n/a	n/a	n/a	0.52	n/a	n/a	6.79
		04/01/2022	N	0.102	234	**522**	0.070 J	49.8	**1440**	6.72
		10/04/2022	N	0.103 [J]	230	**540**	0.200	47.8	**1990**	6.81
		04/03/2023	N	0.105	238	**574**	0.190	47.9	**1940**	6.71
		10/09/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	**6.41**
		10/09/2023	N	0.0756	237	**560**	0.170	50.3	**3130**	n/a
		11/01/2023	N	n/a	n/a	n/a	n/a	n/a	**1620**	**6.48**
		03/01/2024	N	0.0939 U	262	**548**	0.190	52.8	**1920**	6.64
		08/28/2024	N	0.0898	316	**623**	0.190	22.9	**1680**	6.64
		09/26/2024	N	n/a	259	n/a	n/a	n/a	n/a	6.58
Solid Waste Disposal Area										
Upgradient	MW-28D	04/01/2022	N	0.163	116	163	0.090 J	92.4	**774**	6.80
		05/20/2022	N	n/a	n/a	n/a	n/a	89.2	n/a	7.20
		10/04/2022	N	0.147	134	216	0.240	85.3	**900**	7.23
		04/03/2023	N	0.156	126	176	0.250	92.3	**820**	7.17
		10/09/2023	N	0.139	118	142	0.280	95.6	**590**	7.14
		03/01/2024	N	0.148	114	136	0.320	99.1	**764**	6.94
		08/28/2024	N	0.133	151	200	0.240	94.1	**768**	7.10
	MW-42	04/01/2022	N	0.501	156	**333**	0.61	**504**	**1590**	7.32
		10/04/2022	N	0.533	163	**320**	0.530	**456**	**1660**	7.06
		04/03/2023	N	0.506	155	**329**	0.520	**537**	**1680**	6.99
		10/09/2023	N	0.444	139	**304**	0.540	**471**	**640**	6.88
		03/01/2024	N	0.553	161	**307**	0.610	**544**	**1860**	7.22

Table 2-2
Summary of Groundwater Monitoring Data
2022-2024
WA Parish Electric Generating Station - Thompsons, Texas

			Analyte Group	NRG App III						
			Analyte	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**Sulfate**	**Total Dissolved Solids**	**pH, Field**
			Unit	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**su**
			Lab Method	**SW6020A**		**E300**	**A4500-F C-11**	**E300**	**M2540C**	**NA**
Well Description	**Well ID**	**Sample Date**	**Duplicate**							
		08/28/2024	N	0.488	158	**336**	0.540	**648**	**1480**	7.46
	MW-43	04/01/2022	N	0.381	89.5	236	0.65	70.2	**836**	7.43
		10/04/2022	N	0.385	93.3	226	0.500	68.4	**1000**	7.18
		04/03/2023	N	0.397	91.5	234	0.500	72.4	**804**	7.19
		10/09/2023	N	0.306	74.7	213	0.530	72.1	**592**	7.17
		03/01/2024	N	0.366	85.6	218	0.590	76.3	**868**	7.26
		08/28/2024	N	0.325	85.4	245	0.530	78.1	**748**	7.07
	MW-47	04/01/2022	N	0.237	130	**343**	0.38	71.2	**1030**	7.19
		10/04/2022	N	0.263	122	**298**	0.370	73.9	**1050**	7.12
		04/03/2023	N	0.243	109	**323**	0.330	79.8	**976**	7.15
		10/09/2023	N	0.224	113	**297**	0.360	76.6	**800**	6.94
		03/01/2024	N	0.249	121	**311**	0.430	86.0	**1030**	6.93
		08/28/2024	N	0.222	122	**322**	0.330	83.9	**800**	6.99
	MW-48	04/01/2022	N	0.603	79.3	**404**	0.73	94.0	**1180**	7.14
		10/04/2022	N	0.601	78.7	**362**	0.710	89.1	**1210**	7.16
		04/03/2023	N	0.583 [J]	82.4	**390**	0.610	95.5	**1140**	7.20
		10/09/2023	N	0.735	74.5	**365**	0.660	95.5	**940**	6.90
		11/01/2023	N	n/a	n/a	n/a	n/a	n/a	**1140**	7.06
		03/01/2024	N	0.585	75.2	**368**	0.720	98.1	**1080**	7.03
		03/29/2024	N	n/a	n/a	n/a	n/a	n/a	n/a	7.05
		08/28/2024	N	0.507	73.6	**427**	0.660	80.8	**988**	6.92
	MW-23R	04/01/2022	N	0.270	492	**1050**	0.10	**1200**	**3960**	7.03
		05/20/2022	N	n/a	509	n/a	n/a	**1220**	**4070**	6.94
		10/04/2022	N	0.272	405	**1010**	0.270	**1170**	**4200**	6.87
		11/22/2022	N	n/a	n/a	n/a	n/a	**1220**	**3760**	6.79
		04/03/2023	N	0.284	460	**1080**	0.250	**1390**	**4460**	6.84
		05/01/2023	N	n/a	533	n/a	n/a	**1670**	**4390**	6.86
		10/09/2023	N	0.284	502	**993**	0.280	**1370**	**1450**	6.86
		11/01/2023	N	n/a	322	n/a	n/a	**1540**	n/a	6.60
		03/01/2024	N	0.308	616	**1050**	0.300	**1500**	**4020**	6.96
		03/29/2024	N	n/a	500	n/a	n/a	**1430**	**3940**	6.63
		08/28/2024	N	0.256	583	**2000**	0.230	**1620**	**2800**	6.65
		09/26/2024	N	n/a	503	**1060**	n/a	**1640**	n/a	6.53
		04/01/2022	FD	0.269	131	**323**	0.47	206	**1280**	n/a
		04/01/2022	N	0.263	138	**320**	0.41	197	**1170**	7.00
		10/04/2022	FD	0.359	148	**315**	0.350	223	**1290**	n/a
		10/04/2022	N	0.340	145	**309**	0.360	217	**1340**	7.03
		04/03/2023	N	0.312	138	**269**	0.370	178	**1060**	6.85
		04/03/2023	FD	0.264	128	**267**	0.360	173	**944**	n/a
	MW-44	05/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	6.97
		10/09/2023	FD	0.226	98.0	205	0.420	93.7	**748**	n/a
		10/09/2023	N	0.217	103	204	0.410	93.1	**808**	7.20
		03/01/2024	N	0.219	120	227	0.470 J	125	**912**	6.64
		03/01/2024	FD	0.242	104	228	0.300 J	127	**1070**	n/a
		08/28/2024	FD	0.198	101	209	0.360	83.0	**828**	n/a
		08/28/2024	N	0.174	97.4	226	0.380	97.2	**732**	7.08
		04/01/2022	N	0.169	105	165	0.36	90.7	**792**	7.27
		10/04/2022	N	0.190	118	162	0.320	90.9	**830**	7.01
		04/03/2023	N	0.178	98.6	166	0.300	97.1	**736**	6.65
	MW-46R	05/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	7.15
		10/09/2023	N	0.167	104	161	0.320	99.2	**714**	7.04
		03/01/2024	N	0.185	120	167	0.370	101	**804**	**6.13**
		03/29/2024	N	n/a	n/a	n/a	n/a	n/a	n/a	**6.48**
		08/28/2024	N	0.154	108	187	0.280	98.4	**688**	7.03
		04/01/2022	N	0.295	138	**404**	0.47	126	**1240**	7.11
		10/04/2022	N	0.318	147	**386**	0.440	119	**1330**	7.04
		04/03/2023	N	0.293	143	**411**	0.380	141	**1300**	7.09
		10/09/2023	N	0.292	133	**391**	0.460	150	**976**	6.79
	MW-50	11/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	6.90
		03/01/2024	N	0.254	134	**389**	0.510	139	**1230**	6.86
		03/29/2024	N	n/a	n/a	n/a	n/a	n/a	n/a	6.61
		08/28/2024	N	0.234	135	**440**	0.410	128	**1070**	6.82
		09/26/2024	N	n/a	n/a	n/a	n/a	n/a	n/a	6.83
		04/01/2022	N	0.344	240	**608**	0.53	**420**	**1930**	7.02
		10/04/2022	N	0.386	192	**565**	0.530	**395**	**2190**	6.96

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2022-2024
WA Parish Electric Generating Station - Thompsons, Texas

			Analyte Group	NRG App III						
			Analyte	Boron	Calcium	Chloride	Fluoride	Sulfate	Total Dissolved Solids	pH, Field
			Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su
			Lab Method	SW6020A		E300	A4500-F C-11	E300	M2540C	NA
Well Description	Well ID	Sample Date	Duplicate							
Downgradient	MW-52	04/03/2023	N	0.345	228	**567**	0.470	**429**	**1350**	7.02
		10/09/2023	N	0.332	217	**513**	0.550	**401**	**1420**	6.72
		11/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	6.74
		03/01/2024	N	0.292	202	**533**	0.380	**438**	**2030**	6.94
		08/28/2024	N	0.322	251	**553**	0.500	**449**	**1080**	6.72
		09/26/2024	N	n/a	n/a	n/a	n/a	n/a	n/a	6.79
	MW-54	04/01/2022	N	0.271	93.5	**257**	0.51	74.2	**868**	7.17
		10/04/2022	N	0.269	93.8	242	0.480	71.7	**920**	7.07
		04/03/2023	N	0.278	106	**280**	0.400	81.3	**756**	7.07
		10/09/2023	N	0.251	93.5	**260**	0.480	90.5	**772**	6.82
		11/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	6.99
		03/01/2024	N	0.274	116	**262**	0.340	93.3	**936**	7.16
		08/28/2024	N	0.240	106	**282**	0.400	81.3	**884**	7.02
	MW-55R	04/01/2022	N	0.456	115	**325**	0.73	99.1	**1060**	7.08
		10/04/2022	N	0.472	116	**300**	0.720	93.3	**1100**	7.06
		04/03/2023	N	0.406	112	**336**	0.610	105	**948**	7.07
		10/09/2023	N	0.417	105	**307**	0.730	98.7	**808**	6.81
		11/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	6.98
		03/01/2024	N	0.507	122	**316**	0.530	102	**1160**	6.94
		08/28/2024	N	0.398	113	**338**	0.680	86.7	**912**	6.82
		09/26/2024	N	n/a	n/a	n/a	n/a	n/a	n/a	6.92
	MW-58	02/09/2022	N	0.313	n/a	n/a	n/a	n/a	n/a	7.11
		02/10/2022	N	n/a	n/a	**353**	n/a	n/a	n/a	7.04
		04/01/2022	N	0.309	114	**354**	0.47	115	**1180**	7.23
		10/04/2022	N	0.530	132	**314**	0.400	172	**1200**	7.01
		04/03/2023	N	0.373	114	**316**	0.370	97.6	**1000**	6.97
		10/09/2023	N	0.935 [JL]	122	**259**	0.440	**272**	**1160**	7.12
		11/01/2023	N	0.421	n/a	n/a	n/a	n/a	n/a	7.01
		03/01/2024	N	0.336	107	**281**	0.330	94.4	**1040**	6.94
		08/28/2024	N	0.301	99.8	**294**	0.390	70.9	**828**	7.21
	MW-65	04/01/2022	N	0.348	239	**308**	0.37	**635**	**1940**	6.98
		10/04/2022	N	0.373	207	**300**	0.350	**556**	**1850**	6.98
		04/03/2023	N	0.320	199	**318**	0.280	**614**	**2090**	6.98
		10/09/2023	N	0.306	196	**314**	0.350	**604**	**1470**	6.69
		11/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	6.84
		03/01/2024	N	0.348	216	**284**	0.250	**535**	**1870**	6.83
		03/29/2024	N	n/a	n/a	n/a	n/a	n/a	n/a	6.94
		08/28/2024	N	0.299	267	**371**	0.240	**677**	**1660**	6.71
		09/26/2024	N	n/a	n/a	n/a	n/a	**775**	n/a	6.76
FGD Emergency Pond										
Upgradient	MW-36	04/01/2022	N	0.0811	250	**325**	0.42	**410**	**1590**	6.85
		04/01/2022	FD	0.0956	226	**327**	0.44	**414**	**1600**	n/a
		10/04/2022	FD	0.0779 [J]	212	**314**	0.330	**402**	**1540**	n/a
		10/04/2022	N	0.0858 [J]	237	**313**	0.360	**400**	**1560**	6.81
		04/03/2023	N	0.0712	231	**306**	0.360	**422**	**1480**	6.88
		04/03/2023	FD	0.0772	224	**312**	0.320	**433**	**1770**	n/a
		10/09/2023	N	0.385	234	244	0.280	**954**	**1750**	6.87
		10/09/2023	FD	0.343	219	245	0.230	**964**	**1710**	n/a
		11/01/2023	FD	0.0682	232	**306**	0.390	**476**	**964**	n/a
		11/01/2023	N	0.0672	218	**300**	0.360	**468**	**1200**	6.68
		03/01/2024	N	0.0686 U	240	**296**	0.280	**425**	**1470**	6.83
		03/01/2024	FD	0.0666 U	218	**294**	0.280	**431**	**1410**	n/a
		08/28/2024	N	0.0482	252	**318**	0.340	**441**	**1220**	6.74
		08/28/2024	FD	0.0818	205	**311**	0.320	**436**	**1200**	n/a
	MW-60	04/01/2022	N	0.117	208	**314**	0.15 [JH]	242	**1400**	6.83
		10/04/2022	N	0.111	252	**300**	0.120	**254**	**1380**	6.52
		04/03/2023	N	0.0891	217	**312**	0.120	**290**	**1360**	6.64
		10/09/2023	N	0.0511	205	**288**	0.150	**298**	**1070**	6.65
		03/01/2024	N	0.104	212	**294**	0.130	**296**	**1330**	6.56
		08/28/2024	N	0.0875	218	**310**	0.100	**327**	**1260**	6.65
		02/09/2022	N	n/a	n/a	n/a	n/a	n/a	**2040**	6.83
		04/01/2022	N	0.367	234	**321**	0.32	**1030**	**1880**	7.03
		05/20/2022	N	0.366	n/a	n/a	n/a	**716**	**1840**	6.61
		10/04/2022	N	0.363	173	**260**	0.230	**717**	**1930**	6.72
		04/03/2023	N	0.383	239	**256**	0.210	**916**	**2090**	6.72

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WA Parish Electric Generating Station - Thompsons, Texas

			Analyte Group	**NRG App III**						
			Analyte	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**Sulfate**	**Total Dissolved Solids**	**pH, Field**
			Unit	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**su**
			Lab Method	**SW6020A**		**E300**	**A4500-F C-11**	**E300**	**M2540C**	**NA**
Well Description	**Well ID**	**Sample Date**	**Duplicate**							
Downgradient	MW-37	05/01/2023	N	0.389	n/a	n/a	n/a	**1110**	**1930**	6.69
		10/09/2023	N	0.0720	223	**278**	0.400	**413**	**932**	6.85
		11/01/2023	N	0.401	252	**273**	0.210	**1130**	**1720**	6.65
		03/01/2024	N	0.479	280	**252**	0.190	**1140**	**2330**	**5.61**
		03/29/2024	N	0.404	n/a	n/a	n/a	**1140**	**1980**	6.60
		08/28/2024	N	0.458	289	243	0.180	**1330**	**2120**	**6.18**
		09/26/2024	N	0.482	n/a	n/a	n/a	**1400**	**1710**	6.76
	MW-38R	04/01/2022	N	0.421	237	**286**	0.21 [JH]	**572**	**1720**	7.15
		05/20/2022	N	0.412	n/a	n/a	n/a	**531**	n/a	6.82
		10/04/2022	N	0.440	235	242	0.200	**646**	**1740**	6.71
		04/03/2023	N	0.435	256	245	0.180	**734**	**1690**	6.54
		05/01/2023	N	0.425	n/a	n/a	n/a	**860**	n/a	6.80
		10/09/2023	N	0.416	238	243	0.230	**650**	**1240**	**6.49**
		11/01/2023	N	0.406	n/a	n/a	n/a	**738**	n/a	6.65
		03/01/2024	N	0.378	237	**264**	0.180	**705**	**2000**	**6.44**
		03/29/2024	N	0.344	n/a	n/a	n/a	**657**	**1460**	6.57
		08/28/2024	N	0.394	223	**261**	0.160	**802**	**1580**	6.63
		09/26/2024	N	0.390	n/a	n/a	n/a	**776**	n/a	6.75
	MW-61	04/01/2022	N	1.29	207	130	0.33	**916**	**1880**	6.84
		05/20/2022	N	1.32	n/a	n/a	n/a	**958**	**1850**	**6.25**
		10/04/2022	N	1.58	289	123	0.250	**987**	**2010**	6.87
		04/03/2023	N	1.10 [J]	239	122	0.230	**1100**	**2060**	6.86
		05/01/2023	N	1.24	n/a	n/a	n/a	**1330**	**1890**	6.92
		10/09/2023	N	0.987	227	119	0.280	**1070**	**1720**	6.93
		11/01/2023	N	1.01	n/a	n/a	n/a	**1190**	n/a	6.79
		03/01/2024	N	1.28	279	131	0.210	**1160**	**2090**	6.65
		03/29/2024	N	5.24	n/a	n/a	n/a	**1140**	**1730**	6.61
		08/28/2024	N	1.22	280	137	0.200	**1310**	**1900**	6.71
		09/26/2024	N	1.13	n/a	n/a	n/a	**1360**	**1940**	6.83

Notes
N: Normal Sample
FD: Field Duplicate
NA: Not Applicable
J: Concentration is an estimated value. Result is less than the method quantitation limit but ≥ to the method detection limit.
U: Analyte was not detected at or above the method detection limit.
JL: Estimated data - bias in sample, likely to be low.; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
JH: Estimated data - bias in sample, likely to be high; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
NU: Resampled for analyte. Data not used.
mg/L: Milligrams per liter
su: Standard units
n/a: Not analyzed

Appendix A
Detection Monitoring Data (March 2024)

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

March 11, 2024

Lori Burris
TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079

Work Order: **HS24030094**

Laboratory Results for: **WA Parish CCR Program**

Dear Lori Burris,

ALS Environmental received 28 sample(s) on Mar 01, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program	
WorkOrder:	**HS24030094**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:
a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program	
WorkOrder:	**HS24030094**	

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] ______________ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Andy C. Neir

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 03/11/2024
Project Name: WA Parish CCR Program	Laboratory Job Number: HS24030094
Reviewer Name: Andy Neir	Prep Batch Number(s): 208402,208403,R460548,R460555,R460556,R460567,R460794

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				2
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);NA = Not Applicable; NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 03/11/2024				
Project Name: WA Parish CCR Program			Laboratory Job Number: HS24030094				
Reviewer Name: Andy Neir			Prep Batch Number(s): 208402,208403,R460548,R460555,R460556,R460567,R460794				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			3
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			4
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable; NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 03/11/2024
Project Name: WA Parish CCR Program	Laboratory Job Number: HS24030094
Reviewer Name: Andy Neir	Prep Batch Number(s): 208402,208403,R460548,R460555,R460556,R460567,R460794

ER#[5]	Description
1	Batch 208402, Metals Method SW6020, sample MW-63, MS and or MSD recovered outside the control limit for Calcium, however, the result in the parent sample is 4x greater than the spike amount. Batch 208403, Metals Method SW6020, sample MW-58, MS and or MSD recovered outside the control limit for Calcium, however, the result in the parent sample is 4x greater than the spike amount Batch R460555, Anions Method E300, sample MW-63, MS and or MSD recovered outside the control limit for Sulfate, however the result in the parent sample is 4x greater than the spike amount. Batch R460555, Anions Method E300, sample HS24030086-22, MS and MSD were performed on unrelated sample. Batch R460556, Anions Method E300, sample MW-37, MS and or MSD recovered outside the control limit for Sulfate, however, the result in the parent sample is 4x greater than the spike amount
2	The analysis for Fluoride Method 4500 was subcontracted to ALS Environmental in Holland, Report and Laboratory Review Checklist are attached to the final report
3	See Run Log and CCB Exceptions Report.
4	Batch 208403, Metals Method SW6020, sample MW-58, PDS is greater than the spike amount for Calcium, however the result in the parent sample is 4x greater than the spike amount.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 05-Mar-2024 End Date: 05-Mar-2024

Run ID:ICS-Integrion_460555
Instrument:ICS-Integrion
Method:E300

Sample No.	D/F	Time	FileID	Analytes
CCV 1	1	05-Mar-2024 09:57	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 1	1	05-Mar-2024 10:03	LIMS Export_06_03_2024 08_11.txt	CL SO4
MBLK	1	05-Mar-2024 10:50	LIMS Export_06_03_2024 08_11.txt	CL SO4
LCS	1	05-Mar-2024 10:56	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 2	1	05-Mar-2024 11:56	LIMS Export_06_03_2024 08_11.txt	CL SO4
ZZZZZZMS	10	05-Mar-2024 12:14	LIMS Export_06_03_2024 08_11.txt	CL SO4
ZZZZZZMSD	10	05-Mar-2024 12:20	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCV 2	1	05-Mar-2024 13:08	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 3	1	05-Mar-2024 13:20	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-39R	10	05-Mar-2024 13:32	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-40	10	05-Mar-2024 13:43	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-41	1	05-Mar-2024 13:49	LIMS Export_06_03_2024 08_11.txt	SO4
MW-41	10	05-Mar-2024 13:55	LIMS Export_06_03_2024 08_11.txt	CL
MW-62	10	05-Mar-2024 14:07	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-64	1	05-Mar-2024 14:13	LIMS Export_06_03_2024 08_11.txt	SO4
MW-64	10	05-Mar-2024 14:19	LIMS Export_06_03_2024 08_11.txt	CL
CCB 4	1	05-Mar-2024 14:37	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-63	2	05-Mar-2024 15:01	LIMS Export_06_03_2024 08_11.txt	CL
MW-63MS	2	05-Mar-2024 15:07	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-63MSD	2	05-Mar-2024 15:13	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-23R	20	05-Mar-2024 15:19	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-28D	5	05-Mar-2024 15:31	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-63	10	05-Mar-2024 15:49	LIMS Export_06_03_2024 08_11.txt	SO4
CCV 3	1	05-Mar-2024 16:01	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 5	1	05-Mar-2024 16:13	LIMS Export_06_03_2024 08_11.txt	CL SO4

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 05-Mar-2024 End Date: 05-Mar-2024

Run ID:ICS-Integrion_460556
Instrument:ICS-Integrion
Method:E300

Sample No.	D/F	Time	FileID	Analytes
CCV 1	1	05-Mar-2024 16:01	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 1	1	05-Mar-2024 16:13	LIMS Export_06_03_2024 08_11.txt	CL SO4
MBLK	1	05-Mar-2024 16:25	LIMS Export_06_03_2024 08_11.txt	CL SO4
LCS	1	05-Mar-2024 16:30	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-42	10	05-Mar-2024 16:36	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-43	1	05-Mar-2024 16:42	LIMS Export_06_03_2024 08_11.txt	SO4
MW-43	10	05-Mar-2024 16:48	LIMS Export_06_03_2024 08_11.txt	CL
MW-44	10	05-Mar-2024 17:00	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-46R	10	05-Mar-2024 17:12	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 2	1	05-Mar-2024 17:30	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-47	1	05-Mar-2024 17:42	LIMS Export_06_03_2024 08_11.txt	SO4
MW-47	10	05-Mar-2024 17:48	LIMS Export_06_03_2024 08_11.txt	CL
MW-48	1	05-Mar-2024 17:54	LIMS Export_06_03_2024 08_11.txt	SO4
MW-48	10	05-Mar-2024 18:00	LIMS Export_06_03_2024 08_11.txt	CL
MW-50	10	05-Mar-2024 18:12	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-52	20	05-Mar-2024 18:18	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-54	1	05-Mar-2024 18:24	LIMS Export_06_03_2024 08_11.txt	SO4
MW-54	10	05-Mar-2024 18:30	LIMS Export_06_03_2024 08_11.txt	CL
MW-65	10	05-Mar-2024 18:36	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCV 2	1	05-Mar-2024 18:54	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 3	1	05-Mar-2024 19:05	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-55R	10	05-Mar-2024 19:17	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-58	10	05-Mar-2024 19:29	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-58MS	10	05-Mar-2024 19:35	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-58MSD	10	05-Mar-2024 19:41	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-36	10	05-Mar-2024 19:53	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-38R	20	05-Mar-2024 19:59	LIMS Export_06_03_2024 08_11.txt	CL SO4
Field Blank-01	1	05-Mar-2024 20:05	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 4	1	05-Mar-2024 20:29	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-37	20	05-Mar-2024 20:41	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-37MS	20	05-Mar-2024 20:47	LIMS Export_06_03_2024 08_11.txt	CL SO4

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 05-Mar-2024 End Date: 05-Mar-2024

Run ID:ICS-Integrion_460556
Instrument:ICS-Integrion
Method:E300

Sample No.	D/F	Time	FileID	Analytes
MW-37MSD	20	05-Mar-2024 20:53	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-60	10	05-Mar-2024 21:05	LIMS Export_06_03_2024 08_11.txt	CL SO4
MW-61	20	05-Mar-2024 21:11	LIMS Export_06_03_2024 08_11.txt	CL SO4
Field Duplicate-1	20	05-Mar-2024 21:17	LIMS Export_06_03_2024 08_11.txt	CL SO4
Field Duplicate-2	10	05-Mar-2024 21:28	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCV 3	1	05-Mar-2024 21:40	LIMS Export_06_03_2024 08_11.txt	CL SO4
CCB 5	1	05-Mar-2024 21:52	LIMS Export_06_03_2024 08_11.txt	CL SO4

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

Run ID:ICS-Integrion_460555
Instrument:ICS-Integrion
Method:E300

CCB 4	Date: 05-Mar-2024 14:37	Seq: 7870159	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Chloride	242	200	500

CCB 5	Date: 05-Mar-2024 16:13	Seq: 7870170	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Sulfate	202.2	200	500

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

Run ID:ICS-Integrion_460556
Instrument:ICS-Integrion
Method:E300

CCB 1 Date: 05-Mar-2024 16:13 Seq: 7870172 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Sulfate	202.2	200	500

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 09-Mar-2024 End Date: 09-Mar-2024

Run ID:ICPMS06_460915
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Mar-2024 10:56	019_ICV.d	B CA
LLICV2	1	09-Mar-2024 11:00	021LCV2.d	B CA
LLICV5	1	09-Mar-2024 11:02	022LCV5.d	B CA
ICB	1	09-Mar-2024 11:04	023_ICB.d	B CA
ICSA	1	09-Mar-2024 11:08	025ICSA.d	B CA
ICSAB	1	09-Mar-2024 11:10	026ICSB.d	B CA
CCV 1	1	09-Mar-2024 11:20	029_CCV.d	B CA
CCB 1	1	09-Mar-2024 11:22	030_CCB.d	B CA
MW-63	10	09-Mar-2024 11:28	033SMPL.d	B CA
MW-63SD	50	09-Mar-2024 11:30	034SMPL.d	B CA
MW-63PDS	10	09-Mar-2024 11:32	035SMPL.d	B CA
MW-39R	20	09-Mar-2024 11:34	036SMPL.d	CA
MW-40	20	09-Mar-2024 11:35	037SMPL.d	CA
MW-62	20	09-Mar-2024 11:37	038SMPL.d	CA
MW-64	20	09-Mar-2024 11:39	039SMPL.d	CA
MW-23R	20	09-Mar-2024 11:41	040SMPL.d	CA
CCV 2	1	09-Mar-2024 11:43	041_CCV.d	B CA
CCB 2	1	09-Mar-2024 11:45	042_CCB.d	B CA
MW-52	20	09-Mar-2024 11:47	043SMPL.d	CA
MW-65	20	09-Mar-2024 11:49	044SMPL.d	CA
MW-36	20	09-Mar-2024 11:51	045SMPL.d	CA
CCB 3	1	09-Mar-2024 12:06	053_CCB.d	B CA
CCV 3	1	09-Mar-2024 12:08	054_CCV.d	B CA
CCV 4	1	09-Mar-2024 12:39	065_CCV.d	B CA
CCB 4	1	09-Mar-2024 12:41	066_CCB.d	B CA
CCV 5	1	09-Mar-2024 13:20	077_CCV.d	B CA
CCB 5	1	09-Mar-2024 13:21	078_CCB.d	B CA
CCV 6	1	09-Mar-2024 13:45	089_CCV.d	B CA
CCB 6	1	09-Mar-2024 13:47	090_CCB.d	B CA
CCV 7	1	09-Mar-2024 14:16	101_CCV.d	B CA
CCB 7	1	09-Mar-2024 14:18	102_CCB.d	B CA
CCV 8	1	09-Mar-2024 14:41	113_CCV.d	B CA
CCB 8	1	09-Mar-2024 14:42	114_CCB.d	B CA
CCV 9	1	09-Mar-2024 15:07	125_CCV.d	B CA
CCB 9	1	09-Mar-2024 15:08	126_CCB.d	B CA
CCV 10	1	09-Mar-2024 15:30	137_CCV.d	B CA
CCB 10	1	09-Mar-2024 15:31	138_CCB.d	B CA
CCV 11	1	09-Mar-2024 15:55	149_CCV.d	B CA
CCB 11	1	09-Mar-2024 15:57	150_CCB.d	B CA
CCV 12	1	09-Mar-2024 16:19	161_CCV.d	B CA
CCB 12	1	09-Mar-2024 16:21	162_CCB.d	B CA
CCV 13	1	09-Mar-2024 16:31	167_CCV.d	B CA
CCB 13	1	09-Mar-2024 16:33	168_CCB.d	B CA
CCV 14	1	09-Mar-2024 16:39	170_CCV.d	B CA
CCB 14	1	09-Mar-2024 16:40	171_CCB.d	B CA
LLCCV2	1	09-Mar-2024 16:42	172LCV2.d	B CA
LLCCV5	1	09-Mar-2024 16:44	173LCV5.d	B CA
ICSA	1	09-Mar-2024 16:46	174ICSA.d	B CA
ICSAB	1	09-Mar-2024 16:48	175ICSB.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 08-Mar-2024 End Date: 09-Mar-2024

Run ID:ICPMS07_460886
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	08-Mar-2024 17:28	038_ICV.d	B CA
LLICV2	1	08-Mar-2024 17:34	040LCV2.d	B CA
LLICV5	1	08-Mar-2024 17:37	041LCV5.d	B CA
ICB	1	08-Mar-2024 17:41	043_ICB.d	B CA
ICSA	1	08-Mar-2024 17:44	044ICSA.d	B CA
ICSAB	1	08-Mar-2024 17:46	045ICSB.d	B CA
CCV 1	1	08-Mar-2024 17:59	049_CCV.d	B CA
CCB 1	1	08-Mar-2024 18:02	050_CCB.d	B CA
CCV 2	1	08-Mar-2024 18:28	061_CCV.d	B CA
CCB 2	1	08-Mar-2024 18:30	062_CCB.d	B CA
CCV 3	1	08-Mar-2024 18:57	073_CCV.d	B CA
CCB 3	1	08-Mar-2024 18:59	074_CCB.d	B CA
CCV 4	1	08-Mar-2024 20:21	077_CCV.d	B CA
CCB 4	1	08-Mar-2024 20:24	078_CCB.d	B CA
CCV 5	1	08-Mar-2024 20:41	083_CCV.d	B CA
CCB 5	1	08-Mar-2024 20:44	084_CCB.d	B CA
ICCV 6	1	08-Mar-2024 21:11	096_ICV.d	B CA
LLCCV5	1	08-Mar-2024 21:13	097LCV5.d	B CA
LLCCV2	1	08-Mar-2024 21:16	098LCV2.d	B CA
ICCB 6	1	08-Mar-2024 21:18	099_ICB.d	B CA
CCV 7	1	08-Mar-2024 21:23	101_CCV.d	B CA
CCB 7	1	08-Mar-2024 21:25	102_CCB.d	B CA
CCV 8	1	08-Mar-2024 21:32	105_CCV.d	B CA
CCB 8	1	08-Mar-2024 21:34	106_CCB.d	B CA
CCV 9	1	08-Mar-2024 21:51	113_CCV.d	B CA
CCB 9	1	08-Mar-2024 21:53	114_CCB.d	B CA
CCV 10	1	08-Mar-2024 22:12	122_CCV.d	B CA
CCB 10	1	08-Mar-2024 22:14	123_CCB.d	B CA
CCV 11	1	08-Mar-2024 22:38	130_CCV.d	B CA
CCB 11	1	08-Mar-2024 22:40	131_CCB.d	B CA
CCV 12	1	08-Mar-2024 22:59	139_CCV.d	B CA
CCB 12	1	08-Mar-2024 23:01	140_CCB.d	B CA
MBLK-208403	1	08-Mar-2024 23:04	141SMPL.d	B CA
LCS-208403	1	08-Mar-2024 23:06	142SMPL.d	B CA
CCV 13	1	08-Mar-2024 23:08	143_CCV.d	B CA
CCB 13	1	08-Mar-2024 23:11	144_CCB.d	B CA
MW-58	1	08-Mar-2024 23:13	145SMPL.d	B CA
MW-58SD	5	08-Mar-2024 23:15	146SMPL.d	B CA
MW-58MS	1	08-Mar-2024 23:18	147SMPL.d	B CA
MW-58MSD	1	08-Mar-2024 23:20	148SMPL.d	B CA
MW-58PDS	1	08-Mar-2024 23:22	149SMPL.d	B CA
CCV 14	1	08-Mar-2024 23:27	151_CCV.d	B CA
CCB 14	1	08-Mar-2024 23:29	152_CCB.d	B CA
CCV 15	1	08-Mar-2024 23:56	162_CCV.d	B CA
CCB 15	1	08-Mar-2024 23:58	163_CCB.d	B CA
CCV 16	1	09-Mar-2024 00:21	173_CCV.d	B CA
CCB 16	1	09-Mar-2024 00:24	174_CCB.d	B CA
MW-38R	1	09-Mar-2024 00:28	176SMPL.d	B
Field Blank-01	1	09-Mar-2024 00:35	179SMPL.d	CA
Field Duplicate-2	1	09-Mar-2024 00:40	181SMPL.d	CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 08-Mar-2024 End Date: 09-Mar-2024

Run ID:ICPMS07_460886
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCV 17	1	09-Mar-2024 00:47	184_CCV.d	B CA
CCB 17	1	09-Mar-2024 00:50	185_CCB.d	B CA
LLCCV2	1	09-Mar-2024 00:54	187LCV2.d	B CA
LLCCV5	1	09-Mar-2024 00:57	188LCV5.d	B CA
ICSA	1	09-Mar-2024 00:59	189ICSA.d	B CA
ICSAB	1	09-Mar-2024 01:01	190ICSB.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 09-Mar-2024 End Date: 09-Mar-2024

Run ID:ICPMS07_460913
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Mar-2024 09:56	018_ICV.d	B CA
LLICV2	1	09-Mar-2024 10:01	020LCV2.d	B CA
LLICV5	1	09-Mar-2024 10:03	021LCV5.d	B CA
ICB	1	09-Mar-2024 10:08	023_ICB.d	B CA
ICSA	1	09-Mar-2024 10:12	024ICSA.d	B CA
ICSAB	1	09-Mar-2024 10:15	025ICSB.d	B CA
CCV 1	1	09-Mar-2024 10:38	031_CCV.d	B CA
CCB 1	1	09-Mar-2024 10:41	032_CCB.d	B CA
CCV 2	1	09-Mar-2024 11:06	043_CCV.d	B CA
CCB 2	1	09-Mar-2024 11:09	044_CCB.d	B CA
Field Blank-01	1	09-Mar-2024 11:16	047SMPL.d	B
Field Duplicate-2	1	09-Mar-2024 11:18	048SMPL.d	B
Field Duplicate-1	10	09-Mar-2024 11:20	049SMPL.d	CA
MW-60	10	09-Mar-2024 11:23	050SMPL.d	CA
MW-37	20	09-Mar-2024 11:25	051SMPL.d	B CA
MW-38R	20	09-Mar-2024 11:28	052SMPL.d	CA
MW-61	20	09-Mar-2024 11:30	053SMPL.d	B CA
CCV 3	1	09-Mar-2024 11:35	055_CCV.d	B CA
CCB 3	1	09-Mar-2024 11:37	056_CCB.d	B CA
CCV 4	1	09-Mar-2024 12:31	079_CCV.d	B CA
CCB 4	1	09-Mar-2024 12:33	080_CCB.d	B CA
Field Duplicate-1	1	09-Mar-2024 12:52	088SMPL.d	B
CCV 5	1	09-Mar-2024 12:59	091_CCV.d	B CA
CCB 5	1	09-Mar-2024 13:01	092_CCB.d	B CA
CCV 6	1	09-Mar-2024 13:35	105_CCV.d	B CA
CCB 6	1	09-Mar-2024 13:37	106_CCB.d	B CA
CCV 7	1	09-Mar-2024 14:09	117_CCV.d	B CA
CCB 7	1	09-Mar-2024 14:11	118_CCB.d	B CA
MW-60	5	09-Mar-2024 14:13	119SMPL.d	B
CCV 8	1	09-Mar-2024 14:25	124_CCV.d	B CA
CCB 8	1	09-Mar-2024 14:29	125_CCB.d	B CA
CCV 9	1	09-Mar-2024 14:32	126_CCV.d	B CA
CCV 10	1	09-Mar-2024 14:58	137_CCV.d	B CA
CCB 9	1	09-Mar-2024 15:00	138_CCB.d	B CA
CCV 11	1	09-Mar-2024 15:26	149_CCV.d	B CA
CCB 10	1	09-Mar-2024 15:28	150_CCB.d	B CA
CCV 12	1	09-Mar-2024 15:54	161_CCV.d	B CA
CCB 11	1	09-Mar-2024 15:56	162_CCB.d	B CA
CCV 13	1	09-Mar-2024 16:22	173_CCV.d	B CA
CCB 12	1	09-Mar-2024 16:24	174_CCB.d	B CA
CCV 14	1	09-Mar-2024 16:50	185_CCV.d	B CA
CCB 13	1	09-Mar-2024 16:52	186_CCB.d	B CA
CCV 15	1	09-Mar-2024 17:18	197_CCV.d	B CA
CCB 14	1	09-Mar-2024 17:20	198_CCB.d	B CA
CCV 16	1	09-Mar-2024 17:46	209_CCV.d	B CA
CCB 15	1	09-Mar-2024 17:49	210_CCB.d	B CA
CCV 17	1	09-Mar-2024 18:14	221_CCV.d	B CA
CCB 16	1	09-Mar-2024 18:17	222_CCB.d	B CA
CCV 18	1	09-Mar-2024 18:42	233_CCV.d	B CA
CCB 17	1	09-Mar-2024 18:45	234_CCB.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094
Start Date: 09-Mar-2024 End Date: 09-Mar-2024

Run ID:ICPMS07_460913
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCV 19	1	09-Mar-2024 18:50	236_CCV.d	B CA
CCB 18	1	09-Mar-2024 18:52	237_CCB.d	B CA
LLCCV2	1	09-Mar-2024 18:57	239LCV2.d	B CA
LLCCV5	1	09-Mar-2024 18:59	240LCV5.d	B CA
ICSA	1	09-Mar-2024 19:01	241ICSA.d	B CA
ICSAB	1	09-Mar-2024 19:04	242ICSB.d	B CA

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

Run ID:ICPMS06_460915
Instrument:ICPMS06
Method:SW6020A

CCB 1	Date: 09-Mar-2024 11:22	Seq: 7878207	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Calcium		119.6	34	500

CCB 2	Date: 09-Mar-2024 11:45	Seq: 7878219	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Calcium		116.8	34	500

CCB 3	Date: 09-Mar-2024 12:06	Seq: 7878230	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Calcium		113.4	34	500

CCB 4	Date: 09-Mar-2024 12:41	Seq: 7878286	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Calcium		124.4	34	500

CCB 5	Date: 09-Mar-2024 13:21	Seq: 7878352	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Calcium		39.66	34	500

CCB 7	Date: 09-Mar-2024 14:18	Seq: 7878476	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Calcium		35.79	34	500

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

Run ID:ICPMS07_460886
Instrument:ICPMS07
Method:SW6020A

CCB 15 Date: 08-Mar-2024 23:58 Seq: 7877397 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	22.41	11	20

CCB 16 Date: 09-Mar-2024 00:24 Seq: 7877409 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	32.85	11	20

CCB 17 Date: 09-Mar-2024 00:50 Seq: 7877420 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	12.7	11	20

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

Run ID:ICPMS07_460913
Instrument:ICPMS07
Method:SW6020A

Sample	Date	Seq	D/F	Units	Analyte	Result	MDL	Report Limit
ICB	09-Mar-2024 10:08	7878099	1	ug/L	Calcium	-37.42	34	500
CCB 1	09-Mar-2024 10:41	7878159	1	ug/L	Calcium	-37.91	34	500
CCB 2	09-Mar-2024 11:09	7878167	1	ug/L	Calcium	-39.27	34	500
CCB 3	09-Mar-2024 11:37	7878179	1	ug/L	Calcium	-40.57	34	500
CCB 4	09-Mar-2024 12:33	7878308	1	ug/L	Calcium	-48.3	34	500
CCB 5	09-Mar-2024 13:01	7878305	1	ug/L	Calcium	-48.47	34	500
CCB 6	09-Mar-2024 13:37	7878323	1	ug/L	Boron	13.99	11	20
					Calcium	-44.76	34	500
CCB 7	09-Mar-2024 14:11	7878380	1	ug/L	Calcium	-46.82	34	500
CCB 8	09-Mar-2024 14:29	7878465	1	ug/L	Calcium	-47.43	34	500
CCB 9	09-Mar-2024 15:00	7878500	1	ug/L	Calcium	-49.82	34	500
CCB 10	09-Mar-2024 15:28	7878539	1	ug/L	Calcium	-52.11	34	500
CCB 11	09-Mar-2024 15:56	7878571	1	ug/L	Calcium	-50.97	34	500
CCB 12	09-Mar-2024 16:24	7878594	1	ug/L	Calcium	-51.56	34	500

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

Run ID:ICPMS07_460913
Instrument:ICPMS07
Method:SW6020A

CCB 13	Date: 09-Mar-2024 16:52	Seq: 7878811	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	-52.69	34	500

CCB 14	Date: 09-Mar-2024 17:20	Seq: 7878823	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	-50.97	34	500

CCB 15	Date: 09-Mar-2024 17:49	Seq: 7878835	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	-51.22	34	500

CCB 16	Date: 09-Mar-2024 18:17	Seq: 7878847	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	-53.01	34	500

CCB 17	Date: 09-Mar-2024 18:45	Seq: 7878855	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	-52.07	34	500

CCB 18	Date: 09-Mar-2024 18:52	Seq: 7878858	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	-54.26	34	500

Client: TRC
Project: WA Parish CCR Program
Work Order: HS24030094

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24030094-01	MW-39R	Water		01-Mar-2024 08:50	01-Mar-2024 14:55	☐
HS24030094-02	MW-40	Water		01-Mar-2024 11:30	01-Mar-2024 14:55	☐
HS24030094-03	MW-41	Water		01-Mar-2024 09:25	01-Mar-2024 14:55	☐
HS24030094-04	MW-62	Water		01-Mar-2024 08:15	01-Mar-2024 14:55	☐
HS24030094-05	MW-63	Water		01-Mar-2024 10:00	01-Mar-2024 14:55	☐
HS24030094-06	MW-64	Water		01-Mar-2024 10:50	01-Mar-2024 14:55	☐
HS24030094-07	MW-23R	Water		01-Mar-2024 11:45	01-Mar-2024 14:55	☐
HS24030094-08	MW-28D	Water		01-Mar-2024 12:10	01-Mar-2024 14:55	☐
HS24030094-09	MW-42	Water		01-Mar-2024 10:55	01-Mar-2024 14:55	☐
HS24030094-10	MW-43	Water		01-Mar-2024 12:25	01-Mar-2024 14:55	☐
HS24030094-11	MW-44	Water		01-Mar-2024 09:15	01-Mar-2024 14:55	☐
HS24030094-12	MW-46R	Water		01-Mar-2024 08:25	01-Mar-2024 14:55	☐
HS24030094-13	MW-47	Water		01-Mar-2024 10:45	01-Mar-2024 14:55	☐
HS24030094-14	MW-48	Water		01-Mar-2024 11:25	01-Mar-2024 14:55	☐
HS24030094-15	MW-50	Water		01-Mar-2024 12:05	01-Mar-2024 14:55	☐
HS24030094-16	MW-52	Water		01-Mar-2024 12:45	01-Mar-2024 14:55	☐
HS24030094-17	MW-54	Water		01-Mar-2024 12:40	01-Mar-2024 14:55	☐
HS24030094-18	MW-55R	Water		01-Mar-2024 12:20	01-Mar-2024 14:55	☐
HS24030094-19	MW-58	Water		01-Mar-2024 10:05	01-Mar-2024 14:55	☐
HS24030094-20	MW-65	Water		01-Mar-2024 13:00	01-Mar-2024 14:55	☐
HS24030094-21	MW-36	Water		01-Mar-2024 10:40	01-Mar-2024 14:55	☐
HS24030094-22	MW-37	Water		01-Mar-2024 08:25	01-Mar-2024 14:55	☐
HS24030094-23	MW-38R	Water		01-Mar-2024 09:05	01-Mar-2024 14:55	☐
HS24030094-24	MW-60	Water		01-Mar-2024 11:20	01-Mar-2024 14:55	☐
HS24030094-25	MW-61	Water		01-Mar-2024 09:45	01-Mar-2024 14:55	☐
HS24030094-26	Field Blank-01	Water		01-Mar-2024 10:00	01-Mar-2024 14:55	☐

Client: TRC
Project: WA Parish CCR Program
Work Order: HS24030094

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24030094-27	Field Duplicate-1	Water		01-Mar-2024 11:00	01-Mar-2024 14:55	☐
HS24030094-28	Field Duplicate-2	Water		01-Mar-2024 09:00	01-Mar-2024 14:55	☐

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-39R		Lab ID:HS24030094-01
Collection Date:	01-Mar-2024 08:50		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.172**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 17:31
Calcium	**205**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:34
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**321**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 13:32
Sulfate	**246**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 13:32
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,200**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-40		Lab ID:HS24030094-02
Collection Date:	01-Mar-2024 11:30		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.100**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 17:33
Calcium	**288**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:35
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**520**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 13:43
Sulfate	**104**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 13:43
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,740**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-41		Lab ID:HS24030094-03
Collection Date:	01-Mar-2024 09:25		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.0696**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:17
Calcium	**177**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:17
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**481**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 13:55
Sulfate	**57.1**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 13:49
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,510**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-62		Lab ID:HS24030094-04
Collection Date:	01-Mar-2024 08:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.0871**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:18
Calcium	**212**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:37
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**431**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 14:07
Sulfate	**238**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 14:07
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,510**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-63		Lab ID:HS24030094-05
Collection Date:	01-Mar-2024 10:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.628**		**0.110**	**0.200**	**mg/L**	10	09-Mar-2024 11:28
Calcium	**180**		**0.340**	**5.00**	**mg/L**	10	09-Mar-2024 11:28
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**128**		**0.400**	**1.00**	**mg/L**	2	05-Mar-2024 15:01
Sulfate	**370**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 15:49
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**968**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

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Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24030094
Sample ID:	MW-64	Lab ID:HS24030094-06
Collection Date:	01-Mar-2024 10:50	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.0939**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:20
Calcium	**262**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:39
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**548**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 14:19
Sulfate	**52.8**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 14:13
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,920**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24030094
Sample ID:	MW-23R	Lab ID:HS24030094-07
Collection Date:	01-Mar-2024 11:45	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.308**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:22
Calcium	**616**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:41
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1,050**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 15:19
Sulfate	**1,500**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 15:19
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**4,020**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-28D		Lab ID:HS24030094-08
Collection Date:	01-Mar-2024 12:10		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.148**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:24
Calcium	**114**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:24
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**136**		**1.00**	**2.50**	**mg/L**	5	05-Mar-2024 15:31
Sulfate	**99.1**		**1.00**	**2.50**	**mg/L**	5	05-Mar-2024 15:31
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**764**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 08:45
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		ANALYTICAL REPORT
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-42		Lab ID:HS24030094-09
Collection Date:	01-Mar-2024 10:55		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.553**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:26
Calcium	**161**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:26
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**307**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 16:36
Sulfate	**544**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 16:36
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,860**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ANALYTICAL REPORT

Client: TRC
Project: WA Parish CCR Program
Sample ID: MW-43
Collection Date: 01-Mar-2024 12:25

WorkOrder:HS24030094
Lab ID:HS24030094-10
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.366**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:28
Calcium	**85.6**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:28
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**218**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 16:48
Sulfate	**76.3**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 16:42
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**868**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-44		Lab ID:HS24030094-11
Collection Date:	01-Mar-2024 09:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.219**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:30
Calcium	**120**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:30
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**227**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 17:00
Sulfate	**125**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 17:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**912**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-46R		Lab ID:HS24030094-12
Collection Date:	01-Mar-2024 08:25		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.185**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:32
Calcium	**120**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:32
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**167**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 17:12
Sulfate	**101**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 17:12
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**804**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24030094
Sample ID:	MW-47	Lab ID:HS24030094-13
Collection Date:	01-Mar-2024 10:45	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.249**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:40
Calcium	**121**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:40
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**311**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 17:48
Sulfate	**86.0**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 17:42
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,030**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-48		Lab ID:HS24030094-14
Collection Date:	01-Mar-2024 11:25		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.585**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:42
Calcium	**75.2**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:42
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**368**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 18:00
Sulfate	**98.1**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 17:54
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,080**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-50		Lab ID:HS24030094-15
Collection Date:	01-Mar-2024 12:05		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.254**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:43
Calcium	**134**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:43
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**389**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 18:12
Sulfate	**139**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 18:12
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,230**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-52		Lab ID:HS24030094-16
Collection Date:	01-Mar-2024 12:45		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.292**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:45
Calcium	**202**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:47
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**533**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 18:18
Sulfate	**438**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 18:18
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**2,030**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-54		Lab ID:HS24030094-17
Collection Date:	01-Mar-2024 12:40		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.274**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:47
Calcium	**116**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:47
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**262**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 18:30
Sulfate	**93.3**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 18:24
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**936**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-55R		Lab ID:HS24030094-18
Collection Date:	01-Mar-2024 12:20		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.507**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:49
Calcium	**122**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 18:49
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**316**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 19:17
Sulfate	**102**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 19:17
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,160**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-58		Lab ID:HS24030094-19
Collection Date:	01-Mar-2024 10:05		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**0.336**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 23:13
Calcium	**107**		**0.0340**	**0.500**	**mg/L**	1	08-Mar-2024 23:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**281**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 19:29
Sulfate	**94.4**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 19:29
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,040**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-65		Lab ID:HS24030094-20
Collection Date:	01-Mar-2024 13:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.348**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:51
Calcium	**216**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:49
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**284**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 18:36
Sulfate	**535**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 18:36
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,870**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24030094
Sample ID:	MW-36	Lab ID:HS24030094-21
Collection Date:	01-Mar-2024 10:40	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: JC
Boron	**0.0686**		**0.0110**	**0.0200**	**mg/L**	1	08-Mar-2024 18:53
Calcium	**240**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:51
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**296**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 19:53
Sulfate	**425**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 19:53
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,470**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	MW-37		Lab ID:HS24030094-22
Collection Date:	01-Mar-2024 08:25		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**0.479**		**0.220**	**0.400**	**mg/L**	20	09-Mar-2024 11:25
Calcium	**280**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:25
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**252**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 20:41
Sulfate	**1,140**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 20:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**2,330**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24030094
Sample ID:	MW-38R	Lab ID:HS24030094-23
Collection Date:	01-Mar-2024 09:05	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**0.378**		**0.0110**	**0.0200**	**mg/L**	1	09-Mar-2024 00:28
Calcium	**237**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:28
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**264**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 19:59
Sulfate	**705**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 19:59
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**2,000**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24030094
Sample ID:	MW-60	Lab ID:HS24030094-24
Collection Date:	01-Mar-2024 11:20	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**0.104**		**0.0550**	**0.100**	**mg/L**	5	09-Mar-2024 14:13
Calcium	**212**		**0.340**	**5.00**	**mg/L**	10	09-Mar-2024 11:23
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**294**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 21:05
Sulfate	**296**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 21:05
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,330**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24030094
Sample ID:	MW-61	Lab ID:HS24030094-25
Collection Date:	01-Mar-2024 09:45	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**1.28**		**0.220**	**0.400**	**mg/L**	20	09-Mar-2024 11:30
Calcium	**279**		**0.680**	**10.0**	**mg/L**	20	09-Mar-2024 11:30
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**131**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 21:11
Sulfate	**1,160**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 21:11
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**2,090**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	Field Blank-01		Lab ID:HS24030094-26
Collection Date:	01-Mar-2024 10:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**0.0487**		**0.0110**	**0.0200**	**mg/L**	1	09-Mar-2024 11:16
Calcium	**0.135**	J	**0.0340**	**0.500**	**mg/L**	1	09-Mar-2024 00:35
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1.12**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 20:05
Sulfate	**0.739**		**0.200**	**0.500**	**mg/L**	1	05-Mar-2024 20:05
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**8.00**	J	**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	Field Duplicate-1		Lab ID:HS24030094-27
Collection Date:	01-Mar-2024 11:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**0.0666**		**0.0110**	**0.0200**	**mg/L**	1	09-Mar-2024 12:52
Calcium	**218**		**0.340**	**5.00**	**mg/L**	10	09-Mar-2024 11:20
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**294**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 21:17
Sulfate	**431**		**4.00**	**10.0**	**mg/L**	20	05-Mar-2024 21:17
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,410**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24030094
Sample ID:	Field Duplicate-2		Lab ID:HS24030094-28
Collection Date:	01-Mar-2024 09:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 05-Mar-2024		Analyst: MSC
Boron	**0.242**		**0.0110**	**0.0200**	**mg/L**	1	09-Mar-2024 11:18
Calcium	**104**		**0.0340**	**0.500**	**mg/L**	1	09-Mar-2024 00:40
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**228**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 21:28
Sulfate	**127**		**2.00**	**5.00**	**mg/L**	10	05-Mar-2024 21:28
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,070**		**5.00**	**10.0**	**mg/L**	1	05-Mar-2024 11:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	08-Mar-2024 08:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

Batch ID: 208402 **Start Date:** 05 Mar 2024 14:30 **End Date:** 05 Mar 2024 14:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24030094-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-13		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-14		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-15		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-16		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-17		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-18		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-20		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-21		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 208403 **Start Date:** 05 Mar 2024 14:00 **End Date:** 05 Mar 2024 14:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24030094-19		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-22		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-23		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-24		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-25		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-26		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-27		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030094-28		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 208402 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24030094-01	MW-39R	01 Mar 2024 08:50		05 Mar 2024 14:30	09 Mar 2024 11:34	20
HS24030094-01	MW-39R	01 Mar 2024 08:50		05 Mar 2024 14:30	08 Mar 2024 17:31	1
HS24030094-02	MW-40	01 Mar 2024 11:30		05 Mar 2024 14:30	09 Mar 2024 11:35	20
HS24030094-02	MW-40	01 Mar 2024 11:30		05 Mar 2024 14:30	08 Mar 2024 17:33	1
HS24030094-03	MW-41	01 Mar 2024 09:25		05 Mar 2024 14:30	08 Mar 2024 18:17	1
HS24030094-04	MW-62	01 Mar 2024 08:15		05 Mar 2024 14:30	09 Mar 2024 11:37	20
HS24030094-04	MW-62	01 Mar 2024 08:15		05 Mar 2024 14:30	08 Mar 2024 18:18	1
HS24030094-05	MW-63	01 Mar 2024 10:00		05 Mar 2024 14:30	09 Mar 2024 11:28	10
HS24030094-06	MW-64	01 Mar 2024 10:50		05 Mar 2024 14:30	09 Mar 2024 11:39	20
HS24030094-06	MW-64	01 Mar 2024 10:50		05 Mar 2024 14:30	08 Mar 2024 18:20	1
HS24030094-07	MW-23R	01 Mar 2024 11:45		05 Mar 2024 14:30	09 Mar 2024 11:41	20
HS24030094-07	MW-23R	01 Mar 2024 11:45		05 Mar 2024 14:30	08 Mar 2024 18:22	1
HS24030094-08	MW-28D	01 Mar 2024 12:10		05 Mar 2024 14:30	08 Mar 2024 18:24	1
HS24030094-09	MW-42	01 Mar 2024 10:55		05 Mar 2024 14:30	08 Mar 2024 18:26	1
HS24030094-10	MW-43	01 Mar 2024 12:25		05 Mar 2024 14:30	08 Mar 2024 18:28	1
HS24030094-11	MW-44	01 Mar 2024 09:15		05 Mar 2024 14:30	08 Mar 2024 18:30	1
HS24030094-12	MW-46R	01 Mar 2024 08:25		05 Mar 2024 14:30	08 Mar 2024 18:32	1
HS24030094-13	MW-47	01 Mar 2024 10:45		05 Mar 2024 14:30	08 Mar 2024 18:40	1
HS24030094-14	MW-48	01 Mar 2024 11:25		05 Mar 2024 14:30	08 Mar 2024 18:42	1
HS24030094-15	MW-50	01 Mar 2024 12:05		05 Mar 2024 14:30	08 Mar 2024 18:43	1
HS24030094-16	MW-52	01 Mar 2024 12:45		05 Mar 2024 14:30	09 Mar 2024 11:47	20
HS24030094-16	MW-52	01 Mar 2024 12:45		05 Mar 2024 14:30	08 Mar 2024 18:45	1
HS24030094-17	MW-54	01 Mar 2024 12:40		05 Mar 2024 14:30	08 Mar 2024 18:47	1
HS24030094-18	MW-55R	01 Mar 2024 12:20		05 Mar 2024 14:30	08 Mar 2024 18:49	1
HS24030094-20	MW-65	01 Mar 2024 13:00		05 Mar 2024 14:30	09 Mar 2024 11:49	20
HS24030094-20	MW-65	01 Mar 2024 13:00		05 Mar 2024 14:30	08 Mar 2024 18:51	1
HS24030094-21	MW-36	01 Mar 2024 10:40		05 Mar 2024 14:30	09 Mar 2024 11:51	20
HS24030094-21	MW-36	01 Mar 2024 10:40		05 Mar 2024 14:30	08 Mar 2024 18:53	1

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 208403 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24030094-19	MW-58	01 Mar 2024 10:05		05 Mar 2024 14:00	08 Mar 2024 23:13	1
HS24030094-22	MW-37	01 Mar 2024 08:25		05 Mar 2024 14:00	09 Mar 2024 11:25	20
HS24030094-23	MW-38R	01 Mar 2024 09:05		05 Mar 2024 14:00	09 Mar 2024 11:28	20
HS24030094-23	MW-38R	01 Mar 2024 09:05		05 Mar 2024 14:00	09 Mar 2024 00:28	1
HS24030094-24	MW-60	01 Mar 2024 11:20		05 Mar 2024 14:00	09 Mar 2024 14:13	5
HS24030094-24	MW-60	01 Mar 2024 11:20		05 Mar 2024 14:00	09 Mar 2024 11:23	10
HS24030094-25	MW-61	01 Mar 2024 09:45		05 Mar 2024 14:00	09 Mar 2024 11:30	20
HS24030094-26	Field Blank-01	01 Mar 2024 10:00		05 Mar 2024 14:00	09 Mar 2024 11:16	1
HS24030094-26	Field Blank-01	01 Mar 2024 10:00		05 Mar 2024 14:00	09 Mar 2024 00:35	1
HS24030094-27	Field Duplicate-1	01 Mar 2024 11:00		05 Mar 2024 14:00	09 Mar 2024 12:52	1
HS24030094-27	Field Duplicate-1	01 Mar 2024 11:00		05 Mar 2024 14:00	09 Mar 2024 11:20	10
HS24030094-28	Field Duplicate-2	01 Mar 2024 09:00		05 Mar 2024 14:00	09 Mar 2024 11:18	1
HS24030094-28	Field Duplicate-2	01 Mar 2024 09:00		05 Mar 2024 14:00	09 Mar 2024 00:40	1
Batch ID: R460548 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24030094-01	MW-39R	01 Mar 2024 08:50			05 Mar 2024 08:45	1
HS24030094-02	MW-40	01 Mar 2024 11:30			05 Mar 2024 08:45	1
HS24030094-03	MW-41	01 Mar 2024 09:25			05 Mar 2024 08:45	1
HS24030094-04	MW-62	01 Mar 2024 08:15			05 Mar 2024 08:45	1
HS24030094-05	MW-63	01 Mar 2024 10:00			05 Mar 2024 08:45	1
HS24030094-06	MW-64	01 Mar 2024 10:50			05 Mar 2024 08:45	1
HS24030094-07	MW-23R	01 Mar 2024 11:45			05 Mar 2024 08:45	1
HS24030094-08	MW-28D	01 Mar 2024 12:10			05 Mar 2024 08:45	1
Batch ID: R460555 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24030094-01	MW-39R	01 Mar 2024 08:50			05 Mar 2024 13:32	10
HS24030094-02	MW-40	01 Mar 2024 11:30			05 Mar 2024 13:43	10
HS24030094-03	MW-41	01 Mar 2024 09:25			05 Mar 2024 13:55	10
HS24030094-03	MW-41	01 Mar 2024 09:25			05 Mar 2024 13:49	1
HS24030094-04	MW-62	01 Mar 2024 08:15			05 Mar 2024 14:07	10
HS24030094-05	MW-63	01 Mar 2024 10:00			05 Mar 2024 15:49	10
HS24030094-05	MW-63	01 Mar 2024 10:00			05 Mar 2024 15:01	2
HS24030094-06	MW-64	01 Mar 2024 10:50			05 Mar 2024 14:19	10
HS24030094-06	MW-64	01 Mar 2024 10:50			05 Mar 2024 14:13	1
HS24030094-07	MW-23R	01 Mar 2024 11:45			05 Mar 2024 15:19	20
HS24030094-08	MW-28D	01 Mar 2024 12:10			05 Mar 2024 15:31	5

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R460556 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24030094-09	MW-42	01 Mar 2024 10:55			05 Mar 2024 16:36	10
HS24030094-10	MW-43	01 Mar 2024 12:25			05 Mar 2024 16:48	10
HS24030094-10	MW-43	01 Mar 2024 12:25			05 Mar 2024 16:42	1
HS24030094-11	MW-44	01 Mar 2024 09:15			05 Mar 2024 17:00	10
HS24030094-12	MW-46R	01 Mar 2024 08:25			05 Mar 2024 17:12	10
HS24030094-13	MW-47	01 Mar 2024 10:45			05 Mar 2024 17:48	10
HS24030094-13	MW-47	01 Mar 2024 10:45			05 Mar 2024 17:42	1
HS24030094-14	MW-48	01 Mar 2024 11:25			05 Mar 2024 18:00	10
HS24030094-14	MW-48	01 Mar 2024 11:25			05 Mar 2024 17:54	1
HS24030094-15	MW-50	01 Mar 2024 12:05			05 Mar 2024 18:12	10
HS24030094-16	MW-52	01 Mar 2024 12:45			05 Mar 2024 18:18	20
HS24030094-17	MW-54	01 Mar 2024 12:40			05 Mar 2024 18:30	10
HS24030094-17	MW-54	01 Mar 2024 12:40			05 Mar 2024 18:24	1
HS24030094-18	MW-55R	01 Mar 2024 12:20			05 Mar 2024 19:17	10
HS24030094-19	MW-58	01 Mar 2024 10:05			05 Mar 2024 19:29	10
HS24030094-20	MW-65	01 Mar 2024 13:00			05 Mar 2024 18:36	10
HS24030094-21	MW-36	01 Mar 2024 10:40			05 Mar 2024 19:53	10
HS24030094-22	MW-37	01 Mar 2024 08:25			05 Mar 2024 20:41	20
HS24030094-23	MW-38R	01 Mar 2024 09:05			05 Mar 2024 19:59	20
HS24030094-24	MW-60	01 Mar 2024 11:20			05 Mar 2024 21:05	10
HS24030094-25	MW-61	01 Mar 2024 09:45			05 Mar 2024 21:11	20
HS24030094-26	Field Blank-01	01 Mar 2024 10:00			05 Mar 2024 20:05	1
HS24030094-27	Field Duplicate-1	01 Mar 2024 11:00			05 Mar 2024 21:17	20
HS24030094-28	Field Duplicate-2	01 Mar 2024 09:00			05 Mar 2024 21:28	10

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R460567 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24030094-09	MW-42	01 Mar 2024 10:55			05 Mar 2024 11:55	1
HS24030094-10	MW-43	01 Mar 2024 12:25			05 Mar 2024 11:55	1
HS24030094-11	MW-44	01 Mar 2024 09:15			05 Mar 2024 11:55	1
HS24030094-12	MW-46R	01 Mar 2024 08:25			05 Mar 2024 11:55	1
HS24030094-13	MW-47	01 Mar 2024 10:45			05 Mar 2024 11:55	1
HS24030094-14	MW-48	01 Mar 2024 11:25			05 Mar 2024 11:55	1
HS24030094-15	MW-50	01 Mar 2024 12:05			05 Mar 2024 11:55	1
HS24030094-16	MW-52	01 Mar 2024 12:45			05 Mar 2024 11:55	1
HS24030094-17	MW-54	01 Mar 2024 12:40			05 Mar 2024 11:55	1
HS24030094-18	MW-55R	01 Mar 2024 12:20			05 Mar 2024 11:55	1
HS24030094-19	MW-58	01 Mar 2024 10:05			05 Mar 2024 11:55	1
HS24030094-20	MW-65	01 Mar 2024 13:00			05 Mar 2024 11:55	1
HS24030094-21	MW-36	01 Mar 2024 10:40			05 Mar 2024 11:55	1
HS24030094-22	MW-37	01 Mar 2024 08:25			05 Mar 2024 11:55	1
HS24030094-23	MW-38R	01 Mar 2024 09:05			05 Mar 2024 11:55	1
HS24030094-24	MW-60	01 Mar 2024 11:20			05 Mar 2024 11:55	1
HS24030094-25	MW-61	01 Mar 2024 09:45			05 Mar 2024 11:55	1
HS24030094-26	Field Blank-01	01 Mar 2024 10:00			05 Mar 2024 11:55	1
HS24030094-27	Field Duplicate-1	01 Mar 2024 11:00			05 Mar 2024 11:55	1
HS24030094-28	Field Duplicate-2	01 Mar 2024 09:00			05 Mar 2024 11:55	1

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R460794 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24030094-01	MW-39R	01 Mar 2024 08:50			08 Mar 2024 08:58	1
HS24030094-02	MW-40	01 Mar 2024 11:30			08 Mar 2024 08:58	1
HS24030094-03	MW-41	01 Mar 2024 09:25			08 Mar 2024 08:58	1
HS24030094-04	MW-62	01 Mar 2024 08:15			08 Mar 2024 08:58	1
HS24030094-05	MW-63	01 Mar 2024 10:00			08 Mar 2024 08:58	1
HS24030094-06	MW-64	01 Mar 2024 10:50			08 Mar 2024 08:58	1
HS24030094-07	MW-23R	01 Mar 2024 11:45			08 Mar 2024 08:58	1
HS24030094-08	MW-28D	01 Mar 2024 12:10			08 Mar 2024 08:58	1
HS24030094-09	MW-42	01 Mar 2024 10:55			08 Mar 2024 08:58	1
HS24030094-10	MW-43	01 Mar 2024 12:25			08 Mar 2024 08:58	1
HS24030094-11	MW-44	01 Mar 2024 09:15			08 Mar 2024 08:58	1
HS24030094-12	MW-46R	01 Mar 2024 08:25			08 Mar 2024 08:58	1
HS24030094-13	MW-47	01 Mar 2024 10:45			08 Mar 2024 08:58	1
HS24030094-14	MW-48	01 Mar 2024 11:25			08 Mar 2024 08:58	1
HS24030094-15	MW-50	01 Mar 2024 12:05			08 Mar 2024 08:58	1
HS24030094-16	MW-52	01 Mar 2024 12:45			08 Mar 2024 08:58	1
HS24030094-17	MW-54	01 Mar 2024 12:40			08 Mar 2024 08:58	1
HS24030094-18	MW-55R	01 Mar 2024 12:20			08 Mar 2024 08:58	1
HS24030094-19	MW-58	01 Mar 2024 10:05			08 Mar 2024 08:58	1
HS24030094-20	MW-65	01 Mar 2024 13:00			08 Mar 2024 08:58	1
HS24030094-21	MW-36	01 Mar 2024 10:40			08 Mar 2024 08:58	1
HS24030094-22	MW-37	01 Mar 2024 08:25			08 Mar 2024 08:58	1
HS24030094-23	MW-38R	01 Mar 2024 09:05			08 Mar 2024 08:58	1
HS24030094-24	MW-60	01 Mar 2024 11:20			08 Mar 2024 08:58	1
HS24030094-25	MW-61	01 Mar 2024 09:45			08 Mar 2024 08:58	1
HS24030094-26	Field Blank-01	01 Mar 2024 10:00			08 Mar 2024 08:58	1
HS24030094-27	Field Duplicate-1	01 Mar 2024 11:00			08 Mar 2024 08:58	1
HS24030094-28	Field Duplicate-2	01 Mar 2024 09:00			08 Mar 2024 08:58	1

WorkOrder:	HS24030094
InstrumentID:	ICPMS06
Test Code:	ICP_TW
Test Number:	SW6020A
Test Name:	ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0125	0.00864	0.0110	0.0200
A	Calcium	7440-70-2	0.0500	0.0677	0.0340	0.500

WorkOrder: HS24030094
InstrumentID: ICPMS07
Test Code: ICP_TW
Test Number: SW6020A
Test Name: ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0125	0.0151	0.0110	0.0200
A	Calcium	7440-70-2	0.0500	0.256	0.0340	0.500

WorkOrder: HS24030094
InstrumentID: Subcontract
Test Code: Sub_Flouride
Test Number: NA
Test Name: Subcontract Analysis - Flouride

METHOD DETECTION / REPORTING LIMITS

Matrix:

Units:

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Subcontract Analysis		0	0	0	0

WorkOrder: HS24030094
InstrumentID: ICS-Integrion
Test Code: 300_W
Test Number: E300
Test Name: Anions by E300.0, Rev 2.1, 1993

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Chloride	16887-00-6	0.250	0.326	0.200	0.500
A	Sulfate	14808-79-8	0.250	0.371	0.200	0.500

WorkOrder:	HS24030094
InstrumentID:	Balance1
Test Code:	TDS_W 2540C
Test Number:	M2540C
Test Name:	Total Dissolved Solids by SM2540C

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Total Dissolved Solids (Residue, Filterable)	TDS	5.00	0.00100	5.00	10.0

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: 208402 (0) **Instrument:** ICPMS06 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-208402** Units: **mg/L** Analysis Date: **08-Mar-2024 17:18**
Client ID: Run ID: **ICPMS06_460884** SeqNo: **7877116** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	< 0.0110	0.0200								
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-208402** Units: **mg/L** Analysis Date: **08-Mar-2024 17:20**
Client ID: Run ID: **ICPMS06_460884** SeqNo: **7877117** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4917	0.0200	0.5	0	98.3	80 - 120				
Calcium	4.766	0.500	5	0	95.3	80 - 120				

MS Sample ID: **HS24030094-05MS** Units: **mg/L** Analysis Date: **08-Mar-2024 17:26**
Client ID: **MW-63** Run ID: **ICPMS06_460884** SeqNo: **7877120** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	1.083	0.0200	0.5	0.5759	101	80 - 120				E
Calcium	185.1	0.500	5	179.3	116	80 - 120				EO

MSD Sample ID: **HS24030094-05MSD** Units: **mg/L** Analysis Date: **08-Mar-2024 17:27**
Client ID: **MW-63** Run ID: **ICPMS06_460884** SeqNo: **7877121** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	1.114	0.0200	0.5	0.5759	108	80 - 120	1.083	2.83	20	E
Calcium	187.9	0.500	5	179.3	172	80 - 120	185.1	1.49	20	SEO

PDS Sample ID: **HS24030094-05PDS** Units: **mg/L** Analysis Date: **09-Mar-2024 11:32**
Client ID: **MW-63** Run ID: **ICPMS06_460915** SeqNo: **7878212** PrepDate: **05-Mar-2024** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	5.852	0.200	5	0.6278	104	75 - 125				
Calcium	267	5.00	100	180.1	86.9	75 - 125				

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: 208402 (0) **Instrument:** ICPMS06 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24030094-05SD** Units: **mg/L** Analysis Date: **09-Mar-2024 11:30**

Client ID: **MW-63** Run ID: **ICPMS06_460915** SeqNo: **7878211** PrepDate: **05-Mar-2024** DF: **50**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.7719	1.00					0.6278	0	10	J
Calcium	184.4	25.0					180.1	2.37	10	

The following samples were analyzed in this batch:

HS24030094-01	HS24030094-02	HS24030094-03	HS24030094-04
HS24030094-05	HS24030094-06	HS24030094-07	HS24030094-08
HS24030094-09	HS24030094-10	HS24030094-11	HS24030094-12
HS24030094-13	HS24030094-14	HS24030094-15	HS24030094-16
HS24030094-17	HS24030094-18	HS24030094-20	HS24030094-21

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: 208403 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-208403** Units: **mg/L** Analysis Date: **08-Mar-2024 23:04**
Client ID: Run ID: **ICPMS07_460886** SeqNo: **7877375** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	< 0.0110	0.0200								
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-208403** Units: **mg/L** Analysis Date: **08-Mar-2024 23:06**
Client ID: Run ID: **ICPMS07_460886** SeqNo: **7877376** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4679	0.0200	0.5	0	93.6	80 - 120				
Calcium	4.987	0.500	5	0	99.7	80 - 120				

MS Sample ID: **HS24030094-19MS** Units: **mg/L** Analysis Date: **08-Mar-2024 23:18**
Client ID: **MW-58** Run ID: **ICPMS07_460886** SeqNo: **7877381** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.789	0.0200	0.5	0.336	90.6	80 - 120				
Calcium	108.3	0.500	5	106.7	32.7	80 - 120				SO

MSD Sample ID: **HS24030094-19MSD** Units: **mg/L** Analysis Date: **08-Mar-2024 23:20**
Client ID: **MW-58** Run ID: **ICPMS07_460886** SeqNo: **7877382** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7736	0.0200	0.5	0.336	87.5	80 - 120	0.789	1.97	20	
Calcium	98.66	0.500	5	106.7	-160	80 - 120	108.3	9.31	20	SO

PDS Sample ID: **HS24030094-19PDS** Units: **mg/L** Analysis Date: **08-Mar-2024 23:22**
Client ID: **MW-58** Run ID: **ICPMS07_460886** SeqNo: **7877383** PrepDate: **05-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7673	0.0200	0.5	0.336	86.2	75 - 125				
Calcium	103.9	0.500	10	106.7	-27.8	75 - 125				SO

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: 208403 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24030094-19SD** Units: **mg/L** Analysis Date: **08-Mar-2024 23:15**

Client ID: **MW-58** Run ID: **ICPMS07_460886** SeqNo: **7877380** PrepDate: **05-Mar-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.3485	0.100					0.336	3.7	10	
Calcium	105.4	2.50					106.7	1.14	10	

The following samples were analyzed in this batch:

HS24030094-19	HS24030094-22	HS24030094-23	HS24030094-24
HS24030094-25	HS24030094-26	HS24030094-27	HS24030094-28

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: R460548 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-03052024** Units: **mg/L** Analysis Date: **05-Mar-2024 08:45**
Client ID: Run ID: **Balance1_460548** SeqNo: **7869723** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-03052024** Units: **mg/L** Analysis Date: **05-Mar-2024 08:45**
Client ID: Run ID: **Balance1_460548** SeqNo: **7869722** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1040	10.0	1000	0	104	85 - 115				

DUP Sample ID: **HS24030094-07DUP** Units: **mg/L** Analysis Date: **05-Mar-2024 08:45**
Client ID: **MW-23R** Run ID: **Balance1_460548** SeqNo: **7869720** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	4040	10.0					4020	0.496	20	

DUP Sample ID: **HS24030094-05DUP** Units: **mg/L** Analysis Date: **05-Mar-2024 08:45**
Client ID: **MW-63** Run ID: **Balance1_460548** SeqNo: **7869717** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	944	10.0					968	2.51	20	

The following samples were analyzed in this batch:

HS24030094-01	HS24030094-02	HS24030094-03	HS24030094-04
HS24030094-05	HS24030094-06	HS24030094-07	HS24030094-08

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: R460555 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **05-Mar-2024 10:50**
Client ID: Run ID: **ICS-Integrion_460555** SeqNo: **7870133** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **05-Mar-2024 10:56**
Client ID: Run ID: **ICS-Integrion_460555** SeqNo: **7870134** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.32	0.500	20	0	102	90 - 110				
Sulfate	20.34	0.500	20	0	102	90 - 110				

MS Sample ID: **HS24030094-05MS** Units: **mg/L** Analysis Date: **05-Mar-2024 15:07**
Client ID: **MW-63** Run ID: **ICS-Integrion_460555** SeqNo: **7870162** PrepDate: DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	149.2	1.00	20	128	106	80 - 120				O
Sulfate	366.4	1.00	20	359.7	33.5	80 - 120				SEO

MS Sample ID: **HS24030086-22MS** Units: **mg/L** Analysis Date: **05-Mar-2024 12:14**
Client ID: Run ID: **ICS-Integrion_460555** SeqNo: **7870143** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	639.4	5.00	100	544.2	95.2	80 - 120				O
Sulfate	572.6	5.00	100	502.4	70.2	80 - 120				SO

MSD Sample ID: **HS24030094-05MSD** Units: **mg/L** Analysis Date: **05-Mar-2024 15:13**
Client ID: **MW-63** Run ID: **ICS-Integrion_460555** SeqNo: **7870163** PrepDate: DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	148.6	1.00	20	128	103	80 - 120	149.2	0.419	20	O
Sulfate	365.5	1.00	20	359.7	28.7	80 - 120	366.4	0.262	20	SEO

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: **R460555 (0)** **Instrument:** **ICS-Integrion** **Method:** **ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS24030086-22MSD** Units: **mg/L** Analysis Date: **05-Mar-2024 12:20**
Client ID: Run ID: **ICS-Integrion_460555** SeqNo: **7870144** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	648.8	5.00	100	544.2	105	80 - 120	639.4	1.45	20	O
Sulfate	580.6	5.00	100	502.4	78.3	80 - 120	572.6	1.39	20	SO

The following samples were analyzed in this batch:

HS24030094-01	HS24030094-02	HS24030094-03	HS24030094-04
HS24030094-05	HS24030094-06	HS24030094-07	HS24030094-08

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: R460556 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **05-Mar-2024 16:25**
Client ID: Run ID: **ICS-Integrion_460556** SeqNo: **7870173** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **05-Mar-2024 16:30**
Client ID: Run ID: **ICS-Integrion_460556** SeqNo: **7870174** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.31	0.500	20	0	102	90 - 110				
Sulfate	20.63	0.500	20	0	103	90 - 110				

MS Sample ID: **HS24030094-22MS** Units: **mg/L** Analysis Date: **05-Mar-2024 20:47**
Client ID: **MW-37** Run ID: **ICS-Integrion_460556** SeqNo: **7870209** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	451.4	10.0	200	252.4	99.5	80 - 120				
Sulfate	1250	10.0	200	1143	53.8	80 - 120				SO

MS Sample ID: **HS24030094-19MS** Units: **mg/L** Analysis Date: **05-Mar-2024 19:35**
Client ID: **MW-58** Run ID: **ICS-Integrion_460556** SeqNo: **7870200** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	374.4	5.00	100	281.3	93.1	80 - 120				
Sulfate	189	5.00	100	94.42	94.6	80 - 120				

MSD Sample ID: **HS24030094-22MSD** Units: **mg/L** Analysis Date: **05-Mar-2024 20:53**
Client ID: **MW-37** Run ID: **ICS-Integrion_460556** SeqNo: **7870210** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	450.7	10.0	200	252.4	99.1	80 - 120	451.4	0.173	20	
Sulfate	1249	10.0	200	1143	53.3	80 - 120	1250	0.085	20	SO

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: R460556 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS24030094-19MSD** Units: **mg/L** Analysis Date: **05-Mar-2024 19:41**

Client ID: **MW-58** Run ID: **ICS-Integrion_460556** SeqNo: **7870201** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	378.7	5.00	100	281.3	97.4	80 - 120	374.4	1.16	20	
Sulfate	192.1	5.00	100	94.42	97.7	80 - 120	189	1.61	20	

The following samples were analyzed in this batch:

HS24030094-09	HS24030094-10	HS24030094-11	HS24030094-12
HS24030094-13	HS24030094-14	HS24030094-15	HS24030094-16
HS24030094-17	HS24030094-18	HS24030094-19	HS24030094-20
HS24030094-21	HS24030094-22	HS24030094-23	HS24030094-24
HS24030094-25	HS24030094-26	HS24030094-27	HS24030094-28

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24030094

QC BATCH REPORT

Batch ID: R460567 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-03052024** Units: **mg/L** Analysis Date: **05-Mar-2024 11:55**
Client ID: Run ID: **Balance1_460567** SeqNo: **7870416** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-03052024** Units: **mg/L** Analysis Date: **05-Mar-2024 11:55**
Client ID: Run ID: **Balance1_460567** SeqNo: **7870415** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1024	10.0	1000	0	102	85 - 115				

DUP Sample ID: **HS24030094-25DUP** Units: **mg/L** Analysis Date: **05-Mar-2024 11:55**
Client ID: **MW-61** Run ID: **Balance1_460567** SeqNo: **7870411** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1980	10.0					2090	5.41	20	

DUP Sample ID: **HS24030094-19DUP** Units: **mg/L** Analysis Date: **05-Mar-2024 11:55**
Client ID: **MW-58** Run ID: **Balance1_460567** SeqNo: **7870404** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1036	10.0					1036	0	20	

The following samples were analyzed in this batch:

HS24030094-09	HS24030094-10	HS24030094-11	HS24030094-12
HS24030094-13	HS24030094-14	HS24030094-15	HS24030094-16
HS24030094-17	HS24030094-18	HS24030094-19	HS24030094-20
HS24030094-21	HS24030094-22	HS24030094-23	HS24030094-24
HS24030094-25	HS24030094-26	HS24030094-27	HS24030094-28

Client:	TRC	**QUALIFIERS, ACRONYMS, UNITS**
Project:	WA Parish CCR Program	
WorkOrder:	**HS24030094**	

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L22-90-R2	31-Mar-2024
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

Sample Receipt Checklist

Work Order ID: HS24030094
Client Name: TRC-HOU

Date/Time Received: **01-Mar-2024 14:55**
Received by: **Paresh M. Giga**

Completed By:	/S/ Paresh M. Giga	04-Mar-2024 12:45	**Reviewed by:** /S/ Andy C. Neir	05-Mar-2024 13:43
	eSignature	Date/Time	eSignature	Date/Time

Matrices: **Water**

Carrier name: **Client**

	Yes	No	
Shipping container/cooler in good condition?	☑	☐	Not Present ☐
Custody seals intact on shipping container/cooler?	☑	☐	Not Present ☐
Custody seals intact on sample bottles?	☐	☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☐	Not Present ☑
Chain of custody present?	☑	☐	4 Page(s)
Chain of custody signed when relinquished and received?	☑	☐	COC IDs:312157/312156/312155/312154
Samplers name present on COC?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	3.2C/3.1C; 2.8C/2.7C U/C	IR31
Cooler(s)/Kit(s):	45092/50722	
Date/Time sample(s) sent to storage:	3/4/24 14:20	

	Yes	No	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☑	☐	N/A ☐
pH adjusted?	☐	☑	N/A ☐

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS

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Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 4

COC ID: 312157

ALS Project Manager:

HS24030094
TRC
WA Parish CCR Program

Customer Information		Project Information			
Purchase Order	211381	Project Name	WA Parish CCR Program	A	ICP_TW (B and Ca)- Appendix III
Work Order		Project Number	528472.0000.0000	B	300_W (Cl, SO4)- Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)- Appendix III
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-39R	3-1-24	850	Water	2,8	3	X	X	X	X							
2	MW-40	↓	1130	Water	2,8	3	X	X	X	X							
3	MW-41		925	Water	2,8	3	X	X	X	X							
4	MW-62		815	Water	2,8	3	X	X	X	X							
5	MW-63		1000	Water	2,8	3	X	X	X	X							
6	MW-64		1050	Water	2,8	3	X	X	X	X							
7	MW-23R		1145	Water	2,8	3	X	X	X	X							
8	MW-28D		1210	Water	2,8	3	X	X	X	X							
9	MW-42		1055	Water	2,8	3	X	X	X	X							
10	MW-43		1225	Water	2,8	3	X	X	X	X							

Sampler(s) Please Print & Sign: Brian Hillin/HMI Team

Shipment Method: Consult - Drop off

Required Turnaround Time: (Check Box) ☐ Other ______ ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date: 3-1-24	Time: 14:55	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): 3/1/24 14:55
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG CCR PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
	uvc
45092	3.2
50722	2.8

QC Package: (Check One Box Below)
☒ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

2R013 ! CF-0-1

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Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070

Chain of Custody Form

Page 2 of 4

COC ID: 312156

HS24030094 WV

TRC
WA Parish CCR Program

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211381	Project Name	WA Parish CCR Program	A	ICP_TW (B and Ca)- Appendix III
Work Order		Project Number	528472.0000.0000	B	300_W (Cl, SO4)- Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)- Appendix III
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-44	3-1-24	915	Water	2,8	3	X	X	X	X							
2	MW-46R		825	Water	2,8	3	X	X	X	X							
3	MW-47		1045	Water	2,8	3	X	X	X	X							
4	MW-48		1125	Water	2,8	3	X	X	X	X							
5	MW-50		1205	Water	2,8	3	X	X	X	X							
6	MW-52		1245	Water	2,8	3	X	X	X	X							
7	MW-54		1240	Water	2,8	3	X	X	X	X							
8	MW-55R		1220	Water	2,8	3	X	X	X	X							
9	MW-58		1005	Water	2,8	3	X	X	X	X							
10	MW-65		1300	Water	2,8	3	X	X	X	X							

Sampler(s) Please Print & Sign: Brian Hillin/HMI Team

Shipment Method: Consult. Drop off

Required Turnaround Time: (Check Box) ☐ Other ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date: 3-1-24	Time: 14:55	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): 3/1/24 14:55
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG CCR PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
☒ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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3. The Chain of Custody is a legal document. All information must be completed accurately.

Privileged and Confidential

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Holland, MI +1 616 399 6070

Chain of Custody Form

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COC ID: 312155

HS24030094

TRC
WA Parish CCR Program

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211381	Project Name	WA Parish CCR Program	A	ICP_TW (B and Ca)- Appendix III
Work Order		Project Number	528472.0000.0000	B	300_W (Cl, SO4)- Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)- Appendix III
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-36	3-1-24	1040	Water	2,8	3	X	X	X	X							
2	MW-37		825	Water	2,8	3	X	X	X	X							
3	MW-38R		905	Water	2,8	3	X	X	X	X							
4	MW-60		1120	Water	2,8	3	X	X	X	X							
5	MW-61		945	Water	2,8	3	X	X	X	X							
6	MW-58-MS		1005	Water	2,8	3	X	X	X	X							
7	MW-58-MSD		1005	Water	2,8	3	X	X	X	X							
8	MW-63-MS		1000	Water	2,8	3	X	X	X	X							
9	MW-63-MSD		1000	Water	2,8	3	X	X	X	X							
10	Field Blank-01		1000	Water	2,8	3	X	X	X	X							

Sampler(s) Please Print & Sign: Brian Hillin/AMI Team

Shipment Method: Consult. Drop off

Required Turnaround Time: (Check Box) ☐ Other ____ ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date: 3-1-24	Time: 14:55	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): 3/1/24 14:55
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG CCR PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
☒ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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3. The Chain of Custody is a legal document. All information must be completed accurately.

Chain of Custody Form

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COC ID: 312154

HS24030094 WV

TRC
WA Parish CCR Program

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211381	Project Name	WA Parish CCR Program	A	ICP_TW (B and Ca)- Appendix III
Work Order		Project Number	528472.0000.0000	B	300_W (Cl, SO4)- Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)- Appendix III
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Field Duplicate 1	3-1-24	1100	Water	2,8	3	X	X	X	X							
2	Field Duplicate 2	↓	900	Water	2,8	3	X	X	X	X							
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Brian Hillin / HMI Team

Shipment Method: Consult. Drop off

Required Turnaround Time: (Check Box) ☐ Other ____ ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date: 3-1-24	Time: 14:55	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): 3/1/24 14:55
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG CCR PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
☒ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

45092

CUSTODY SEAL

Date: 3-1-24 Time: 1400
Name: B.Hillin
Company: HMI

Seal Broken By: SM
Date: 03/01/24

45092 MAR 0 1 2024

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

50722

CUSTODY SEAL

Date: 3-1-24 Time: 1400
Name: B.Hillin
Company: HMI

Seal Broken By: SM
Date: 03/01/24

50722 MAR 0 1 2024

08-Mar-2024

Andrew Neir
ALS Environmental
10450 Stancliff Rd
Suite 210
Houston, TX 77099

Re: **HS24030094** Work Order: **24030247**

Dear Andrew,

ALS Environmental received 28 samples on 05-Mar-2024 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 41.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Chelsey Cook

Electronically approved by: Chelsey Cook

Chelsey Cook
Project Manager

Report of Laboratory Analysis

Certificate No: TX: T104704494

ALS Group, USA

Date: 08-Mar-24

Client: ALS Environmental
Project: HS24030094
Work Order: **24030247**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24030247-01	MW-39R	Water	HS24030094-01	3/1/2024 08:50	3/5/2024 10:00	☐
24030247-02	MW-40	Water	HS24030094-02	3/1/2024 11:30	3/5/2024 10:00	☐
24030247-03	MW-41	Water	HS24030094-03	3/1/2024 09:25	3/5/2024 10:00	☐
24030247-04	MW-62	Water	HS24030094-04	3/1/2024 08:15	3/5/2024 10:00	☐
24030247-05	MW-64	Water	HS24030094-06	3/1/2024 10:50	3/5/2024 10:00	☐
24030247-06	MW-23R	Water	HS24030094-07	3/1/2024 11:45	3/5/2024 10:00	☐
24030247-07	MW-28D	Water	HS24030094-08	3/1/2024 12:10	3/5/2024 10:00	☐
24030247-08	MW-42	Water	HS24030094-09	3/1/2024 10:55	3/5/2024 10:00	☐
24030247-09	MW-43	Water	HS24030094-10	3/1/2024 12:25	3/5/2024 10:00	☐
24030247-10	MW-44	Water	HS24030094-11	3/1/2024 09:15	3/5/2024 10:00	☐
24030247-11	MW-46R	Water	HS24030094-12	3/1/2024 08:25	3/5/2024 10:00	☐
24030247-12	MW-47	Water	HS24030094-13	3/1/2024 10:45	3/5/2024 10:00	☐
24030247-13	MW-48	Water	HS24030094-14	3/1/2024 11:25	3/5/2024 10:00	☐
24030247-14	MW-50	Water	HS24030094-15	3/1/2024 12:05	3/5/2024 10:00	☐
24030247-15	MW-52	Water	HS24030094-16	3/1/2024 12:45	3/5/2024 10:00	☐
24030247-16	MW-54	Water	HS24030094-17	3/1/2024 12:40	3/5/2024 10:00	☐
24030247-17	MW-55R	Water	HS24030094-18	3/1/2024 12:20	3/5/2024 10:00	☐
24030247-18	MW-58	Water	HS24030094-19	3/1/2024 10:05	3/5/2024 10:00	☐
24030247-19	MW-65	Water	HS24030094-20	3/1/2024 13:00	3/5/2024 10:00	☐
24030247-20	MW-36	Water	HS24030094-21	3/1/2024 10:40	3/5/2024 10:00	☐
24030247-21	MW-37	Water	HS24030094-22	3/1/2024 08:25	3/5/2024 10:00	☐
24030247-22	MW-38R	Water	HS24030094-23	3/1/2024 09:05	3/5/2024 10:00	☐
24030247-23	MW-60	Water	HS24030094-24	3/1/2024 11:20	3/5/2024 10:00	☐
24030247-24	MW-61	Water	HS24030094-25	3/1/2024 09:45	3/5/2024 10:00	☐
24030247-25	Field Blank-01	Water	HS24030094-26	3/1/2024 10:00	3/5/2024 10:00	☐
24030247-26	Field Duplicate-1	Water	HS24030094-27	3/1/2024 11:00	3/5/2024 10:00	☐
24030247-27	Field Duplicate-2	Water	HS24030094-28	3/1/2024 09:00	3/5/2024 10:00	☐
24030247-28	MW-63	Water	HS24030094-05	3/1/2024 10:00	3/5/2024 10:00	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR 1_240307A, TITRATOR 1_240307B	Instrument ID: TITRATOR1	
Method: FL_4500C_W	Work order Number (s): 24030241		
Analyst Name: MS	Date: 03/7/2024	Reviewer Name: QN	Date: 3/7/2024

	A[1]	Description	Yes	No	NA[2]	NR[3]	ER#[4]
R1	I	Chain-of-Custody					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?			X		
		2) Were all departures from standard conditions described in an exception report?			X		
R2	I	**SAMPLE AND QUALITY CONTROL (QC) IDENTIFICATION**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?			X		
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?			X		
R3	I	**TEST REPORTS**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			X		
		7) Was % moisture (or solids) reported for all soil and sediment samples?			X		
		8) If required for the project, TICs reported?			X		
R4	I	**SURROGATE RECOVERY DATA**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	I	**TEST REPORTS/SUMMMARY FORMS FOR BLANK SAMPLES**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < ½ MQL?	X				
R6	I	**LABORATORY CONTROL SAMPLES (LCS):**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS and LCSD %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		6) Was the LCSD RPD within QC limits?	X				
R7	I	**MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD) DATA**					
		1) Were the project or method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS and MSD %Rs within the laboratory QC limits?	X				
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	I	**ANALYTICAL DUPLICATE DATA (IF REQUIRED)**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	I	**METHOD QUANTITATION LIMITS (MQLS):**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs included in the laboratory data package?			X		
R10	I	**OTHER PROBLEMS/ANOMALIES**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Were all necessary corrective actions performed for the reported data?	X				
		3) If requested, is the justification for elevated SQLs documented?			X		

S1	I	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?			X		
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	I	**INITIAL AND CONTINUING CALIBRATION VERIFICATION (ICCV AND CCV) AND**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the organic CCB < MDL?	X				
S3	I	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?			X		
		2) Were ion abundance data within the method-required QC limits?			X		
S4	I	**INTERNAL STANDARDS (IS):**					
		Were IS area counts within the method-required QC limits?			X		
S5	I	**RAW DATA**					
		1) Were the raw data (e.g., chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	I	**DUAL COLUMN CONFIRMATION (IF REQUIRED)**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	I	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?			X		
S9	I	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	I	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S11	I	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	I	**STANDARDS DOCUMENTATION**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	I	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	I	**DEMONSTRATION OF ANALYST COMPETENCY (DOC)**					
		1) Was DOC conducted consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	I	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all the methods used to generate the data documented, verified, and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S16	I	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

1 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
2 NA = Not applicable.
3 NR = Not Reviewed.
4 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number:	

ER #[1]	DESCRIPTION
1	
2	
3	
4	
5	
6	

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

ALS Group, USA

Date: 08-Mar-24

Client: ALS Environmental
Project: HS24030094
WorkOrder: **24030247**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Analyte accreditation is not offered
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
mg/L	Milligrams per Liter

Client: ALS Environmental
Project: HS24030094
Work Order: 24030247

Case Narrative

Samples for the above noted Work Order were received on 03/05/2024. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Wet Chemistry:
No deviations or anomalies were noted.

ALS Group, USA

Date: *08-Mar-2024*

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-39R	**Lab ID:**	24030247-01
Collection Date:	3/1/2024 08:50 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	ND		0.10	mg/L	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-40	**Lab ID:**	24030247-02
Collection Date:	3/1/2024 11:30 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.100**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24030094 **Work Order:** 24030247
Sample ID: MW-41 **Lab ID:** 24030247-03
Collection Date: 3/1/2024 09:25 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.140**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-62	**Lab ID:**	24030247-04
Collection Date:	3/1/2024 08:15 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.180**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *08-Mar-2024*

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-64	**Lab ID:**	24030247-05
Collection Date:	3/1/2024 10:50 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.190**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *08-Mar-2024*

Client: ALS Environmental
Project: HS24030094 **Work Order:** 24030247
Sample ID: MW-23R **Lab ID:** 24030247-06
Collection Date: 3/1/2024 11:45 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.300**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-28D	**Lab ID:**	24030247-07
Collection Date:	3/1/2024 12:10 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.320**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-42	**Lab ID:**	24030247-08
Collection Date:	3/1/2024 10:55 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.610**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *08-Mar-2024*

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-43	**Lab ID:**	24030247-09
Collection Date:	3/1/2024 12:25 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.590**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-44	**Lab ID:**	24030247-10
Collection Date:	3/1/2024 09:15 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.470**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-46R	**Lab ID:**	24030247-11
Collection Date:	3/1/2024 08:25 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.370**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-47	**Lab ID:**	24030247-12
Collection Date:	3/1/2024 10:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.430**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *08-Mar-2024*

Client: ALS Environmental
Project: HS24030094 — **Work Order:** 24030247
Sample ID: MW-48 — **Lab ID:** 24030247-13
Collection Date: 3/1/2024 11:25 AM — **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.720**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *08-Mar-2024*

Client: ALS Environmental
Project: HS24030094 **Work Order:** 24030247
Sample ID: MW-50 **Lab ID:** 24030247-14
Collection Date: 3/1/2024 12:05 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.510**		**0.10**	**mg/L**	1	3/7/2024 11:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-52	**Lab ID:**	24030247-15
Collection Date:	3/1/2024 12:45 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.380**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24030094
Sample ID: MW-54
Collection Date: 3/1/2024 12:40 PM

Work Order: 24030247
Lab ID: 24030247-16
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.340**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-55R	**Lab ID:**	24030247-17
Collection Date:	3/1/2024 12:20 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.530**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental

Project: HS24030094 **Work Order:** 24030247

Sample ID: MW-58 **Lab ID:** 24030247-18

Collection Date: 3/1/2024 10:05 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.330**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *08-Mar-2024*

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-65	**Lab ID:**	24030247-19
Collection Date:	3/1/2024 01:00 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.250**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24030094 **Work Order:** 24030247
Sample ID: MW-36 **Lab ID:** 24030247-20
Collection Date: 3/1/2024 10:40 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.280**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-37	**Lab ID:**	24030247-21
Collection Date:	3/1/2024 08:25 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.190**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-38R	**Lab ID:**	24030247-22
Collection Date:	3/1/2024 09:05 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.180**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24030094 **Work Order:** 24030247
Sample ID: MW-60 **Lab ID:** 24030247-23
Collection Date: 3/1/2024 11:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.130**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-61	**Lab ID:**	24030247-24
Collection Date:	3/1/2024 09:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.210**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	Field Blank-01	**Lab ID:**	24030247-25
Collection Date:	3/1/2024 10:00 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	ND		0.10	mg/L	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	Field Duplicate-1	**Lab ID:**	24030247-26
Collection Date:	3/1/2024 11:00 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.280**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	Field Duplicate-2	**Lab ID:**	24030247-27
Collection Date:	3/1/2024 09:00 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.300**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24030094	**Work Order:**	24030247
Sample ID:	MW-63	**Lab ID:**	24030247-28
Collection Date:	3/1/2024 10:00 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.200**		**0.10**	**mg/L**	1	3/7/2024 03:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Client: ALS Environmental
Work Order: 24030247
Project: HS24030094

Date: 08-Mar-24

QC BATCH REPORT

Batch ID: **R397873** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R397873-R397873** Units: **mg/L** Analysis Date: **3/7/2024 11:56 AM**
Client ID: Run ID: **TITRATOR 1_240307A** SeqNo: **10541407** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	ND	0.10								

LCS Sample ID: **LCS-R397873-R397873** Units: **mg/L** Analysis Date: **3/7/2024 11:56 AM**
Client ID: Run ID: **TITRATOR 1_240307A** SeqNo: **10541408** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.77	0.10	5	0	95.4	90-111	0			

MS Sample ID: **24030241-07A MS** Units: **mg/L** Analysis Date: **3/7/2024 11:56 AM**
Client ID: Run ID: **TITRATOR 1_240307A** SeqNo: **10541410** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.1	0.10	5	0.2	98	90-111	0			

MSD Sample ID: **24030241-07A MSD** Units: **mg/L** Analysis Date: **3/7/2024 11:56 AM**
Client ID: Run ID: **TITRATOR 1_240307A** SeqNo: **10541411** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.22	0.10	5	0.2	100	90-111	5.1	2.33	20	

The following samples were analyzed in this batch:

24030247-01A	24030247-02A	24030247-03A
24030247-04A	24030247-05A	24030247-06A
24030247-07A	24030247-08A	24030247-09A
24030247-10A	24030247-11A	24030247-12A
24030247-13A	24030247-14A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental
Work Order: 24030247
Project: HS24030094

QC BATCH REPORT

Batch ID: **R397904** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK	Sample ID: **MB-R397904-R397904**				Units: **mg/L**		Analysis Date: **3/7/2024 03:18 PM**			
Client ID:		Run ID: **TITRATOR 1_240307B**			SeqNo: **10542788**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	ND	0.10								

LCS	Sample ID: **LCS-R397904-R397904**				Units: **mg/L**		Analysis Date: **3/7/2024 03:18 PM**			
Client ID:		Run ID: **TITRATOR 1_240307B**			SeqNo: **10542789**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.74	0.10	5	0	94.8	90-111	0			

MS	Sample ID: **24030247-18A MS**				Units: **mg/L**		Analysis Date: **3/7/2024 03:18 PM**			
Client ID: **MW-58**		Run ID: **TITRATOR 1_240307B**			SeqNo: **10542794**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.34	0.10	5	0.33	100	90-111	0			

MS	Sample ID: **24030247-28A MS**				Units: **mg/L**		Analysis Date: **3/7/2024 03:18 PM**			
Client ID: **MW-63**		Run ID: **TITRATOR 1_240307B**			SeqNo: **10542806**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.05	0.10	5	0.2	97	90-111	0			

MSD	Sample ID: **24030247-18A MSD**				Units: **mg/L**		Analysis Date: **3/7/2024 03:18 PM**			
Client ID: **MW-58**		Run ID: **TITRATOR 1_240307B**			SeqNo: **10542795**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.42	0.10	5	0.33	102	90-111	5.34	1.49	20	

MSD	Sample ID: **24030247-28A MSD**				Units: **mg/L**		Analysis Date: **3/7/2024 03:18 PM**			
Client ID: **MW-63**		Run ID: **TITRATOR 1_240307B**			SeqNo: **10542807**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.05	0.10	5	0.2	97	90-111	5.05	0	20	

The following samples were analyzed in this batch:

24030247-15A	24030247-16A	24030247-17A
24030247-18A	24030247-19A	24030247-20A
24030247-21A	24030247-22A	24030247-23A
24030247-24A	24030247-25A	24030247-26A
24030247-27A	24030247-28A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

24030247

ALS - HOUSTON: ALS Environmental
Project: HS24030094

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **24923**

SUBCONTRACT TO:

ALS Laboratory Group
3352 128th Ave.
Holland, MI 494249263

Phone: +1 616 399 6070

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: Andy C. Neir
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: Andrew.Neir@ALSGlobal.com
Alternate Contact: Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS24030094
TSR: Sonia West

	LAB SAMPLE ID / ANALYSIS REQUESTED	CLIENT SAMPLE ID	MATRIX	COLLECT DATE / DUE DATE
1.	**HS24030094-01**	**MW-39R**	**Water**	**01 Mar 2024 08:50**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
2.	**HS24030094-02**	**MW-40**	**Water**	**01 Mar 2024 11:30**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
3.	**HS24030094-03**	**MW-41**	**Water**	**01 Mar 2024 09:25**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
4.	**HS24030094-04**	**MW-62**	**Water**	**01 Mar 2024 08:15**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
5.	**HS24030094-05**	**MW-63**	**Water**	**01 Mar 2024 10:00**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
6.	**HS24030094-06**	**MW-64**	**Water**	**01 Mar 2024 10:50**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
7.	**HS24030094-07**	**MW-23R**	**Water**	**01 Mar 2024 11:45**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
8.	**HS24030094-08**	**MW-28D**	**Water**	**01 Mar 2024 12:10**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
9.	**HS24030094-09**	**MW-42**	**Water**	**01 Mar 2024 10:55**

24030247

ALS - HOUSTON: ALS Environmental
Project: HS24030094

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID: 24923**

	LAB SAMPLE ID / ANALYSIS REQUESTED	CLIENT SAMPLE ID	MATRIX	COLLECT DATE / DUE DATE
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
10.	**HS24030094-10**	**MW-43**	**Water**	**01 Mar 2024 12:25**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
11.	**HS24030094-11**	**MW-44**	**Water**	**01 Mar 2024 09:15**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
12.	**HS24030094-12**	**MW-46R**	**Water**	**01 Mar 2024 08:25**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
13.	**HS24030094-13**	**MW-47**	**Water**	**01 Mar 2024 10:45**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
14.	**HS24030094-14**	**MW-48**	**Water**	**01 Mar 2024 11:25**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
15.	**HS24030094-15**	**MW-50**	**Water**	**01 Mar 2024 12:05**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
16.	**HS24030094-16**	**MW-52**	**Water**	**01 Mar 2024 12:45**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
17.	**HS24030094-17**	**MW-54**	**Water**	**01 Mar 2024 12:40**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
18.	**HS24030094-18**	**MW-55R**	**Water**	**01 Mar 2024 12:20**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
19.	**HS24030094-19**	**MW-58**	**Water**	**01 Mar 2024 10:05**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
20.	**HS24030094-20**	**MW-65**	**Water**	**01 Mar 2024 13:00**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
21.	**HS24030094-21**	**MW-36**	**Water**	**01 Mar 2024 10:40**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
22.	**HS24030094-22**	**MW-37**	**Water**	**01 Mar 2024 08:25**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
23.	**HS24030094-23**	**MW-38R**	**Water**	**01 Mar 2024 09:05**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
24.	**HS24030094-24**	**MW-60**	**Water**	**01 Mar 2024 11:20**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024

24030247

ALS - HOUSTON: ALS Environmental
Project: HS24030094

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID: 24923**

	LAB SAMPLE ID / ANALYSIS REQUESTED	CLIENT SAMPLE ID	MATRIX	COLLECT DATE / DUE DATE
25.	**HS24030094-25**	**MW-61**	**Water**	**01 Mar 2024 09:45**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
26.	**HS24030094-26**	**Field Blank-01**	**Water**	**01 Mar 2024 10:00**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
27.	**HS24030094-27**	**Field Duplicate-1**	**Water**	**01 Mar 2024 11:00**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024
28.	**HS24030094-28**	**Field Duplicate-2**	**Water**	**01 Mar 2024 09:00**
	Fluoride by ISE 4500. Equis EDD			08 Mar 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.
HS24030094-05 & HS24030094-19 = MS/MSD

QC Level: TRRP LRC (TRRP checklist only+Level II (normal))

Relinquished By: ______ Date/Time: 3/4/24 1800

Received By: ______ Date/Time: 3.5.24 1000

Cooler ID(s): ______ Temperature(s): 2.9C OT2

Privileged and Confidential

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name:	**ALS - HOUSTON**	Date/Time Received:	**05-Mar-24 10:00**
Work Order:	**24030247**	Received by:	**JD**

	eSignature	Date		eSignature	Date
Checklist completed by	Jason Delinger	05-Mar-24	Reviewed by:	Chelsey Cook	06-Mar-24

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.9/2.9 C	df2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/5/2024 1:00:16 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Privileged and Confidential

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

April 04, 2024

Lori Burris
TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079

Work Order: **HS24040046**

Laboratory Results for: **WA Parish – CCR Program**

Dear Lori Burris,

ALS Environmental received 5 sample(s) on Mar 29, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish – CCR Program	
WorkOrder:	**HS24040046**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:
a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish – CCR Program	
WorkOrder:	**HS24040046**	

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _______________ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Andy C. Neir

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 04/04/2024
Project Name: WA Parish – CCR Program	Laboratory Job Number: HS24040046
Reviewer Name: Andy Neir	Prep Batch Number(s): 209817,R462889,R463018

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);NA = Not Applicable; NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 04/04/2024				
Project Name: WA Parish – CCR Program			Laboratory Job Number: HS24040046				
Reviewer Name: Andy Neir			Prep Batch Number(s): 209817,R462889,R463018				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			2
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
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Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 04/04/2024
Project Name: WA Parish – CCR Program	Laboratory Job Number: HS24040046
Reviewer Name: Andy Neir	Prep Batch Number(s): 209817,R462889,R463018

ER#[5]	Description
1	Batch 209817, Metals Method SW6020, sample HS24040061-22, MS and MSD were performed on unrelated sample Batch R462889, Anions Method E300, sample HS24040100-01, MS and MSD were performed on unrelated sample
2	See Run Log and CCB Exceptions Report.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046
Start Date: 03-Apr-2024 End Date: 03-Apr-2024

Run ID:ICPMS05_462917
Instrument:ICPMS05
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	03-Apr-2024 11:08	022_ICV.d	B CA
LLICV2	1	03-Apr-2024 11:12	024LCV2.d	B
LLICV5	1	03-Apr-2024 11:14	025LCV5.d	B
ICB	1	03-Apr-2024 11:18	027_ICB.d	B CA
ICSA	1	03-Apr-2024 11:22	029ICSA.d	B
ICSAB	1	03-Apr-2024 11:24	030ICSB.d	B
CCV 1	1	03-Apr-2024 11:44	034_CCV.d	B CA
CCB 1	1	03-Apr-2024 11:46	035_CCB.d	B CA
CCV 2	1	03-Apr-2024 11:48	036_CCV.d	B CA
CCB 2	1	03-Apr-2024 11:50	037_CCB.d	B CA
MBLK-209817	1	03-Apr-2024 11:56	039SMPL.d	B CA
LCS-209817	1	03-Apr-2024 12:02	042SMPL.d	B CA
CCV 3	1	03-Apr-2024 12:19	048_CCV.d	B CA
CCB 3	1	03-Apr-2024 12:21	049_CCB.d	B CA
CCV 4	1	03-Apr-2024 12:58	060_CCV.d	B CA
CCB 4	1	03-Apr-2024 13:00	061_CCB.d	B CA
CCV 5	1	03-Apr-2024 13:24	072_CCV.d	B CA
CCB 5	1	03-Apr-2024 13:26	073_CCB.d	B CA
ZZZZZZSD	5	03-Apr-2024 13:32	075SMPL.d	
ZZZZZZMSD	1	03-Apr-2024 13:36	077SMPL.d	B CA
ZZZZZZPDS	1	03-Apr-2024 13:38	078SMPL.d	B CA
CCV 6	1	03-Apr-2024 13:50	084_CCV.d	B CA
CCB 6	1	03-Apr-2024 13:52	085_CCB.d	B CA
MW-63	1	03-Apr-2024 13:58	087SMPL.d	B
MW-37	1	03-Apr-2024 14:00	088SMPL.d	B
MW-38R	1	03-Apr-2024 14:02	089SMPL.d	B
CCV 7	1	03-Apr-2024 14:38	096_CCV.d	B CA
CCB 7	1	03-Apr-2024 14:40	097_CCB.d	B CA
CCB 8	1	03-Apr-2024 14:46	098_CCB.d	B CA
CCV 8	1	03-Apr-2024 14:48	099_CCV.d	B CA
CCV 9	1	03-Apr-2024 14:56	103_CCV.d	B CA
CCB 9	1	03-Apr-2024 14:58	104_CCB.d	B CA
CCV 10	1	03-Apr-2024 15:26	115_CCV_040324A.D	B CA
CCB 10	1	03-Apr-2024 15:28	116_CCB_040324A.D	B CA

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046

Run ID:ICPMS05_462917
Instrument:ICPMS05
Method:SW6020A

CCB 1 Date: 03-Apr-2024 11:46 Seq: 7924205 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Calcium	41.56	34	500

CCB 2 Date: 03-Apr-2024 11:50 Seq: 7924207 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	13.84	11	20
Calcium	34.89	34	500

CCB 3 Date: 03-Apr-2024 12:21 Seq: 7924217 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.55	11	20

CCB 4 Date: 03-Apr-2024 13:00 Seq: 7924408 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.57	11	20

CCB 5 Date: 03-Apr-2024 13:26 Seq: 7924420 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.17	11	20

CCB 6 Date: 03-Apr-2024 13:52 Seq: 7924951 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	12.75	11	20

CCB 7 Date: 03-Apr-2024 14:40 Seq: 7924963 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.25	11	20

CCB 9 Date: 03-Apr-2024 14:58 Seq: 7924985 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.08	11	20

Client: TRC
Project: WA Parish – CCR Program
Work Order: HS24040046

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24040046-01	MW-63	Water		29-Mar-2024 08:20	29-Mar-2024 10:50	☐
HS24040046-02	MW-37	Water		29-Mar-2024 10:05	29-Mar-2024 10:50	☐
HS24040046-03	MW-38R	Water		29-Mar-2024 09:25	29-Mar-2024 10:50	☐
HS24040046-04	MW-61	Water		29-Mar-2024 08:40	29-Mar-2024 10:50	☐
HS24040046-05	MW-23R	Water		29-Mar-2024 08:40	29-Mar-2024 10:50	☐

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish – CCR Program		WorkOrder:HS24040046
Sample ID:	MW-63		Lab ID:HS24040046-01
Collection Date:	29-Mar-2024 08:20		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 02-Apr-2024		Analyst: MSC
Boron	**0.438**		**0.0110**	**0.0200**	**mg/L**	1	03-Apr-2024 13:58
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**364**		**1.00**	**2.50**	**mg/L**	5	02-Apr-2024 10:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish – CCR Program		WorkOrder:HS24040046
Sample ID:	MW-37		Lab ID:HS24040046-02
Collection Date:	29-Mar-2024 10:05		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 02-Apr-2024		Analyst: MSC
Boron	**0.404**		**0.0110**	**0.0200**	**mg/L**	1	03-Apr-2024 14:00
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,140**		**4.00**	**10.0**	**mg/L**	20	02-Apr-2024 10:27
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,980**		**5.00**	**10.0**	**mg/L**	1	03-Apr-2024 11:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish – CCR Program	WorkOrder:	HS24040046
Sample ID:	MW-38R	Lab ID:	HS24040046-03
Collection Date:	29-Mar-2024 09:25	Matrix:	Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 02-Apr-2024		Analyst: MSC
Boron	**0.344**		**0.0110**	**0.0200**	**mg/L**	1	03-Apr-2024 14:02
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**657**		**4.00**	**10.0**	**mg/L**	20	02-Apr-2024 11:20
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,460**		**5.00**	**10.0**	**mg/L**	1	03-Apr-2024 11:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish – CCR Program		WorkOrder:HS24040046
Sample ID:	MW-61		Lab ID:HS24040046-04
Collection Date:	29-Mar-2024 08:40		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 02-Apr-2024		Analyst: MSC
Boron	**5.24**		**1.10**	**2.00**	**mg/L**	100	03-Apr-2024 18:37
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,140**		**4.00**	**10.0**	**mg/L**	20	02-Apr-2024 10:39
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,730**		**5.00**	**10.0**	**mg/L**	1	03-Apr-2024 11:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish – CCR Program		WorkOrder:HS24040046
Sample ID:	MW-23R		Lab ID:HS24040046-05
Collection Date:	29-Mar-2024 08:40		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 02-Apr-2024		Analyst: MSC
Calcium	**500**		**3.40**	**50.0**	**mg/L**	100	03-Apr-2024 18:39
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,430**		**4.00**	**10.0**	**mg/L**	20	02-Apr-2024 10:45
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**3,940**		**5.00**	**10.0**	**mg/L**	1	03-Apr-2024 11:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Privileged and Confidential

Weight / Prep Log

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046

Batch ID: 209817 **Start Date:** 02 Apr 2024 14:00 **End Date:** 02 Apr 2024 14:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24040046-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24040046-02		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24040046-03		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24040046-04		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24040046-05		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 209817 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24040046-01	MW-63	29 Mar 2024 08:20		02 Apr 2024 14:00	03 Apr 2024 13:58	1
HS24040046-02	MW-37	29 Mar 2024 10:05		02 Apr 2024 14:00	03 Apr 2024 14:00	1
HS24040046-03	MW-38R	29 Mar 2024 09:25		02 Apr 2024 14:00	03 Apr 2024 14:02	1
HS24040046-04	MW-61	29 Mar 2024 08:40		02 Apr 2024 14:00	03 Apr 2024 18:37	100
HS24040046-05	MW-23R	29 Mar 2024 08:40		02 Apr 2024 14:00	03 Apr 2024 18:39	100
Batch ID: R462889 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24040046-01	MW-63	29 Mar 2024 08:20			02 Apr 2024 10:21	5
HS24040046-02	MW-37	29 Mar 2024 10:05			02 Apr 2024 10:27	20
HS24040046-03	MW-38R	29 Mar 2024 09:25			02 Apr 2024 11:20	20
HS24040046-04	MW-61	29 Mar 2024 08:40			02 Apr 2024 10:39	20
HS24040046-05	MW-23R	29 Mar 2024 08:40			02 Apr 2024 10:45	20
Batch ID: R463018 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24040046-02	MW-37	29 Mar 2024 10:05			03 Apr 2024 11:00	1
HS24040046-03	MW-38R	29 Mar 2024 09:25			03 Apr 2024 11:00	1
HS24040046-04	MW-61	29 Mar 2024 08:40			03 Apr 2024 11:00	1
HS24040046-05	MW-23R	29 Mar 2024 08:40			03 Apr 2024 11:00	1

WorkOrder:	HS24040046
InstrumentID:	ICPMS05
Test Code:	ICP_TW
Test Number:	SW6020A
Test Name:	ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0500	0.0488	0.0110	0.0200

WorkOrder:	HS24040046
InstrumentID:	ICPMS06
Test Code:	ICP_TW
Test Number:	SW6020A
Test Name:	ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0125	0.00864	0.0110	0.0200
A	Calcium	7440-70-2	0.0500	0.0677	0.0340	0.500

WorkOrder:	HS24040046
InstrumentID:	ICS-Integrion
Test Code:	300_W
Test Number:	E300
Test Name:	Anions by E300.0, Rev 2.1, 1993

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Sulfate	14808-79-8	0.250	0.371	0.200	0.500

WorkOrder:	HS24040046
InstrumentID:	Balance1
Test Code:	TDS_W 2540C
Test Number:	M2540C
Test Name:	Total Dissolved Solids by SM2540C

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Total Dissolved Solids (Residue, Filterable)	TDS	5.00	0.00100	5.00	10.0

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046

QC BATCH REPORT

Batch ID: 209817 (0) **Instrument:** ICPMS05 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-209817** Units: **mg/L** Analysis Date: **03-Apr-2024 11:56**
Client ID: Run ID: **ICPMS05_462917** SeqNo: **7924209** PrepDate: **02-Apr-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	< 0.0110	0.0200								
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-209817** Units: **mg/L** Analysis Date: **03-Apr-2024 12:02**
Client ID: Run ID: **ICPMS05_462917** SeqNo: **7924210** PrepDate: **02-Apr-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4275	0.0200	0.5	0	85.5	80 - 120				
Calcium	4.722	0.500	5	0	94.4	80 - 120				

MS Sample ID: **HS24040061-22MS** Units: **mg/L** Analysis Date: **03-Apr-2024 21:13**
Client ID: Run ID: **ICPMS05_462982** SeqNo: **7926087** PrepDate: **02-Apr-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4787	0.0200	0.5	0.03765	88.2	80 - 120				
Calcium	113.1	0.500	5	113.6	-9.92	80 - 120				SO

MSD Sample ID: **HS24040061-22MSD** Units: **mg/L** Analysis Date: **03-Apr-2024 13:36**
Client ID: Run ID: **ICPMS05_462917** SeqNo: **7924424** PrepDate: **02-Apr-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4812	0.0200	0.5	0.03765	88.7	80 - 120	0.4787	0.517	20	
Calcium	113.3	0.500	5	113.6	-5.74	80 - 120	113.1	0.185	20	SO

PDS Sample ID: **HS24040061-22PDS** Units: **mg/L** Analysis Date: **03-Apr-2024 13:38**
Client ID: Run ID: **ICPMS05_462917** SeqNo: **7924427** PrepDate: **02-Apr-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.1359	0.0200	0.1	0.03765	98.3	75 - 125				
Calcium	118.8	0.500	10	113.6	52.5	75 - 125				SO

Client:	TRC	**QC BATCH REPORT**
Project:	WA Parish – CCR Program	
WorkOrder:	HS24040046	

Batch ID: 209817 (0) **Instrument:** ICPMS05 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24040061-22SD** Units: **mg/L** Analysis Date: **04-Apr-2024 14:05**

Client ID: Run ID: **ICPMS05_463053** SeqNo: **7927743** PrepDate: **02-Apr-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.0846	0.100					0.03765	0	10	J
Calcium	115.8	2.50					113.6	1.94	10	

The following samples were analyzed in this batch:

HS24040046-01	HS24040046-02	HS24040046-03	HS24040046-04
HS24040046-05			

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046

QC BATCH REPORT

Batch ID: R462889 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **02-Apr-2024 11:56**
Client ID: Run ID: **ICS-Integrion_462889** SeqNo: **7923441** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **02-Apr-2024 12:08**
Client ID: Run ID: **ICS-Integrion_462889** SeqNo: **7923442** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	18.16	0.500	20	0	90.8	90 - 110				

MS Sample ID: **HS24040100-01MS** Units: **mg/L** Analysis Date: **02-Apr-2024 13:51**
Client ID: Run ID: **ICS-Integrion_462889** SeqNo: **7923454** PrepDate: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	104.8	2.50	50	68.85	71.8	80 - 120				S

MS Sample ID: **HS24040060-01MS** Units: **mg/L** Analysis Date: **02-Apr-2024 15:51**
Client ID: Run ID: **ICS-Integrion_462889** SeqNo: **7923466** PrepDate: DF: **500**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	5164	250	5000	1130	80.7	80 - 120				

MSD Sample ID: **HS24040100-01MSD** Units: **mg/L** Analysis Date: **02-Apr-2024 13:57**
Client ID: Run ID: **ICS-Integrion_462889** SeqNo: **7923455** PrepDate: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	106.1	2.50	50	68.85	74.5	80 - 120	104.8	1.25	20	S

MSD Sample ID: **HS24040060-01MSD** Units: **mg/L** Analysis Date: **02-Apr-2024 15:57**
Client ID: Run ID: **ICS-Integrion_462889** SeqNo: **7923467** PrepDate: DF: **500**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	5185	250	5000	1130	81.1	80 - 120	5164	0.405	20	

The following samples were analyzed in this batch:

HS24040046-01	HS24040046-02	HS24040046-03	HS24040046-04
HS24040046-05			

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046

QC BATCH REPORT

Batch ID: R463018 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-04032024** Units: **mg/L** Analysis Date: **03-Apr-2024 11:00**
Client ID: Run ID: **Balance1_463018** SeqNo: **7926689** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-04032024** Units: **mg/L** Analysis Date: **03-Apr-2024 11:00**
Client ID: Run ID: **Balance1_463018** SeqNo: **7926688** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	930	10.0	1000	0	93.0	85 - 115				

DUP Sample ID: **HS24040046-04 DUP** Units: **mg/L** Analysis Date: **03-Apr-2024 11:00**
Client ID: **MW-61** Run ID: **Balance1_463018** SeqNo: **7926683** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1752	10.0					1728	1.38	20	

The following samples were analyzed in this batch: HS24040046-02 HS24040046-03 HS24040046-04 HS24040046-05

Client: TRC
Project: WA Parish – CCR Program
WorkOrder: HS24040046

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
California	2919; 2024	30-Apr-2024
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

Sample Receipt Checklist

Work Order ID:	HS24040046	**Date/Time Received:**	**29-Mar-2024 10:50**
Client Name:	TRC-HOU	**Received by:**	**Monica Smith**

Completed By:	*/S/ Michael Lucio*	01-Apr-2024 15:30	**Reviewed by:** */S/ Andy C. Neir*	02-Apr-2024 16:21
	eSignature	Date/Time	eSignature	Date/Time

Matrices: **w** Carrier name: **ALS Courier**

	Yes	No	
Shipping container/cooler in good condition?	☑	☐	Not Present ☐
Custody seals intact on shipping container/cooler?	☑	☐	Not Present ☐
Custody seals intact on sample bottles?	☐	☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☐	Not Present ☑
Chain of custody present?	☑	☐	1 Page(s)
Chain of custody signed when relinquished and received?	☑	☐	COC IDs:313724
Samplers name present on COC?	☑	☐	
Chain of custody agrees with sample labels?	☐	☑	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Temperature(s)/Thermometer(s):	2.6uc/3.0c		IR33
Cooler(s)/Kit(s):	46986		
Date/Time sample(s) sent to storage:	04/01/2024 15:32		
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☐	☐	N/A ☑
pH adjusted?	☐	☐	N/A ☑
pH adjusted by:			

Login Notes: COC states 1 bottle for sample MW-23R but we received 2.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 313724

HS24040046

TRC

NRG WA Parish - State Program

ALS Project Manager:

Customer Information		Project Information			Analyses
Purchase Order	211381	Project Name	NRG Parish - CCR Re-Sample	A	300_W (SO4)
Work Order		Project Number		B	TDS_W 2540C (TDS)
Company Name	TRC Corporation	Bill To Company	TRC	C	ICP_TW (Boron)
Send Report To	Lori Burris	Invoice Attn	A/P	D	ICP_TW (Calcium)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-63	3-29-24	820	Water	2,8	2	X		X								
2	MW-37	↓	1005	Water	2,8	2	X	X	X								
3	MW-38R		925	Water	2,8	2	X	X	X								
4	MW-61		840	Water	2,8	2	X	X	X								
5	MW-23R		840	Water	2,8	1	X	X		X							
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Brian Hillin / HMI Team

Shipment Method: Drop off @ lab

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date: 3-29-24	Time: 1058	Received by:
Relinquished by:	Date: 3-29-24	Time: 1058	Received by (Laboratory): (MS)
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG WA Parish - ~~State~~ CCR Program

Cooler ID	Cooler Temp.
46986	2.6

QC Package: (Check One Box Below) ☐ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other ☒ TRRP Checklist ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

SF 2+.4

TR#32

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 3-29-24 Time: 1050
Name: B. Hillin
Company: HMI

Seal Broken By: [signature]
Date: 4/1/24

Appendix B
Detection Monitoring Data (September 2024)

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

September 11, 2024

Lori Burris
TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079

Work Order: **HS24081709**

Laboratory Results for: **WA Parish CCR Program**

Dear Lori Burris,

ALS Environmental received 28 sample(s) on Aug 28, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program	
WorkOrder:	**HS24081709**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:
a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: TRC
Project: WA Parish CCR Program
WorkOrder: **HS24081709**

TRRP Laboratory Data Package Cover Page

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _______________ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Andy C. Neir

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group	LRC Date: 09/11/2024
Project Name: WA Parish CCR Program	Laboratory Job Number: HS24081709
Reviewer Name: Andy Neir	Prep Batch Number(s): 217001,217006,R475883,R476002,R476003,R476005,R475044,R476046,R476185,R476692

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				2
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);NA = Not Applicable; NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 09/11/2024				
Project Name: WA Parish CCR Program			Laboratory Job Number: HS24081709				
Reviewer Name: Andy Neir			Prep Batch Number(s): 217001,217006,R475883,R476002,R476003,R476005,R475044,R476046,R476185,R476692				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			3
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable; NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 09/11/2024
Project Name: WA Parish CCR Program	Laboratory Job Number: HS24081709
Reviewer Name: Andy Neir	Prep Batch Number(s): 217001,217006,R475883,R476002,R476003,R476005,R475044, R476046,R476185,R476692

ER#[5]	Description
1	Batch 217001, Metals Method SW6020, sample MW-63, MS and MSD recovered outside the control limit for Calcium, however, the report in the parent sample is 4x greater than the spike amount. Batch 217006, Metals Method SW6020, sample MW-28, MSD recovered outside the control limit for Calcium, however, the result in the parent sample is 4x greater than the spike amount Batch R476044, Anions Method E300, sample HS24081857-02, MS and MSD were performed on unrelated sample Batch R476185, Anions Method E300, sample HS24081922-09, MS and MSD were performed on unrelated sample
2	The analysis for Fluoride was subcontracted to ALS Environmental in Holland, Report is attached to the final report. Report and Laboratory Review Checklist are attached to the final report
3	See Run Log and CCB Exceptions Report.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709
Start Date: 04-Sep-2024 End Date: 04-Sep-2024

Run ID:ICPMS05_476204
Instrument:ICPMS05
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	04-Sep-2024 09:55	018_ICV.d	B CA
ICV	1	04-Sep-2024 10:00	020_ICV.d	B CA
LLICV2	1	04-Sep-2024 10:05	022LCV2.d	B CA
LLICV5	1	04-Sep-2024 10:07	023LCV5.d	B CA
ICB	1	04-Sep-2024 10:12	025_ICB.d	B CA
ICSA	1	04-Sep-2024 10:14	026ICSA.d	B CA
ICSAB	1	04-Sep-2024 10:17	027ICSB.d	B CA
CCV 1	1	04-Sep-2024 10:26	030_CCV.d	B CA
CCB 1	1	04-Sep-2024 10:28	031_CCB.d	B CA
MBLK-217006	1	04-Sep-2024 10:38	035SMPL.d	B CA
LCS-217006	1	04-Sep-2024 10:45	038SMPL.d	B CA
CCV 2	1	04-Sep-2024 10:54	042_CCV.d	B CA
CCB 2	1	04-Sep-2024 10:56	043_CCB.d	B CA
MW-58	1	04-Sep-2024 10:59	044SMPL.d	B CA
MW-58SD	5	04-Sep-2024 11:01	045SMPL.d	B CA
MW-58MS	1	04-Sep-2024 11:03	046SMPL.d	B CA
MW-58MSD	1	04-Sep-2024 11:06	047SMPL.d	B CA
MW-58PDS	1	04-Sep-2024 11:08	048SMPL.d	B CA
CCB 3	1	04-Sep-2024 11:32	054_CCB.d	B CA
CCV 3	1	04-Sep-2024 11:34	055_CCV.d	B CA
Field Duplicate 1	1	04-Sep-2024 11:53	063SMPL.d	B
Field Duplicate 2	1	04-Sep-2024 11:55	064SMPL.d	B CA
CCV 4	1	04-Sep-2024 12:00	066_CCV.d	B CA
CCB 4	1	04-Sep-2024 12:02	067_CCB.d	B CA
MW-37	1	04-Sep-2024 12:05	068SMPL.d	B
MW-38R	1	04-Sep-2024 12:07	069SMPL.d	B
MW-60	1	04-Sep-2024 12:09	070SMPL.d	B
Field Blank 1	1	04-Sep-2024 12:14	072SMPL.d	B CA
CCV 5	1	04-Sep-2024 12:28	078_CCV.d	B CA
CCB 5	1	04-Sep-2024 12:30	079_CCB.d	B CA
MW-61	20	04-Sep-2024 12:46	085SMPL.d	B CA
MW-37	100	04-Sep-2024 12:49	086SMPL.d	CA
MW-38R	100	04-Sep-2024 12:51	087SMPL.d	CA
MW-60	100	04-Sep-2024 12:54	088SMPL.d	CA
CCV 6	1	04-Sep-2024 12:58	090_CCV.d	B CA
CCB 6	1	04-Sep-2024 13:01	091_CCB.d	B CA
CCB 7	1	04-Sep-2024 13:29	103_CCB.d	B CA
CCV 7	1	04-Sep-2024 13:31	104_CCV.d	B CA
CCB 8	1	04-Sep-2024 13:59	116_CCB.d	B CA
CCV 8	1	04-Sep-2024 14:02	117_CCV.d	B CA
Field Duplicate 1	100	04-Sep-2024 14:22	126SMPL.d	CA
CCB 9	1	04-Sep-2024 14:29	129_CCB.d	B CA
CCV 9	1	04-Sep-2024 14:32	130_CCV.d	B CA
ICCV 10	1	04-Sep-2024 15:18	146_ICV.d	B CA
LLCCV2	1	04-Sep-2024 15:23	148LCV2.d	B CA
LLCCV5	1	04-Sep-2024 15:25	149LCV5.d	B CA
ICCB 10	1	04-Sep-2024 15:30	151_ICB.d	B CA
CCB 11	1	04-Sep-2024 15:38	154_CCB.d	B CA
CCV 11	1	04-Sep-2024 15:40	155_CCV.d	B CA
CCV 12	1	04-Sep-2024 16:06	166_CCV.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709
Start Date: 04-Sep-2024 End Date: 04-Sep-2024

Run ID:ICPMS05_476204
Instrument:ICPMS05
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCB 12	1	04-Sep-2024 16:08	167_CCB.d	B CA
CCV 13	1	04-Sep-2024 16:35	178_CCV.d	B CA
CCB 13	1	04-Sep-2024 16:37	179_CCB.d	B CA
CCV 14	1	04-Sep-2024 17:04	190_CCV.d	B CA
CCB 14	1	04-Sep-2024 17:07	191_CCB.d	B CA
CCV 15	1	04-Sep-2024 17:32	202_CCV.d	B CA
CCB 15	1	04-Sep-2024 17:34	203_CCB.d	B CA
CCV 16	1	04-Sep-2024 18:00	214_CCV.d	B CA
CCB 16	1	04-Sep-2024 18:02	215_CCB.d	B CA
CCV 17	1	04-Sep-2024 19:08	219_CCV.d	B CA
CCB 17	1	04-Sep-2024 19:11	220_CCB.d	B CA
CCV 18	1	04-Sep-2024 19:36	231_CCV.d	B CA
CCB 18	1	04-Sep-2024 19:39	232_CCB.d	B CA
CCB 19	1	04-Sep-2024 20:07	244_CCB.d	B CA
CCV 19	1	04-Sep-2024 20:17	248_CCV.d	B CA
CCV 20	1	04-Sep-2024 20:27	252_CCV.d	B CA
CCB 20	1	04-Sep-2024 20:30	253_CCB.d	B CA
CCV 21	1	04-Sep-2024 20:51	262_CCV.d	B CA
CCB 21	1	04-Sep-2024 20:53	263_CCB.d	B CA
CCB 22	1	04-Sep-2024 21:23	275_CCB.d	B CA
CCV 22	1	04-Sep-2024 21:32	277_CCV.d	B CA
CCV 23	1	04-Sep-2024 21:45	280_CCV.d	B CA
CCB 23	1	04-Sep-2024 21:48	281_CCB.d	B CA
CCV 24	1	04-Sep-2024 22:09	290_CCV.d	B CA
CCB 24	1	04-Sep-2024 22:11	291_CCB.d	B CA
CCV 25	1	04-Sep-2024 22:34	301_CCV.d	B CA
CCB 25	1	04-Sep-2024 22:37	302_CCB.d	B CA
CCV 26	1	04-Sep-2024 22:55	310_CCV.d	B CA
CCB 26	1	04-Sep-2024 22:58	311_CCB.d	B CA
CCV 27	1	04-Sep-2024 23:19	320_CCV.d	B CA
CCB 27	1	04-Sep-2024 23:21	321_CCB.d	B CA
CCV 28	1	04-Sep-2024 23:43	330_CCV.d	B CA
CCB 28	1	04-Sep-2024 23:46	331_CCB.d	B CA
LLICV2	1	04-Sep-2024 23:48	332LCV2.d	B CA
LLICV5	1	04-Sep-2024 23:51	333LCV5.d	B CA
ICSA	1	04-Sep-2024 23:56	335ICSA.d	B CA
ICSAB	1	04-Sep-2024 23:58	336ICSB.d	B CA

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

Run ID:ICPMS05_476204
Instrument:ICPMS05
Method:SW6020A

CCB	Date	Seq	D/F	Units
CCB 2	04-Sep-2024 10:56	8226647	1	ug/L

Analyte	Result	MDL	Report Limit
Calcium	-38.8	34	500

CCB	Date	Seq	D/F	Units
CCB 5	04-Sep-2024 12:30	8227183	1	ug/L

Analyte	Result	MDL	Report Limit
Calcium	-44.46	34	500

CCB	Date	Seq	D/F	Units
CCB 6	04-Sep-2024 13:01	8227181	1	ug/L

Analyte	Result	MDL	Report Limit
Calcium	-51.19	34	500

CCB	Date	Seq	D/F	Units
CCB 7	04-Sep-2024 13:29	8227370	1	ug/L

Analyte	Result	MDL	Report Limit
Calcium	-51.75	34	500

CCB	Date	Seq	D/F	Units
CCB 8	04-Sep-2024 13:59	8227383	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	16.2	11	20

CCB	Date	Seq	D/F	Units
CCB 9	04-Sep-2024 14:29	8227518	1	ug/L

Analyte	Result	MDL	Report Limit
Calcium	-55.48	34	500

CCB	Date	Seq	D/F	Units
CCB 22	04-Sep-2024 21:23	8228699	1	ug/L

Analyte	Result	MDL	Report Limit
Calcium	59.43	34	500

Client: TRC
Project: WA Parish CCR Program
Work Order: HS24081709

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24081709-01	MW-39R	Water		28-Aug-2024 08:45	28-Aug-2024 14:05	☐
HS24081709-02	MW-40	Water		28-Aug-2024 11:20	28-Aug-2024 14:05	☐
HS24081709-03	MW-41	Water		28-Aug-2024 10:10	28-Aug-2024 14:05	☐
HS24081709-04	MW-62	Water		28-Aug-2024 08:05	28-Aug-2024 14:05	☐
HS24081709-05	MW-63	Water		28-Aug-2024 09:20	28-Aug-2024 14:05	☐
HS24081709-06	MW-64	Water		28-Aug-2024 10:45	28-Aug-2024 14:05	☐
HS24081709-07	MW-23R	Water		28-Aug-2024 12:05	28-Aug-2024 14:05	☐
HS24081709-08	MW-28D	Water		28-Aug-2024 10:00	28-Aug-2024 14:05	☐
HS24081709-09	MW-42	Water		28-Aug-2024 12:30	28-Aug-2024 14:05	☐
HS24081709-10	MW-43	Water		28-Aug-2024 12:50	28-Aug-2024 14:05	☐
HS24081709-11	MW-44	Water		28-Aug-2024 12:30	28-Aug-2024 14:05	☐
HS24081709-12	MW-46R	Water		28-Aug-2024 11:55	28-Aug-2024 14:05	☐
HS24081709-13	MW-47	Water		28-Aug-2024 11:20	28-Aug-2024 14:05	☐
HS24081709-14	MW-48	Water		28-Aug-2024 10:40	28-Aug-2024 14:05	☐
HS24081709-15	MW-50	Water		28-Aug-2024 12:00	28-Aug-2024 14:05	☐
HS24081709-16	MW-52	Water		28-Aug-2024 12:40	28-Aug-2024 14:05	☐
HS24081709-17	MW-54	Water		28-Aug-2024 08:25	28-Aug-2024 14:05	☐
HS24081709-18	MW-55R	Water		28-Aug-2024 09:15	28-Aug-2024 14:05	☐
HS24081709-19	MW-58	Water		28-Aug-2024 11:40	28-Aug-2024 14:05	☐
HS24081709-20	MW-65	Water		28-Aug-2024 09:55	28-Aug-2024 14:05	☐
HS24081709-21	MW-36	Water		28-Aug-2024 08:55	28-Aug-2024 14:05	☐
HS24081709-22	MW-37	Water		28-Aug-2024 10:35	28-Aug-2024 14:05	☐
HS24081709-23	MW-38R	Water		28-Aug-2024 11:15	28-Aug-2024 14:05	☐
HS24081709-24	MW-60	Water		28-Aug-2024 08:15	28-Aug-2024 14:05	☐
HS24081709-25	MW-61	Water		28-Aug-2024 09:45	28-Aug-2024 14:05	☐
HS24081709-26	Field Blank 1	Water		28-Aug-2024 10:00	28-Aug-2024 14:05	☐

Client: TRC
Project: WA Parish CCR Program
Work Order: HS24081709

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24081709-27	Field Duplicate 1	Water		28-Aug-2024 11:00	28-Aug-2024 14:05	☐
HS24081709-28	Field Duplicate 2	Water		28-Aug-2024 11:10	28-Aug-2024 14:05	☐

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-39R		Lab ID:HS24081709-01
Collection Date:	28-Aug-2024 08:45		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.190**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:12
Calcium	**204**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:00
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**342**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:03
Sulfate	**351**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:03
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,140**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-40		Lab ID:HS24081709-02
Collection Date:	28-Aug-2024 11:20		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.0846**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:14
Calcium	**309**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:02
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**585**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:09
Sulfate	**89.6**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:09
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,490**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-41		Lab ID:HS24081709-03
Collection Date:	28-Aug-2024 10:10		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.0644**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:16
Calcium	**211**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:03
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**564**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:44
Sulfate	**27.6**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:44
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,400**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-62		Lab ID:HS24081709-04
Collection Date:	28-Aug-2024 08:05		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.0751**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:18
Calcium	**213**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:05
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**467**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:50
Sulfate	**271**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:50
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,300**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Privileged and Confidential

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-63		Lab ID:HS24081709-05
Collection Date:	28-Aug-2024 09:20		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.267**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 14:53
Calcium	**257**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 17:43
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**208**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 10:45
Sulfate	**571**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 10:45
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,220**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program	WorkOrder:	HS24081709
Sample ID:	MW-64	Lab ID:	HS24081709-06
Collection Date:	28-Aug-2024 10:45	Matrix:	Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.0898**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:20
Calcium	**316**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:07
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**623**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:55
Sulfate	**22.9**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 11:55
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,680**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program	WorkOrder:	HS24081709
Sample ID:	MW-23R	Lab ID:	HS24081709-07
Collection Date:	28-Aug-2024 12:05	Matrix:	Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.256**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:22
Calcium	**583**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:09
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**2,000**		**4.00**	**10.0**	**mg/L**	20	30-Aug-2024 12:01
Sulfate	**1,620**		**4.00**	**10.0**	**mg/L**	20	30-Aug-2024 12:01
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**2,800**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-28D		Lab ID:HS24081709-08
Collection Date:	28-Aug-2024 10:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.133**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:24
Calcium	**151**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:24
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**200**		**1.00**	**2.50**	**mg/L**	5	30-Aug-2024 12:13
Sulfate	**94.1**		**1.00**	**2.50**	**mg/L**	5	30-Aug-2024 12:13
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**768**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24081709
Sample ID:	MW-42	Lab ID:HS24081709-09
Collection Date:	28-Aug-2024 12:30	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.488**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:26
Calcium	**158**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:26
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**336**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 12:19
Sulfate	**648**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 12:19
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,480**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-43		Lab ID:HS24081709-10
Collection Date:	28-Aug-2024 12:50		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.325**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:28
Calcium	**85.4**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:28
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**245**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 12:30
Sulfate	**78.1**		**0.200**	**0.500**	**mg/L**	1	30-Aug-2024 12:24
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**748**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-44		Lab ID:HS24081709-11
Collection Date:	28-Aug-2024 12:30		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.174**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:47
Calcium	**97.4**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:47
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**226**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 12:42
Sulfate	**97.2**		**0.200**	**0.500**	**mg/L**	1	30-Aug-2024 12:36
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**732**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-46R		Lab ID:HS24081709-12
Collection Date:	28-Aug-2024 11:55		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.154**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:49
Calcium	**108**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:49
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**187**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 13:23
Sulfate	**98.4**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 13:23
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**688**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-47		Lab ID:HS24081709-13
Collection Date:	28-Aug-2024 11:20		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.222**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:51
Calcium	**122**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:51
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**322**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 15:54
Sulfate	**83.9**		**0.200**	**0.500**	**mg/L**	1	30-Aug-2024 15:49
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**800**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-48		Lab ID:HS24081709-14
Collection Date:	28-Aug-2024 10:40		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.507**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:53
Calcium	**73.6**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:53
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**427**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 16:41
Sulfate	**80.8**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 16:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**988**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-50		Lab ID:HS24081709-15
Collection Date:	28-Aug-2024 12:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.234**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:55
Calcium	**135**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:55
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**440**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 16:53
Sulfate	**128**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 16:53
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,070**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-52		Lab ID:HS24081709-16
Collection Date:	28-Aug-2024 12:40		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.322**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:57
Calcium	**251**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:11
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**553**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 17:04
Sulfate	**449**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 17:04
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,080**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-54		Lab ID:HS24081709-17
Collection Date:	28-Aug-2024 08:25		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.240**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 15:59
Calcium	**106**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 15:59
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**282**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 17:16
Sulfate	**81.3**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 17:16
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**884**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-55R		Lab ID:HS24081709-18
Collection Date:	28-Aug-2024 09:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.398**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 16:01
Calcium	**113**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 16:01
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**338**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 17:27
Sulfate	**86.7**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 17:27
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**912**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-58		Lab ID:HS24081709-19
Collection Date:	28-Aug-2024 11:40		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**0.301**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 10:59
Calcium	**99.8**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 10:59
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**294**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 22:49
Sulfate	**70.9**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 22:49
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**828**		**5.00**	**10.0**	**mg/L**	1	29-Aug-2024 12:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-65		Lab ID:HS24081709-20
Collection Date:	28-Aug-2024 09:55		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.299**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 16:03
Calcium	**267**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**371**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:06
Sulfate	**677**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:06
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,660**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-36		Lab ID:HS24081709-21
Collection Date:	28-Aug-2024 08:55		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: JC
Boron	**0.0482**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 16:15
Calcium	**252**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 18:15
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**318**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:12
Sulfate	**441**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:12
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,220**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program	WorkOrder:	HS24081709
Sample ID:	MW-37	Lab ID:	HS24081709-22
Collection Date:	28-Aug-2024 10:35	Matrix:	Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**0.458**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 12:05
Calcium	**289**		**3.40**	**50.0**	**mg/L**	100	04-Sep-2024 12:49
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**243**		**4.00**	**10.0**	**mg/L**	20	30-Aug-2024 23:18
Sulfate	**1,330**		**4.00**	**10.0**	**mg/L**	20	30-Aug-2024 23:18
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**2,120**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-38R		Lab ID:HS24081709-23
Collection Date:	28-Aug-2024 11:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**0.394**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 12:07
Calcium	**223**		**3.40**	**50.0**	**mg/L**	100	04-Sep-2024 12:51
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**261**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:24
Sulfate	**802**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:24
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,580**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-60		Lab ID:HS24081709-24
Collection Date:	28-Aug-2024 08:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**0.0875**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 12:09
Calcium	**218**		**3.40**	**50.0**	**mg/L**	100	04-Sep-2024 12:54
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**310**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:29
Sulfate	**327**		**2.00**	**5.00**	**mg/L**	10	30-Aug-2024 23:29
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,260**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	MW-61		Lab ID:HS24081709-25
Collection Date:	28-Aug-2024 09:45		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**1.22**		**0.220**	**0.400**	**mg/L**	20	04-Sep-2024 12:46
Calcium	**280**		**0.680**	**10.0**	**mg/L**	20	04-Sep-2024 12:46
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**137**		**4.00**	**10.0**	**mg/L**	20	30-Aug-2024 23:35
Sulfate	**1,310**		**4.00**	**10.0**	**mg/L**	20	30-Aug-2024 23:35
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,900**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program		WorkOrder:HS24081709
Sample ID:	Field Blank 1		Lab ID:HS24081709-26
Collection Date:	28-Aug-2024 10:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**0.0147**	J	**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 12:14
Calcium	**0.281**	J	**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 12:14
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	< 0.200		0.200	0.500	mg/L	1	31-Aug-2024 00:11
Sulfate	< 0.200		0.200	0.500	mg/L	1	31-Aug-2024 00:11
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**72.0**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24081709
Sample ID:	Field Duplicate 1	Lab ID:HS24081709-27
Collection Date:	28-Aug-2024 11:00	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**0.0818**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 11:53
Calcium	**205**		**3.40**	**50.0**	**mg/L**	100	04-Sep-2024 14:22
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**311**		**2.00**	**5.00**	**mg/L**	10	31-Aug-2024 00:16
Sulfate	**436**		**2.00**	**5.00**	**mg/L**	10	31-Aug-2024 00:16
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,200**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program	WorkOrder:HS24081709
Sample ID:	Field Duplicate 2	Lab ID:HS24081709-28
Collection Date:	28-Aug-2024 11:10	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Sep-2024		Analyst: MSC
Boron	**0.198**		**0.0110**	**0.0200**	**mg/L**	1	04-Sep-2024 11:55
Calcium	**101**		**0.0340**	**0.500**	**mg/L**	1	04-Sep-2024 11:55
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**209**		**1.00**	**2.50**	**mg/L**	5	03-Sep-2024 13:36
Sulfate	**83.0**		**0.200**	**0.500**	**mg/L**	1	03-Sep-2024 13:30
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**828**		**5.00**	**10.0**	**mg/L**	1	30-Aug-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	10-Sep-2024 09:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

Batch ID: 217001 **Start Date:** 03 Sep 2024 08:30 **End Date:** 03 Sep 2024 08:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24081709-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-13		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-14		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-15		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-16		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-17		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-18		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-20		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-21		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 217006 **Start Date:** 03 Sep 2024 09:30 **End Date:** 03 Sep 2024 09:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24081709-19		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-22		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-23		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-24		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-25		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-26		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-27		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24081709-28		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 217001 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24081709-01	MW-39R	28 Aug 2024 08:45		03 Sep 2024 08:30	04 Sep 2024 18:00	20
HS24081709-01	MW-39R	28 Aug 2024 08:45		03 Sep 2024 08:30	04 Sep 2024 15:12	1
HS24081709-02	MW-40	28 Aug 2024 11:20		03 Sep 2024 08:30	04 Sep 2024 18:02	20
HS24081709-02	MW-40	28 Aug 2024 11:20		03 Sep 2024 08:30	04 Sep 2024 15:14	1
HS24081709-03	MW-41	28 Aug 2024 10:10		03 Sep 2024 08:30	04 Sep 2024 18:03	20
HS24081709-03	MW-41	28 Aug 2024 10:10		03 Sep 2024 08:30	04 Sep 2024 15:16	1
HS24081709-04	MW-62	28 Aug 2024 08:05		03 Sep 2024 08:30	04 Sep 2024 18:05	20
HS24081709-04	MW-62	28 Aug 2024 08:05		03 Sep 2024 08:30	04 Sep 2024 15:18	1
HS24081709-05	MW-63	28 Aug 2024 09:20		03 Sep 2024 08:30	04 Sep 2024 17:43	20
HS24081709-05	MW-63	28 Aug 2024 09:20		03 Sep 2024 08:30	04 Sep 2024 14:53	1
HS24081709-06	MW-64	28 Aug 2024 10:45		03 Sep 2024 08:30	04 Sep 2024 18:07	20
HS24081709-06	MW-64	28 Aug 2024 10:45		03 Sep 2024 08:30	04 Sep 2024 15:20	1
HS24081709-07	MW-23R	28 Aug 2024 12:05		03 Sep 2024 08:30	04 Sep 2024 18:09	20
HS24081709-07	MW-23R	28 Aug 2024 12:05		03 Sep 2024 08:30	04 Sep 2024 15:22	1
HS24081709-08	MW-28D	28 Aug 2024 10:00		03 Sep 2024 08:30	04 Sep 2024 15:24	1
HS24081709-09	MW-42	28 Aug 2024 12:30		03 Sep 2024 08:30	04 Sep 2024 15:26	1
HS24081709-10	MW-43	28 Aug 2024 12:50		03 Sep 2024 08:30	04 Sep 2024 15:28	1
HS24081709-11	MW-44	28 Aug 2024 12:30		03 Sep 2024 08:30	04 Sep 2024 15:47	1
HS24081709-12	MW-46R	28 Aug 2024 11:55		03 Sep 2024 08:30	04 Sep 2024 15:49	1
HS24081709-13	MW-47	28 Aug 2024 11:20		03 Sep 2024 08:30	04 Sep 2024 15:51	1
HS24081709-14	MW-48	28 Aug 2024 10:40		03 Sep 2024 08:30	04 Sep 2024 15:53	1
HS24081709-15	MW-50	28 Aug 2024 12:00		03 Sep 2024 08:30	04 Sep 2024 15:55	1
HS24081709-16	MW-52	28 Aug 2024 12:40		03 Sep 2024 08:30	04 Sep 2024 18:11	20
HS24081709-16	MW-52	28 Aug 2024 12:40		03 Sep 2024 08:30	04 Sep 2024 15:57	1
HS24081709-17	MW-54	28 Aug 2024 08:25		03 Sep 2024 08:30	04 Sep 2024 15:59	1
HS24081709-18	MW-55R	28 Aug 2024 09:15		03 Sep 2024 08:30	04 Sep 2024 16:01	1
HS24081709-20	MW-65	28 Aug 2024 09:55		03 Sep 2024 08:30	04 Sep 2024 18:13	20
HS24081709-20	MW-65	28 Aug 2024 09:55		03 Sep 2024 08:30	04 Sep 2024 16:03	1
HS24081709-21	MW-36	28 Aug 2024 08:55		03 Sep 2024 08:30	04 Sep 2024 18:15	20
HS24081709-21	MW-36	28 Aug 2024 08:55		03 Sep 2024 08:30	04 Sep 2024 16:15	1

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 217006 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24081709-19	MW-58	28 Aug 2024 11:40		03 Sep 2024 09:30	04 Sep 2024 10:59	1
HS24081709-22	MW-37	28 Aug 2024 10:35		03 Sep 2024 09:30	04 Sep 2024 12:49	100
HS24081709-22	MW-37	28 Aug 2024 10:35		03 Sep 2024 09:30	04 Sep 2024 12:05	1
HS24081709-23	MW-38R	28 Aug 2024 11:15		03 Sep 2024 09:30	04 Sep 2024 12:51	100
HS24081709-23	MW-38R	28 Aug 2024 11:15		03 Sep 2024 09:30	04 Sep 2024 12:07	1
HS24081709-24	MW-60	28 Aug 2024 08:15		03 Sep 2024 09:30	04 Sep 2024 12:54	100
HS24081709-24	MW-60	28 Aug 2024 08:15		03 Sep 2024 09:30	04 Sep 2024 12:09	1
HS24081709-25	MW-61	28 Aug 2024 09:45		03 Sep 2024 09:30	04 Sep 2024 12:46	20
HS24081709-26	Field Blank 1	28 Aug 2024 10:00		03 Sep 2024 09:30	04 Sep 2024 12:14	1
HS24081709-27	Field Duplicate 1	28 Aug 2024 11:00		03 Sep 2024 09:30	04 Sep 2024 14:22	100
HS24081709-27	Field Duplicate 1	28 Aug 2024 11:00		03 Sep 2024 09:30	04 Sep 2024 11:53	1
HS24081709-28	Field Duplicate 2	28 Aug 2024 11:10		03 Sep 2024 09:30	04 Sep 2024 11:55	1
Batch ID: R475883 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24081709-01	MW-39R	28 Aug 2024 08:45			29 Aug 2024 09:00	1
HS24081709-02	MW-40	28 Aug 2024 11:20			29 Aug 2024 09:00	1
HS24081709-03	MW-41	28 Aug 2024 10:10			29 Aug 2024 09:00	1
HS24081709-04	MW-62	28 Aug 2024 08:05			29 Aug 2024 09:00	1
HS24081709-05	MW-63	28 Aug 2024 09:20			29 Aug 2024 09:00	1
HS24081709-06	MW-64	28 Aug 2024 10:45			29 Aug 2024 09:00	1
HS24081709-07	MW-23R	28 Aug 2024 12:05			29 Aug 2024 09:00	1
HS24081709-08	MW-28D	28 Aug 2024 10:00			29 Aug 2024 09:00	1
HS24081709-09	MW-42	28 Aug 2024 12:30			29 Aug 2024 09:00	1
Batch ID: R476002 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24081709-10	MW-43	28 Aug 2024 12:50			29 Aug 2024 12:30	1
HS24081709-11	MW-44	28 Aug 2024 12:30			29 Aug 2024 12:30	1
HS24081709-12	MW-46R	28 Aug 2024 11:55			29 Aug 2024 12:30	1
HS24081709-13	MW-47	28 Aug 2024 11:20			29 Aug 2024 12:30	1
HS24081709-14	MW-48	28 Aug 2024 10:40			29 Aug 2024 12:30	1
HS24081709-15	MW-50	28 Aug 2024 12:00			29 Aug 2024 12:30	1
HS24081709-16	MW-52	28 Aug 2024 12:40			29 Aug 2024 12:30	1
HS24081709-17	MW-54	28 Aug 2024 08:25			29 Aug 2024 12:30	1
HS24081709-18	MW-55R	28 Aug 2024 09:15			29 Aug 2024 12:30	1
HS24081709-19	MW-58	28 Aug 2024 11:40			29 Aug 2024 12:30	1

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R476003 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24081709-01	MW-39R	28 Aug 2024 08:45			30 Aug 2024 11:03	10
HS24081709-02	MW-40	28 Aug 2024 11:20			30 Aug 2024 11:09	10
HS24081709-03	MW-41	28 Aug 2024 10:10			30 Aug 2024 11:44	10
HS24081709-04	MW-62	28 Aug 2024 08:05			30 Aug 2024 11:50	10
HS24081709-05	MW-63	28 Aug 2024 09:20			30 Aug 2024 10:45	10
HS24081709-06	MW-64	28 Aug 2024 10:45			30 Aug 2024 11:55	10
HS24081709-07	MW-23R	28 Aug 2024 12:05			30 Aug 2024 12:01	20
HS24081709-08	MW-28D	28 Aug 2024 10:00			30 Aug 2024 12:13	5
HS24081709-09	MW-42	28 Aug 2024 12:30			30 Aug 2024 12:19	10
HS24081709-10	MW-43	28 Aug 2024 12:50			30 Aug 2024 12:30	10
HS24081709-10	MW-43	28 Aug 2024 12:50			30 Aug 2024 12:24	1
HS24081709-11	MW-44	28 Aug 2024 12:30			30 Aug 2024 12:42	10
HS24081709-11	MW-44	28 Aug 2024 12:30			30 Aug 2024 12:36	1
HS24081709-12	MW-46R	28 Aug 2024 11:55			30 Aug 2024 13:23	10
Batch ID: R476005 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24081709-20	MW-65	28 Aug 2024 09:55			30 Aug 2024 09:00	1
HS24081709-21	MW-36	28 Aug 2024 08:55			30 Aug 2024 09:00	1
HS24081709-22	MW-37	28 Aug 2024 10:35			30 Aug 2024 09:00	1
HS24081709-23	MW-38R	28 Aug 2024 11:15			30 Aug 2024 09:00	1
HS24081709-24	MW-60	28 Aug 2024 08:15			30 Aug 2024 09:00	1
HS24081709-25	MW-61	28 Aug 2024 09:45			30 Aug 2024 09:00	1
HS24081709-26	Field Blank 1	28 Aug 2024 10:00			30 Aug 2024 09:00	1
HS24081709-27	Field Duplicate 1	28 Aug 2024 11:00			30 Aug 2024 09:00	1
HS24081709-28	Field Duplicate 2	28 Aug 2024 11:10			30 Aug 2024 09:00	1
Batch ID: R476044 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24081709-13	MW-47	28 Aug 2024 11:20			30 Aug 2024 15:54	10
HS24081709-13	MW-47	28 Aug 2024 11:20			30 Aug 2024 15:49	1
HS24081709-14	MW-48	28 Aug 2024 10:40			30 Aug 2024 16:41	10
HS24081709-15	MW-50	28 Aug 2024 12:00			30 Aug 2024 16:53	10
HS24081709-16	MW-52	28 Aug 2024 12:40			30 Aug 2024 17:04	10
HS24081709-17	MW-54	28 Aug 2024 08:25			30 Aug 2024 17:16	10
HS24081709-18	MW-55R	28 Aug 2024 09:15			30 Aug 2024 17:27	10

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R476046 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24081709-19	MW-58	28 Aug 2024 11:40			30 Aug 2024 22:49	10
HS24081709-20	MW-65	28 Aug 2024 09:55			30 Aug 2024 23:06	10
HS24081709-21	MW-36	28 Aug 2024 08:55			30 Aug 2024 23:12	10
HS24081709-22	MW-37	28 Aug 2024 10:35			30 Aug 2024 23:18	20
HS24081709-23	MW-38R	28 Aug 2024 11:15			30 Aug 2024 23:24	10
HS24081709-24	MW-60	28 Aug 2024 08:15			30 Aug 2024 23:29	10
HS24081709-25	MW-61	28 Aug 2024 09:45			30 Aug 2024 23:35	20
HS24081709-26	Field Blank 1	28 Aug 2024 10:00			31 Aug 2024 00:11	1
HS24081709-27	Field Duplicate 1	28 Aug 2024 11:00			31 Aug 2024 00:16	10
Batch ID: R476185 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24081709-28	Field Duplicate 2	28 Aug 2024 11:10			03 Sep 2024 13:36	5
HS24081709-28	Field Duplicate 2	28 Aug 2024 11:10			03 Sep 2024 13:30	1

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R476692 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24081709-01	MW-39R	28 Aug 2024 08:45			10 Sep 2024 09:09	1
HS24081709-02	MW-40	28 Aug 2024 11:20			10 Sep 2024 09:09	1
HS24081709-03	MW-41	28 Aug 2024 10:10			10 Sep 2024 09:09	1
HS24081709-04	MW-62	28 Aug 2024 08:05			10 Sep 2024 09:09	1
HS24081709-05	MW-63	28 Aug 2024 09:20			10 Sep 2024 09:09	1
HS24081709-06	MW-64	28 Aug 2024 10:45			10 Sep 2024 09:09	1
HS24081709-07	MW-23R	28 Aug 2024 12:05			10 Sep 2024 09:09	1
HS24081709-08	MW-28D	28 Aug 2024 10:00			10 Sep 2024 09:09	1
HS24081709-09	MW-42	28 Aug 2024 12:30			10 Sep 2024 09:09	1
HS24081709-10	MW-43	28 Aug 2024 12:50			10 Sep 2024 09:09	1
HS24081709-11	MW-44	28 Aug 2024 12:30			10 Sep 2024 09:09	1
HS24081709-12	MW-46R	28 Aug 2024 11:55			10 Sep 2024 09:09	1
HS24081709-13	MW-47	28 Aug 2024 11:20			10 Sep 2024 09:09	1
HS24081709-14	MW-48	28 Aug 2024 10:40			10 Sep 2024 09:09	1
HS24081709-15	MW-50	28 Aug 2024 12:00			10 Sep 2024 09:09	1
HS24081709-16	MW-52	28 Aug 2024 12:40			10 Sep 2024 09:09	1
HS24081709-17	MW-54	28 Aug 2024 08:25			10 Sep 2024 09:09	1
HS24081709-18	MW-55R	28 Aug 2024 09:15			10 Sep 2024 09:09	1
HS24081709-19	MW-58	28 Aug 2024 11:40			10 Sep 2024 09:09	1
HS24081709-20	MW-65	28 Aug 2024 09:55			10 Sep 2024 09:09	1
HS24081709-21	MW-36	28 Aug 2024 08:55			10 Sep 2024 09:09	1
HS24081709-22	MW-37	28 Aug 2024 10:35			10 Sep 2024 09:09	1
HS24081709-23	MW-38R	28 Aug 2024 11:15			10 Sep 2024 09:09	1
HS24081709-24	MW-60	28 Aug 2024 08:15			10 Sep 2024 09:09	1
HS24081709-25	MW-61	28 Aug 2024 09:45			10 Sep 2024 09:09	1
HS24081709-26	Field Blank 1	28 Aug 2024 10:00			10 Sep 2024 09:09	1
HS24081709-27	Field Duplicate 1	28 Aug 2024 11:00			10 Sep 2024 09:09	1
HS24081709-28	Field Duplicate 2	28 Aug 2024 11:10			10 Sep 2024 09:09	1

WorkOrder: HS24081709
InstrumentID: ICPMS06
Test Code: ICP_TW
Test Number: SW6020A
Test Name: ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0500	0.0505	0.0110	0.0200
A	Calcium	7440-70-2	0.0500	1.02	0.0340	0.500

WorkOrder: HS24081709
InstrumentID: ICPMS05
Test Code: ICP_TW
Test Number: SW6020A
Test Name: ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0500	0.0581	0.0110	0.0200
A	Calcium	7440-70-2	0.0500	0.0696	0.0340	0.500

WorkOrder: HS24081709
InstrumentID: Subcontract
Test Code: Sub_Flouride
Test Number: NA
Test Name: Subcontract Analysis - Flouride

METHOD DETECTION / REPORTING LIMITS

Matrix:

Units:

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Subcontract Analysis		0	0	0	0

WorkOrder: HS24081709
InstrumentID: ICS-Integrion
Test Code: 300_W
Test Number: E300
Test Name: Anions by E300.0, Rev 2.1, 1993

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Chloride	16887-00-6	0.500	0.511	0.200	0.500
A	Sulfate	14808-79-8	0.500	0.621	0.200	0.500

WorkOrder: HS24081709
InstrumentID: Balance1
Test Code: TDS_W 2540C
Test Number: M2540C
Test Name: Total Dissolved Solids by SM2540C

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Total Dissolved Solids (Residue, Filterable)	TDS	10.0	2.00	5.00	10.0

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: 217001 (0) **Instrument:** ICPMS06 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-217001** Units: **mg/L** Analysis Date: **04-Sep-2024 14:49**
Client ID: Run ID: **ICPMS06_476263** SeqNo: **8227908** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	< 0.0110	0.0200								
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-217001** Units: **mg/L** Analysis Date: **04-Sep-2024 14:51**
Client ID: Run ID: **ICPMS06_476263** SeqNo: **8227909** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4454	0.0200	0.5	0	89.1	80 - 120				
Calcium	4.748	0.500	5	0	95.0	80 - 120				

MS Sample ID: **HS24081709-05MS** Units: **mg/L** Analysis Date: **04-Sep-2024 14:59**
Client ID: **MW-63** Run ID: **ICPMS06_476263** SeqNo: **8227913** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7396	0.0200	0.5	0.2667	94.6	80 - 120				
Calcium	252.9	0.500	5	260	-141	80 - 120				SEO

MSD Sample ID: **HS24081709-05MSD** Units: **mg/L** Analysis Date: **04-Sep-2024 15:01**
Client ID: **MW-63** Run ID: **ICPMS06_476263** SeqNo: **8227914** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7423	0.0200	0.5	0.2667	95.1	80 - 120	0.7396	0.369	20	
Calcium	255.6	0.500	5	260	-87.5	80 - 120	252.9	1.05	20	SEO

PDS Sample ID: **HS24081709-05PDS** Units: **mg/L** Analysis Date: **04-Sep-2024 15:03**
Client ID: **MW-63** Run ID: **ICPMS06_476263** SeqNo: **8227915** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5505	0.0200	0.25	0.2667	114	75 - 125				

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: 217001 (0) **Instrument:** ICPMS06 **Method:** ICP-MS METALS BY SW6020A

PDS Sample ID: **HS24081709-05PDS** Units: **mg/L** Analysis Date: **04-Sep-2024 17:47**
Client ID: **MW-63** Run ID: **ICPMS06_476263** SeqNo: **8228449** PrepDate: **03-Sep-2024** DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	445.6	10.0	200	256.6	94.5	75 - 125				

SD Sample ID: **HS24081709-05SD** Units: **mg/L** Analysis Date: **04-Sep-2024 14:57**
Client ID: **MW-63** Run ID: **ICPMS06_476263** SeqNo: **8227912** PrepDate: **03-Sep-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.2704	0.100					0.2667	1.4	10	

SD Sample ID: **HS24081709-05SD** Units: **mg/L** Analysis Date: **04-Sep-2024 17:45**
Client ID: **MW-63** Run ID: **ICPMS06_476263** SeqNo: **8228448** PrepDate: **03-Sep-2024** DF: **100**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	251.5	50.0					256.6	2	10	

The following samples were analyzed in this batch:

HS24081709-01	HS24081709-02	HS24081709-03	HS24081709-04
HS24081709-05	HS24081709-06	HS24081709-07	HS24081709-08
HS24081709-09	HS24081709-10	HS24081709-11	HS24081709-12
HS24081709-13	HS24081709-14	HS24081709-15	HS24081709-16
HS24081709-17	HS24081709-18	HS24081709-20	HS24081709-21

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: 217006 (0) **Instrument:** ICPMS05 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-217006** Units: **mg/L** Analysis Date: **04-Sep-2024 10:38**
Client ID: Run ID: **ICPMS05_476204** SeqNo: **8226651** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	< 0.0110	0.0200								
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-217006** Units: **mg/L** Analysis Date: **04-Sep-2024 10:45**
Client ID: Run ID: **ICPMS05_476204** SeqNo: **8226652** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4552	0.0200	0.5	0	91.0	80 - 120				
Calcium	4.785	0.500	5	0	95.7	80 - 120				

MS Sample ID: **HS24081709-19MS** Units: **mg/L** Analysis Date: **04-Sep-2024 11:03**
Client ID: **MW-58** Run ID: **ICPMS05_476204** SeqNo: **8226678** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7752	0.0200	0.5	0.3012	94.8	80 - 120				
Calcium	103.8	0.500	5	99.75	81.4	80 - 120				O

MSD Sample ID: **HS24081709-19MSD** Units: **mg/L** Analysis Date: **04-Sep-2024 11:06**
Client ID: **MW-58** Run ID: **ICPMS05_476204** SeqNo: **8226679** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7799	0.0200	0.5	0.3012	95.7	80 - 120	0.7752	0.608	20	
Calcium	103.3	0.500	5	99.75	70.5	80 - 120	103.8	0.526	20	SO

PDS Sample ID: **HS24081709-19PDS** Units: **mg/L** Analysis Date: **04-Sep-2024 11:08**
Client ID: **MW-58** Run ID: **ICPMS05_476204** SeqNo: **8226680** PrepDate: **03-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.8163	0.0200	0.5	0.3012	103	75 - 125				
Calcium	109.5	0.500	10	99.75	97.4	75 - 125				O

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: 217006 (0) **Instrument:** ICPMS05 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24081709-19SD** Units: **mg/L** Analysis Date: **04-Sep-2024 11:01**

Client ID: **MW-58** Run ID: **ICPMS05_476204** SeqNo: **8226677** PrepDate: **03-Sep-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.3124	0.100					0.3012	3.71	10	
Calcium	97.89	2.50					99.75	1.87	10	

The following samples were analyzed in this batch:

HS24081709-19	HS24081709-22	HS24081709-23	HS24081709-24
HS24081709-25	HS24081709-26	HS24081709-27	HS24081709-28

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R475883 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-08292024** Units: **mg/L** Analysis Date: **29-Aug-2024 09:00**
Client ID: Run ID: **Balance1_475883** SeqNo: **8220052** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-08292024** Units: **mg/L** Analysis Date: **29-Aug-2024 09:00**
Client ID: Run ID: **Balance1_475883** SeqNo: **8220051** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	938	10.0	1000	0	93.8	85 - 115				

DUP Sample ID: **HS24081709-05 DUP** Units: **mg/L** Analysis Date: **29-Aug-2024 09:00**
Client ID: **MW-63** Run ID: **Balance1_475883** SeqNo: **8220044** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1220	10.0					1220	0	20	

DUP Sample ID: **HS24081561-01 DUP** Units: **mg/L** Analysis Date: **29-Aug-2024 09:00**
Client ID: Run ID: **Balance1_475883** SeqNo: **8220030** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1450	10.0					1460	0.687	20	

The following samples were analyzed in this batch:

HS24081709-01	HS24081709-02	HS24081709-03	HS24081709-04
HS24081709-05	HS24081709-06	HS24081709-07	HS24081709-08
HS24081709-09			

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476002 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-08292024** Units: **mg/L** Analysis Date: **29-Aug-2024 12:30**
Client ID: Run ID: **Balance1_476002** SeqNo: **8222669** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-08292024** Units: **mg/L** Analysis Date: **29-Aug-2024 12:30**
Client ID: Run ID: **Balance1_476002** SeqNo: **8222668** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	974	10.0	1000	0	97.4	85 - 115				

DUP Sample ID: **HS24081709-19 DUP** Units: **mg/L** Analysis Date: **29-Aug-2024 12:30**
Client ID: **MW-58** Run ID: **Balance1_476002** SeqNo: **8222667** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	848	10.0					828	2.39	20	

The following samples were analyzed in this batch:

HS24081709-10	HS24081709-11	HS24081709-12	HS24081709-13
HS24081709-14	HS24081709-15	HS24081709-16	HS24081709-17
HS24081709-18	HS24081709-19		

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476003 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **30-Aug-2024 08:42**
Client ID: Run ID: **ICS-Integrion_476003** SeqNo: **8222624** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **30-Aug-2024 08:54**
Client ID: Run ID: **ICS-Integrion_476003** SeqNo: **8222625** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.12	0.500	20	0	106	90 - 110				
Sulfate	21.54	0.500	20	0	108	90 - 110				

MS Sample ID: **HS24081709-05MS** Units: **mg/L** Analysis Date: **30-Aug-2024 10:51**
Client ID: **MW-63** Run ID: **ICS-Integrion_476003** SeqNo: **8222637** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	320.4	5.00	100	208.1	112	80 - 120				
Sulfate	688	5.00	100	571.3	117	80 - 120				O

MS Sample ID: **HS24081708-01MS** Units: **mg/L** Analysis Date: **30-Aug-2024 10:15**
Client ID: Run ID: **ICS-Integrion_476003** SeqNo: **8222632** PrepDate: DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	100.8	1.00	20	82.85	89.8	80 - 120				O
Sulfate	30.46	1.00	20	7.493	115	80 - 120				

MSD Sample ID: **HS24081709-05MSD** Units: **mg/L** Analysis Date: **30-Aug-2024 10:57**
Client ID: **MW-63** Run ID: **ICS-Integrion_476003** SeqNo: **8222638** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	320.5	5.00	100	208.1	112	80 - 120	320.4	0.0218	20	
Sulfate	688.2	5.00	100	571.3	117	80 - 120	688	0.0311	20	O

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476003 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS24081708-01MSD** Units: **mg/L** Analysis Date: **30-Aug-2024 10:21**
Client ID: Run ID: **ICS-Integrion_476003** SeqNo: **8222633** PrepDate: DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	100.6	1.00	20	82.85	88.7	80 - 120	100.8	0.211	20	O
Sulfate	31.21	1.00	20	7.493	119	80 - 120	30.46	2.42	20	

The following samples were analyzed in this batch:

HS24081709-01	HS24081709-02	HS24081709-03	HS24081709-04
HS24081709-05	HS24081709-06	HS24081709-07	HS24081709-08
HS24081709-09	HS24081709-10	HS24081709-11	HS24081709-12

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476005 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-08302024** Units: **mg/L** Analysis Date: **30-Aug-2024 09:00**
Client ID: Run ID: **Balance1_476005** SeqNo: **8222701** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-08302024** Units: **mg/L** Analysis Date: **30-Aug-2024 09:00**
Client ID: Run ID: **Balance1_476005** SeqNo: **8222700** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	912	10.0	1000	0	91.2	85 - 115				

DUP Sample ID: **HS24081771-01DUP** Units: **mg/L** Analysis Date: **30-Aug-2024 09:00**
Client ID: Run ID: **Balance1_476005** SeqNo: **8222689** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	278	10.0					276	0.722	20	

DUP Sample ID: **HS24081712-01DUP** Units: **mg/L** Analysis Date: **30-Aug-2024 09:00**
Client ID: Run ID: **Balance1_476005** SeqNo: **8222687** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	7060	10.0					7000	0.853	20	

The following samples were analyzed in this batch:

HS24081709-20	HS24081709-21	HS24081709-22	HS24081709-23
HS24081709-24	HS24081709-25	HS24081709-26	HS24081709-27
HS24081709-28			

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476044 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **30-Aug-2024 13:40**
Client ID: Run ID: **ICS-Integrion_476044** SeqNo: **8223464** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **30-Aug-2024 13:52**
Client ID: Run ID: **ICS-Integrion_476044** SeqNo: **8223465** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.68	0.500	20	0	103	90 - 110				
Sulfate	20.24	0.500	20	0	101	90 - 110				

MS Sample ID: **HS24081857-02MS** Units: **mg/L** Analysis Date: **30-Aug-2024 14:15**
Client ID: Run ID: **ICS-Integrion_476044** SeqNo: **8223468** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	148.1	0.500	10	136.7	114	80 - 120				EO
Sulfate	36.55	0.500	10	24.71	118	80 - 120				

MSD Sample ID: **HS24081857-02MSD** Units: **mg/L** Analysis Date: **30-Aug-2024 14:21**
Client ID: Run ID: **ICS-Integrion_476044** SeqNo: **8223469** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	149.4	0.500	10	136.7	127	80 - 120	148.1	0.883	20	SEO
Sulfate	36.54	0.500	10	24.71	118	80 - 120	36.55	0.0342	20	

The following samples were analyzed in this batch:

HS24081709-13	HS24081709-14	HS24081709-15	HS24081709-16
HS24081709-17	HS24081709-18		

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476046 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **30-Aug-2024 18:32**
Client ID: Run ID: **ICS-Integrion_476046** SeqNo: **8223511** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **30-Aug-2024 18:44**
Client ID: Run ID: **ICS-Integrion_476046** SeqNo: **8223512** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.6	0.500	20	0	103	90 - 110				
Sulfate	20.21	0.500	20	0	101	90 - 110				

MS Sample ID: **HS24081858-38MS** Units: **mg/L** Analysis Date: **30-Aug-2024 20:23**
Client ID: Run ID: **ICS-Integrion_476046** SeqNo: **8223525** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	261.3	10.0	200	59.04	101	80 - 120				
Sulfate	609.6	10.0	200	446.1	81.8	80 - 120				

MS Sample ID: **HS24081709-19MS** Units: **mg/L** Analysis Date: **30-Aug-2024 22:55**
Client ID: **MW-58** Run ID: **ICS-Integrion_476046** SeqNo: **8223544** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	408.9	5.00	100	294.2	115	80 - 120				
Sulfate	189.1	5.00	100	70.92	118	80 - 120				

MSD Sample ID: **HS24081858-38MSD** Units: **mg/L** Analysis Date: **30-Aug-2024 20:29**
Client ID: Run ID: **ICS-Integrion_476046** SeqNo: **8223526** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	260.9	10.0	200	59.04	101	80 - 120	261.3	0.184	20	
Sulfate	606.9	10.0	200	446.1	80.4	80 - 120	609.6	0.447	20	

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: **R476046 (0)** **Instrument:** **ICS-Integrion** **Method:** **ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS24081709-19MSD** Units: **mg/L** Analysis Date: **30-Aug-2024 23:00**

Client ID: **MW-58** Run ID: **ICS-Integrion_476046** SeqNo: **8223545** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	409	5.00	100	294.2	115	80 - 120	408.9	0.0196	20	
Sulfate	188.7	5.00	100	70.92	118	80 - 120	189.1	0.229	20	

The following samples were analyzed in this batch:

HS24081709-19	HS24081709-20	HS24081709-21	HS24081709-22
HS24081709-23	HS24081709-24	HS24081709-25	HS24081709-26
HS24081709-27			

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476185 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **03-Sep-2024 10:29**
Client ID: Run ID: **ICS-Integrion_476185** SeqNo: **8226030** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **03-Sep-2024 10:35**
Client ID: Run ID: **ICS-Integrion_476185** SeqNo: **8226031** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20	0.500	20	0	100.0	90 - 110				
Sulfate	20.14	0.500	20	0	101	90 - 110				

MS Sample ID: **HS24081922-09MS** Units: **mg/L** Analysis Date: **03-Sep-2024 12:08**
Client ID: Run ID: **ICS-Integrion_476185** SeqNo: **8226043** PrepDate: DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	134.9	1.00	20	120	74.3	80 - 120				SO
Sulfate	89.29	1.00	20	75.5	68.9	80 - 120				S

MS Sample ID: **HS24081712-02MS** Units: **mg/L** Analysis Date: **03-Sep-2024 13:47**
Client ID: Run ID: **ICS-Integrion_476185** SeqNo: **8226057** PrepDate: DF: **50**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1237	25.0	500	712	105	80 - 120				
Sulfate	2577	25.0	500	2118	91.7	80 - 120				O

MSD Sample ID: **HS24081922-09MSD** Units: **mg/L** Analysis Date: **03-Sep-2024 12:14**
Client ID: Run ID: **ICS-Integrion_476185** SeqNo: **8226044** PrepDate: DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	134.6	1.00	20	120	72.9	80 - 120	134.9	0.215	20	SO
Sulfate	89.16	1.00	20	75.5	68.3	80 - 120	89.29	0.146	20	S

Client: TRC
Project: WA Parish CCR Program
WorkOrder: HS24081709

QC BATCH REPORT

Batch ID: R476185 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS24081712-02MSD** Units: **mg/L** Analysis Date: **03-Sep-2024 13:53**
Client ID: Run ID: **ICS-Integrion_476185** SeqNo: **8226058** PrepDate: DF: **50**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1264	25.0	500	712	110	80 - 120	1237	2.18	20	
Sulfate	2625	25.0	500	2118	101	80 - 120	2577	1.86	20	O

The following samples were analyzed in this batch: HS24081709-28

Client:	TRC	**QUALIFIERS, ACRONYMS, UNITS**
Project:	WA Parish CCR Program	
WorkOrder:	**HS24081709**	

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L22-90-R2	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Sep-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

Sample Receipt Checklist

Work Order ID: HS24081709 **Date/Time Received:** 28-Aug-2024 14:05
Client Name: TRC-HOU **Received by:** Si Ma

Completed By:	/S/ Nilesh D. Ranchod	28-Aug-2024 16:44	**Reviewed by:**	/S/ Alexis Dorenbosch	29-Aug-2024 09:51
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **Client**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	4 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:322007/322006/322005/322004
	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?			

Temperature(s)/Thermometer(s):	2.6C/2.6C, 3.5C/3.5C UC/C	IR35
Cooler(s)/Kit(s):	49454/47417	
Date/Time sample(s) sent to storage:	08/28/2024 17:00	

Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

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Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 4

COC ID: 322007

HS24081709
TRC
WA Parish CCR Program

ALS Project Manager:

Customer Information

Purchase Order	211381
Work Order	
Company Name	TRC Corporation
Send Report To	Lori Burris
Address	14701 St. Mary's Lane Suite 500
City/State/Zip	Houston, TX 77079
Phone	(713) 244-1000
Fax	(713) 244-1099
e-Mail Address	LBurris@trcsolutions.com

Project Information

Project Name	WA Parish CCR Program
Project Number	528472.0000.0000
Bill To Company	TRC
Invoice Attn	A/P
Address	14701 St. Mary's Lane Suite 500
City/State/Zip	Houston TX 77079
Phone	(713) 244-1000
Fax	(713) 244-1099
e-Mail Address	apinvoiceapproval@trcsolutions.com

A	ICP_TW(B and Ca)- Appendix III
B	300_W (Cl, SO4)- Appendix III
C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
D	TDS_W 2540C (TDS)- Appendix III
E	
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-39R	8-28-24	845	Water	2,8	3	X	X	X	X							
2	MW-40		1120	Water	2,8	3	X	X	X	X							
3	MW-41		1010	Water	2,8	3	X	X	X	X							
4	MW-62		805	Water	2,8	3	X	X	X	X							
5	MW-63		920	Water	2,8	3	X	X	X	X							
6	MW-64		1045	Water	2,8	3	X	X	X	X							
7	MW-23R		1205	Water	2,8	3	X	X	X	X							
8	MW-28D		1000	Water	2,8	3	X	X	X	X							
9	MW-42		1230	Water	2,8	3	X	X	X	X							
0	MW-43		1250	Water	2,8	3	X	X	X	X							

Sampler(s) Please Print & Sign: Brian Hillin/HMT Team

Shipment Method: Drop off @ lab

Required Turnaround Time: (Check Box) ☐ Other ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: Cody Springer	Date: 8-28-24	Time: 1405	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): SM 08/28/24 14:05
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Notes: NRG CCR PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
49454	2.6
47417	3.5

QC Package: (Check One Box Below)
☒ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

DMM 3.5

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Chain of Custody Form

Page 2 of 4

COC ID: 322006

HS24081709
TRC
WA Parish CCR Program

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211381	Project Name	WA Parish CCR Program	A	ICP_TW (B and Ca)- Appendix III
Work Order		Project Number	528472.0000.0000	B	300_W (Cl, SO4)- Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)- Appendix III
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-44	8-28-24	1230	Water	2,8	3	X	X	X	X							
2	MW-46R		1155	Water	2,8	3	X	X	X	X							
3	MW-47		1120	Water	2,8	3	X	X	X	X							
4	MW-48		1040	Water	2,8	3	X	X	X	X							
5	MW-50		1200	Water	2,8	3	X	X	X	X							
6	MW-52		1240	Water	2,8	3	X	X	X	X							
7	MW-54		825	Water	2,8	3	X	X	X	X							
8	MW-55R		915	Water	2,8	3	X	X	X	X							
9	MW-58		1140	Water	2,8	3	X	X	X	X							
10	MW-65		955	Water	2,8	3	X	X	X	X							

Sampler(s) Please Print & Sign: Brian Hillin / HMI Team

Shipment Method: Drop off @ lab

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other ____

Results Due Date:

Relinquished by: Cody Springer Date: 8/28/24 Time: 1405 Received by:

Relinquished by: Date: Time: Received by (Laboratory): SM 08/28/24 14:05

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes: NRG CCR□PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
		☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other ____ ☐ TRRP Checklist ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

Page 3 of 4

COC ID: 322005

HS24081709
TRC
WA Parish CCR Program

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211381	Project Name	WA Parish CCR Program	A	ICP_TW (B and Ca)- Appendix III
Work Order		Project Number	528472.0000.0000	B	300_W (Cl, SO4)- Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)- Appendix III
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-36	8-28-24	855	Water	2,8	3	X	X	X	X							
2	MW-37	↓	1035	Water	2,8	3	X	X	X	X							
3	MW-38R		1115	Water	2,8	3	X	X	X	X							
4	MW-60		815	Water	2,8	3	X	X	X	X							
5	MW-61		945	Water	2,8	3	X	X	X	X							
6	MW-58-MS		1140	Water	2,8	3	X	X	X	X							
7	MW-58-MSD		1140	Water	2,8	3	X	X	X	X							
8	MW-63-MS		920	Water	2,8	3	X	X	X	X							
9	MW-63-MSD		920	Water	2,8	3	X	X	X	X							
10	Field Blank		1000	Water	2,8	3	X	X	X	X							

Sampler(s) Please Print & Sign: Brian Hillin/HMI Team [signature]

Shipment Method: Drop off @ lab

Required Turnaround Time: (Check Box) ☐ Other ____ ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Cody Springer	8-28-24	1405	
Relinquished by:	**Date:**	**Time:**	**Received by (Laboratory):**
			SM 08/28/24 14:05
Logged by (Laboratory):	**Date:**	**Time:**	**Checked by (Laboratory):**

Notes: NRG CCR PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
☒ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other ____
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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3. The Chain of Custody is a legal document. All information must be completed accurately.

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Holland, MI +1 616 399 6070

Chain of Custody Form

COC ID: 322004

HS24081709
TRC
WA Parish CCR Program

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211381	Project Name	WA Parish CCR Program	A	ICP_TW (B and Ca)- Appendix III
Work Order		Project Number	528472.0000.0000	B	300_W (Cl, SO4)- Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)- App III
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)- Appendix III
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Field Duplicate 1	8-28-24	1100	Water	2,8	3	X	X	X	X							
2	Field Duplicate 2	↓	1110	Water	2,8	3	X	X	X	X							
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Brian Hillin/HMI Team

Shipment Method: Drop off @ lab

Required Turnaround Time: (Check Box) ☐ Other ______ ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Cody Springer	8-28-24	1405	
Relinquished by:	Date:	Time:	Received by (Laboratory): SM 08/28/24 14:05
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG CCR PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
		☒ Level II Std QC	☐ TRRP Checklist
		☐ Level III Std QC/Raw Data	☐ TRRP Level IV
		☐ Level IV SW846/CLP	
		☐ Other ______	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Privileged and Confidential

10-Sep-2024

Andrew Neir
ALS Environmental
10450 Stancliff Rd
Suite 210
Houston, TX 77099

Re: **HS24081709** Work Order: **24090018**

Dear Andrew,

ALS Environmental received 28 samples on 31-Aug-2024 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 41.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Chelsey Cook

Electronically approved by: Chelsey Cook

Chelsey Cook
Project Manager

Report of Laboratory Analysis

Certificate No: TX: T104704494

ALS Group, USA

Date: 10-Sep-24

Client: ALS Environmental
Project: HS24081709
Work Order: **24090018**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24090018-01	HS24081709-01	Water		8/28/2024 08:45	8/31/2024 09:30	☐
24090018-02	HS24081709-02	Water		8/28/2024 11:20	8/31/2024 09:30	☐
24090018-03	HS24081709-03	Water		8/28/2024 10:10	8/31/2024 09:30	☐
24090018-04	HS24081709-04	Water		8/28/2024 08:05	8/31/2024 09:30	☐
24090018-05	HS24081709-05	Water		8/28/2024 09:20	8/31/2024 09:30	☐
24090018-06	HS24081709-06	Water		8/28/2024 10:45	8/31/2024 09:30	☐
24090018-07	HS24081709-07	Water		8/28/2024 12:05	8/31/2024 09:30	☐
24090018-08	HS24081709-08	Water		8/28/2024 10:00	8/31/2024 09:30	☐
24090018-09	HS24081709-09	Water		8/28/2024 12:30	8/31/2024 09:30	☐
24090018-10	HS24081709-10	Water		8/28/2024 12:50	8/31/2024 09:30	☐
24090018-11	HS24081709-11	Water		8/28/2024 12:30	8/31/2024 09:30	☐
24090018-12	HS24081709-12	Water		8/28/2024 11:55	8/31/2024 09:30	☐
24090018-13	HS24081709-13	Water		8/28/2024 11:20	8/31/2024 09:30	☐
24090018-14	HS24081709-14	Water		8/28/2024 10:40	8/31/2024 09:30	☐
24090018-15	HS24081709-15	Water		8/28/2024 12:00	8/31/2024 09:30	☐
24090018-16	HS24081709-16	Water		8/28/2024 12:40	8/31/2024 09:30	☐
24090018-17	HS24081709-17	Water		8/28/2024 08:25	8/31/2024 09:30	☐
24090018-18	HS24081709-18	Water		8/28/2024 09:15	8/31/2024 09:30	☐
24090018-19	HS24081709-19	Water		8/28/2024 11:40	8/31/2024 09:30	☐
24090018-20	HS24081709-20	Water		8/28/2024 09:55	8/31/2024 09:30	☐
24090018-21	HS24081709-21	Water		8/28/2024 08:55	8/31/2024 09:30	☐
24090018-22	HS24081709-22	Water		8/28/2024 10:35	8/31/2024 09:30	☐
24090018-23	HS24081709-23	Water		8/28/2024 11:15	8/31/2024 09:30	☐
24090018-24	HS24081709-24	Water		8/28/2024 08:15	8/31/2024 09:30	☐
24090018-25	HS24081709-25	Water		8/28/2024 09:45	8/31/2024 09:30	☐
24090018-26	HS24081709-26	Water		8/28/2024 10:00	8/31/2024 09:30	☐
24090018-27	HS24081709-27	Water		8/28/2024 11:00	8/31/2024 09:30	☐
24090018-28	HS24081709-28	Water		8/28/2024 11:10	8/31/2024 09:30	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR1_240909A	Instrument ID: TITRATOR1	
Method: FL_4500C_W	Work order Number (s): 24090018		
Analyst Name: QN	Date: 9/9/2024	Reviewer Name: JB	Date: 9/10/24

	A[1]	Description	Yes	No	NA[2]	NR[3]	ER#[4]
R1	I	Chain-of-Custody					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?			X		
		2) Were all departures from standard conditions described in an exception report?			X		
R2	I	**SAMPLE AND QUALITY CONTROL (QC) IDENTIFICATION**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?			X		
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?			X		
R3	I	**TEST REPORTS**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			X		
		7) Was % moisture (or solids) reported for all soil and sediment samples?			X		
		8) If required for the project, TICs reported?			X		
R4	I	**SURROGATE RECOVERY DATA**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	I	**TEST REPORTS/SUMMMARY FORMS FOR BLANK SAMPLES**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < ½ MQL?	X				
R6	I	**LABORATORY CONTROL SAMPLES (LCS):**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS and LCSD %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		6) Was the LCSD RPD within QC limits?	X				
R7	I	**MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD) DATA**					
		1) Were the project or method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS and MSD %Rs within the laboratory QC limits?	X				
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	I	**ANALYTICAL DUPLICATE DATA (IF REQUIRED)**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	I	**METHOD QUANTITATION LIMITS (MQLS):**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs included in the laboratory data package?			X		
R10	I	**OTHER PROBLEMS/ANOMALIES**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Were all necessary corrective actions performed for the reported data?	X				
		3) If requested, is the justification for elevated SQLs documented?			X		

S1	I	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?			X		
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	I	**INITIAL AND CONTINUING CALIBRATION VERIFICATION (ICCV AND CCV) AND**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the organic CCB < MDL?	X				
S3	I	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?			X		
		2) Were ion abundance data within the method-required QC limits?			X		
S4	I	**INTERNAL STANDARDS (IS):**					
		Were IS area counts within the method-required QC limits?			X		
S5	I	**RAW DATA**					
		1) Were the raw data (e.g., chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	I	**DUAL COLUMN CONFIRMATION (IF REQUIRED)**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	I	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?			X		
S9	I	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	I	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S11	I	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	I	**STANDARDS DOCUMENTATION**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	I	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	I	**DEMONSTRATION OF ANALYST COMPETENCY (DOC)**					
		1) Was DOC conducted consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	I	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all the methods used to generate the data documented, verified, and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S16	I	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

1 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
2 NA = Not applicable.
3 NR = Not Reviewed.
4 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Wet Chemistry Data Assessment Checklist

Wet Chemistry	Batch Number:	

ER #[1]	DESCRIPTION
1	
2	
3	
4	
5	
6	

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

Client: ALS Environmental
Project: HS24081709
WorkOrder: **24090018**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Analyte accreditation is not offered
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
mg/L	Milligrams per Liter

Client: ALS Environmental
Project: HS24081709
Work Order: 24090018

Case Narrative

Samples for the above noted Work Order were received on 08/31/2024. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Wet Chemistry:
No deviations or anomalies were noted.

ALS Group, USA

Date: *10-Sep-2024*

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-01	**Lab ID:**	24090018-01
Collection Date:	8/28/2024 08:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	ND		0.10	mg/L	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24081709 **Work Order:** 24090018
Sample ID: HS24081709-02 **Lab ID:** 24090018-02
Collection Date: 8/28/2024 11:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	ND		0.10	mg/L	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *10-Sep-2024*

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-03	**Lab ID:**	24090018-03
Collection Date:	8/28/2024 10:10 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.100**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-04	**Lab ID:**	24090018-04
Collection Date:	8/28/2024 08:05 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.130**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-05	**Lab ID:**	24090018-05
Collection Date:	8/28/2024 09:20 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.130**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-06	**Lab ID:**	24090018-06
Collection Date:	8/28/2024 10:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.190**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-07	**Lab ID:**	24090018-07
Collection Date:	8/28/2024 12:05 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.230**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24081709 | **Work Order:** 24090018
Sample ID: HS24081709-08 | **Lab ID:** 24090018-08
Collection Date: 8/28/2024 10:00 AM | **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.240**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-09	**Lab ID:**	24090018-09
Collection Date:	8/28/2024 12:30 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.540**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24081709 **Work Order:** 24090018
Sample ID: HS24081709-10 **Lab ID:** 24090018-10
Collection Date: 8/28/2024 12:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.530**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-11	**Lab ID:**	24090018-11
Collection Date:	8/28/2024 12:30 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.380**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-12	**Lab ID:**	24090018-12
Collection Date:	8/28/2024 11:55 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.280**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24081709 **Work Order:** 24090018
Sample ID: HS24081709-13 **Lab ID:** 24090018-13
Collection Date: 8/28/2024 11:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.330**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-14	**Lab ID:**	24090018-14
Collection Date:	8/28/2024 10:40 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.660**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-15	**Lab ID:**	24090018-15
Collection Date:	8/28/2024 12:00 PM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.410**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *10-Sep-2024*

Client: ALS Environmental
Project: HS24081709 **Work Order:** 24090018
Sample ID: HS24081709-16 **Lab ID:** 24090018-16
Collection Date: 8/28/2024 12:40 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.500**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-17	**Lab ID:**	24090018-17
Collection Date:	8/28/2024 08:25 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.400**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-18	**Lab ID:**	24090018-18
Collection Date:	8/28/2024 09:15 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.680**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-19	**Lab ID:**	24090018-19
Collection Date:	8/28/2024 11:40 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.390**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24081709 **Work Order:** 24090018
Sample ID: HS24081709-20 **Lab ID:** 24090018-20
Collection Date: 8/28/2024 09:55 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.240**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-21	**Lab ID:**	24090018-21
Collection Date:	8/28/2024 08:55 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.340**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ALS Environmental
Project: HS24081709
Sample ID: HS24081709-22
Collection Date: 8/28/2024 10:35 AM

Work Order: 24090018
Lab ID: 24090018-22
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.180**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-23	**Lab ID:**	24090018-23
Collection Date:	8/28/2024 11:15 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.160**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-24	**Lab ID:**	24090018-24
Collection Date:	8/28/2024 08:15 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.100**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-25	**Lab ID:**	24090018-25
Collection Date:	8/28/2024 09:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.200**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *10-Sep-2024*

Client: ALS Environmental
Project: HS24081709 **Work Order:** 24090018
Sample ID: HS24081709-26 **Lab ID:** 24090018-26
Collection Date: 8/28/2024 10:00 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	ND		0.10	mg/L	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-27	**Lab ID:**	24090018-27
Collection Date:	8/28/2024 11:00 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.320**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	ALS Environmental		
Project:	HS24081709	**Work Order:**	24090018
Sample ID:	HS24081709-28	**Lab ID:**	24090018-28
Collection Date:	8/28/2024 11:10 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **QTN**
Fluoride	**0.360**		**0.10**	**mg/L**	1	9/9/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 10-Sep-24

Client: ALS Environmental
Work Order: 24090018
Project: HS24081709

QC BATCH REPORT

Batch ID: **R411177A** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK	Sample ID: **MB-R411177-R411177A**				Units: **mg/L**		Analysis Date: **9/9/2024 09:19 AM**			
Client ID:	Run ID: **TITRATOR 1_240909A**				SeqNo: **11101248**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	ND	0.10								

LCS	Sample ID: **LCS-R411177-R411177A**				Units: **mg/L**		Analysis Date: **9/9/2024 09:19 AM**			
Client ID:	Run ID: **TITRATOR 1_240909A**				SeqNo: **11101249**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.09	0.10	5	0	102	90-111	0			

MS	Sample ID: **24090018-05AMS**				Units: **mg/L**		Analysis Date: **9/9/2024 09:19 AM**			
Client ID: **HS24081709-05**	Run ID: **TITRATOR 1_240909A**				SeqNo: **11101261**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.41	0.10	5	0.13	106	90-111	0			

MSD	Sample ID: **24090018-05AMSD**				Units: **mg/L**		Analysis Date: **9/9/2024 09:19 AM**			
Client ID: **HS24081709-05**	Run ID: **TITRATOR 1_240909A**				SeqNo: **11101262**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.44	0.10	5	0.13	106	90-111	5.41	0.553	20	

The following samples were analyzed in this batch:

24090018-01A	24090018-02A	24090018-03A
24090018-04A	24090018-05A	24090018-06A
24090018-07A	24090018-08A	24090018-09A
24090018-10A	24090018-11A	24090018-12A
24090018-13A	24090018-14A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R411177B** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R411177-R411177B** Units: **mg/L** Analysis Date: **9/9/2024 09:19 AM**
Client ID: Run ID: **TITRATOR 1_240909A** SeqNo: **11101272** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	ND	0.10								

LCS Sample ID: **LCS-R411177-R411177B** Units: **mg/L** Analysis Date: **9/9/2024 09:19 AM**
Client ID: Run ID: **TITRATOR 1_240909A** SeqNo: **11101273** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.97	0.10	5	0	99.4	90-111	0			

MS Sample ID: **24090018-19AMS** Units: **mg/L** Analysis Date: **9/9/2024 09:19 AM**
Client ID: **HS24081709-19** Run ID: **TITRATOR 1_240909A** SeqNo: **11101279** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.68	0.10	5	0.39	106	90-111	0			

MSD Sample ID: **24090018-19AMSD** Units: **mg/L** Analysis Date: **9/9/2024 09:19 AM**
Client ID: **HS24081709-19** Run ID: **TITRATOR 1_240909A** SeqNo: **11101280** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.66	0.10	5	0.39	105	90-111	5.68	0.353	20	

The following samples were analyzed in this batch:

24090018-15A	24090018-16A	24090018-17A
24090018-18A	24090018-19A	24090018-20A
24090018-21A	24090018-22A	24090018-23A
24090018-24A	24090018-25A	24090018-26A
24090018-27A	24090018-28A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

24090018
ALS - HOUSTON: ALS Environmental
Project: HS26806

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLING STATE: **Texas** **COC ID: 26806**

SUBCONTRACT TO:

ALS Group USA, Corp.
3352 - 128th Ave
Holland, MI 494249263

Phone: +1 616 399 6070

CUSTOMER INFORMATION:		**INVOICE INFORMATION:**	
Company:	ALS Houston	**Company:**	ALS Houston
Contact:	Andy C. Neir	**Contact:**	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210	**Address:**	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656	**Phone:**	+1 281 530 5656
Email:	Andrew.Neir@ALSGlobal.com	**Reference:**	HS24081709
Alternate Contact:	Jumoke M. Lawal	**TSR:**	Sonia West
Email:	jumoke.lawal@alsglobal.com		

	LAB SAMPLE ID / ANALYSIS REQUESTED	CLIENT SAMPLE ID	MATRIX	COLLECT DATE / DUE DATE
1.	**HS24081709-01**	**MW-39R**	**Water**	**28 Aug 2024 08:45**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
2.	**HS24081709-02**	**MW-40**	**Water**	**28 Aug 2024 11:20**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
3.	**HS24081709-03**	**MW-41**	**Water**	**28 Aug 2024 10:10**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
4.	**HS24081709-04**	**MW-62**	**Water**	**28 Aug 2024 08:05**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
5.	**HS24081709-05**	**MW-63**	**Water**	**28 Aug 2024 09:20**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
6.	**HS24081709-06**	**MW-64**	**Water**	**28 Aug 2024 10:45**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
7.	**HS24081709-07**	**MW-23R**	**Water**	**28 Aug 2024 12:05**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
8.	**HS24081709-08**	**MW-28D**	**Water**	**28 Aug 2024 10:00**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
9.	**HS24081709-09**	**MW-42**	**Water**	**28 Aug 2024 12:30**

24090018

ALS - HOUSTON: ALS Environmental
Project: HS26806

Subcontract

SAMPLING STATE: **Texas** **COC ID: ...06**

	LAB SAMPLE ID / ANALYSIS REQUESTED	CLIENT SAMPLE ID	MATRIX	COLLECT DATE / DUE DATE
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
10.	**HS24081709-10**	**MW-43**	**Water**	**28 Aug 2024 12:50**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
11.	**HS24081709-11**	**MW-44**	**Water**	**28 Aug 2024 12:30**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
12.	**HS24081709-12**	**MW-46R**	**Water**	**28 Aug 2024 11:55**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
13.	**HS24081709-13**	**MW-47**	**Water**	**28 Aug 2024 11:20**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
14.	**HS24081709-14**	**MW-48**	**Water**	**28 Aug 2024 10:40**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
15.	**HS24081709-15**	**MW-50**	**Water**	**28 Aug 2024 12:00**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
16.	**HS24081709-16**	**MW-52**	**Water**	**28 Aug 2024 12:40**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
17.	**HS24081709-17**	**MW-54**	**Water**	**28 Aug 2024 08:25**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
18.	**HS24081709-18**	**MW-55R**	**Water**	**28 Aug 2024 09:15**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
19.	**HS24081709-19**	**MW-58**	**Water**	**28 Aug 2024 11:40**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
20.	**HS24081709-20**	**MW-65**	**Water**	**28 Aug 2024 09:55**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
21.	**HS24081709-21**	**MW-36**	**Water**	**28 Aug 2024 08:55**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
22.	**HS24081709-22**	**MW-37**	**Water**	**28 Aug 2024 10:35**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
23.	**HS24081709-23**	**MW-38R**	**Water**	**28 Aug 2024 11:15**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
24.	**HS24081709-24**	**MW-60**	**Water**	**28 Aug 2024 08:15**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID: 26806**

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
25.	**HS24081709-25**	**MW-61**	**Water**	**28 Aug 2024 09:45**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
26.	**HS24081709-26**	**Field Blank-01**	**Water**	**28 Aug 2024 10:00**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
27.	**HS24081709-27**	**Field Duplicate-1**	**Water**	**28 Aug 2024 11:00**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024
28.	**HS24081709-28**	**Field Duplicate-2**	**Water**	**28 Aug 2024 11:10**
	Fluoride by ISE 4500. Equis EDD			05 Sep 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.
HS24081709-05 AND HS24081709-19 MS/MSD

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

24090018
ALS - HOUSTON: ALS Environmental
Project: HS26806

Relinquished By: [signature] Date/Time: 8/29/24 1200

Received By: [signature] Date/Time: 8/31/24 930

Cooler ID(s): Temperature(s): 4.5°C DF2

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **31-Aug-24 09:30**

Work Order: **24090018** Received by: **WSK**

Checklist completed by: Weston Kotecki (eSignature) 04-Sep-24 (Date) Reviewed by: Chelsey Cook (eSignature) 05-Sep-24 (Date)

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.5/4.5C	DF2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/4/2024 9:37:11 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

November 20, 2024

Lori Burris
TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079

Work Order: **HS24091436**

Laboratory Results for: **WA Parish CCR Program Resample**

Dear Lori Burris,

ALS Environmental received 7 sample(s) on Sep 26, 2024 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL

Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:
a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _______________ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Andy C. Neir

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				2
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			3
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			4
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 10/11/2024
Project Name: WA Parish CCR Program Resample	Laboratory Job Number: HS24091436
Reviewer Name: Andy Neir	Prep Batch Number(s): 218701, R478809, R479346

ER#[5]	Description
1	Batch 218701, Metals by method SW6020, Sample HS24100144-07, MS and MSD were performed on an unrelated sample. Batch R479346, Anions by method E300.0, Sample MW-63, MS/MSD recovered outside control limits for sulfate however, the result in the parent sample is 4x greater than the spike amount
2	Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701 Revised final on 10/24/2024 to report calcium for sample MW-23R.
2	See Run Log and CCB Exception Reports
3	Batch 218701, Metals by method SW6020, Sample HS24100144-07, PDS was performed on an unrelated sample.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Oct-2024 10:34	018_ICV.d	B CA
LLICV2	1	09-Oct-2024 10:43	020LCV2.d	B
LLICV5	1	09-Oct-2024 10:45	021LCV5.d	B
ICB	1	09-Oct-2024 10:50	023_ICB.d	B CA
ICSA	1	09-Oct-2024 10:53	024ICSA.d	B
ICSAB	1	09-Oct-2024 10:55	025ICSB.d	B
CCV 1	1	09-Oct-2024 11:04	028_CCV.d	B CA
CCB 1	1	09-Oct-2024 11:06	029_CCB.d	B CA
CCV 2	1	09-Oct-2024 11:33	040_CCV.d	B CA
CCB 2	1	09-Oct-2024 11:35	041_CCB.d	B CA
CCV 3	1	09-Oct-2024 12:02	052_CCV.d	B CA
CCB 3	1	09-Oct-2024 12:05	053_CCB.d	B CA
CCV 4	1	09-Oct-2024 12:31	064_CCV.d	B CA
CCB 4	1	09-Oct-2024 12:34	065_CCB.d	B CA
CCV 5	1	09-Oct-2024 13:00	076_CCV.d	B CA
CCB 5	1	09-Oct-2024 13:03	077_CCB.d	B CA
CCV 6	1	09-Oct-2024 13:30	088_CCV.d	B CA
CCB 6	1	09-Oct-2024 13:42	091_CCB.d	B CA
CCV 7	1	09-Oct-2024 14:08	102_CCV.d	B CA
CCB 7	1	09-Oct-2024 14:10	103_CCB.d	B CA
CCV 8	1	09-Oct-2024 14:37	114_CCV.d	B CA
CCB 8	1	09-Oct-2024 14:39	115_CCB.d	B CA
CCV 9	1	09-Oct-2024 15:05	126_CCV.d	B CA
CCB 9	1	09-Oct-2024 15:08	127_CCB.d	B CA
CCV 10	1	09-Oct-2024 15:40	138_CCV.d	B CA
CCB 10	1	09-Oct-2024 15:42	139_CCB.d	B CA
CCV 11	1	09-Oct-2024 16:09	150_CCV.d	B CA
CCB 11	1	09-Oct-2024 16:11	151_CCB.d	B CA
CCV 12	1	09-Oct-2024 16:38	162_CCV.d	B CA
CCB 12	1	09-Oct-2024 16:40	163_CCB.d	B CA
CCV 13	1	09-Oct-2024 20:06	177_CCV.d	B CA
CCB 13	1	09-Oct-2024 20:08	178_CCB.d	B CA
CCV 14	1	09-Oct-2024 20:35	189_CCV.d	B CA
CCB 14	1	09-Oct-2024 20:37	190_CCB.d	B CA
CCV 15	1	09-Oct-2024 20:59	199_CCV.d	B CA
CCB 15	1	09-Oct-2024 21:01	200_CCB.d	B CA
MBLK-218701	1	09-Oct-2024 21:04	201SMPL.d	B CA
LCS-218701	1	09-Oct-2024 21:06	202SMPL.d	B CA
CCV 16	1	09-Oct-2024 21:09	203_CCV.d	B CA
CCB 16	1	09-Oct-2024 21:12	204_CCB.d	B CA
ZZZZZZZSD	5	09-Oct-2024 21:17	206SMPL.d	CA
ZZZZZZZMS	1	09-Oct-2024 21:19	207SMPL.d	B CA
ZZZZZZZMSD	1	09-Oct-2024 21:22	208SMPL.d	B CA
ZZZZZZZPDS	1	09-Oct-2024 21:24	209SMPL.d	B CA
CCV 17	1	09-Oct-2024 21:29	211_CCV.d	B CA
CCB 17	1	09-Oct-2024 21:31	212_CCB.d	B CA
MW-63	1	09-Oct-2024 21:34	213SMPL.d	B
MW-37	1	09-Oct-2024 21:41	216SMPL.d	B
MW-38R	1	09-Oct-2024 21:43	217SMPL.d	B
CCV 18	1	09-Oct-2024 21:55	222_CCV.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCB 18	1	09-Oct-2024 21:58	223_CCB.d	B CA
CCV 19	1	09-Oct-2024 22:15	230_CCV.d	B CA
CCB 19	1	09-Oct-2024 22:17	231_CCB.d	B CA
CCV 20	1	09-Oct-2024 22:36	239_CCV.d	B CA
CCB 20	1	09-Oct-2024 22:39	240_CCB.d	B CA
CCV 21	1	09-Oct-2024 23:10	249_CCV.d	B CA
CCB 21	1	09-Oct-2024 23:13	250_CCB.d	B CA
CCV 22	1	09-Oct-2024 23:32	258_CCV.d	B CA
CCB 22	1	09-Oct-2024 23:35	259_CCB.d	B CA
ICSA	1	09-Oct-2024 23:37	260ICSA.d	B
ICSAB	1	09-Oct-2024 23:40	261ICSB.d	B
CCV 23	1	09-Oct-2024 23:45	263_CCV.d	B CA
CCB 23	1	09-Oct-2024 23:47	264_CCB.d	B CA
CCV 24	1	10-Oct-2024 00:09	273_CCV.d	B CA
CCB 24	1	10-Oct-2024 00:12	274_CCB.d	B CA
CCV 25	1	10-Oct-2024 00:24	279_CCV.d	B CA
CCB 25	1	10-Oct-2024 00:26	280_CCB.d	B CA
CCV 26	1	10-Oct-2024 00:48	289_CCV.d	B CA
CCB 26	1	10-Oct-2024 00:50	290_CCB.d	B CA
CCV 27	1	10-Oct-2024 01:12	299_CCV.d	B CA
CCB 27	1	10-Oct-2024 01:15	300_CCB.d	B CA
CCV 28	1	10-Oct-2024 01:39	310_CCV.d	B CA
CCB 28	1	10-Oct-2024 01:42	311_CCB.d	B CA
LLCCV2	1	10-Oct-2024 01:47	313LCV2.d	B
LLCCV5	1	10-Oct-2024 01:49	314LCV5.d	B
ICSA	1	10-Oct-2024 01:51	315ICSA.d	B
ICSAB	1	10-Oct-2024 01:54	316ICSB.d	B

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

CCB 3 Date: 09-Oct-2024 12:05 Seq: 8300328 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.15	11	20

CCB 4 Date: 09-Oct-2024 12:34 Seq: 8300461 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	14.24	11	20

CCB 7 Date: 09-Oct-2024 14:10 Seq: 8300842 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	17.62	11	20

CCB 12 Date: 09-Oct-2024 16:40 Seq: 8301900 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	14.65	11	20

CCB 13 Date: 09-Oct-2024 20:08 Seq: 8301918 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Calcium	85.71	34	500

CCB 14 Date: 09-Oct-2024 20:37 Seq: 8301930 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	14.96	11	20

CCB 15 Date: 09-Oct-2024 21:01 Seq: 8301940 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	17.6	11	20

CCB 16 Date: 09-Oct-2024 21:12 Seq: 8302069 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	17	11	20

CCB 17 Date: 09-Oct-2024 21:31 Seq: 8302077 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	29.94	11	20

CCB 18 Date: 09-Oct-2024 21:58 Seq: 8302088 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	17.38	11	20

CCB 21 Date: 09-Oct-2024 23:13 Seq: 8302110 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.93	11	20

CCB 22 Date: 09-Oct-2024 23:35 Seq: 8302119 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	23.51	11	20

CCB 23 Date: 09-Oct-2024 23:47 Seq: 8302124 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	18.85	11	20

CCB 24 Date: 10-Oct-2024 00:12 Seq: 8302094 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Analyte	Result	MDL	Report Limit
Boron	14.91	11	20

CCB 25 Date: 10-Oct-2024 00:26 Seq: 8302100 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.64	11	20

CCB 26 Date: 10-Oct-2024 00:50 Seq: 8302213 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	25.85	11	20

CCB 27 Date: 10-Oct-2024 01:15 Seq: 8302187 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	31.93	11	20

CCB 28 Date: 10-Oct-2024 01:42 Seq: 8302198 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	60.9	11	20

Client: TRC
Project: WA Parish CCR Program Resample
Work Order: HS24091436

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24091436-01	MW-63	Water		26-Sep-2024 10:35	26-Sep-2024 12:03	☐
HS24091436-02	MW-64	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐
HS24091436-03	MW-37	Water		26-Sep-2024 08:35	26-Sep-2024 12:03	☐
HS24091436-04	MW-38R	Water		26-Sep-2024 09:15	26-Sep-2024 12:03	☐
HS24091436-05	MW-61	Water		26-Sep-2024 09:50	26-Sep-2024 12:03	☐
HS24091436-06	MW-23R	Water		26-Sep-2024 11:00	26-Sep-2024 12:03	☐
HS24091436-07	MW-65	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐

Client: TRC

Project: WA Parish CCR Program Resample

Work Order: HS24091436

CASE NARRATIVE

Work Order Comments

- Revised final on 10/24/2024 to report calcium for sample MW-23R.

- Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-63		Lab ID:HS24091436-01
Collection Date:	26-Sep-2024 10:35		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.262**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:34
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**609**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:12

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-64		Lab ID:HS24091436-02
Collection Date:	26-Sep-2024 08:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**259**		**3.40**	**50.0**	**mg/L**	100	10-Oct-2024 12:15

Client: TRC
Project: WA Parish CCR Program Resample
Sample ID: MW-37
Collection Date: 26-Sep-2024 08:35

ANALYTICAL REPORT
WorkOrder:HS24091436
Lab ID:HS24091436-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		Method:SW6020A			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	0.482		0.0110	0.0200	mg/L	1	09-Oct-2024 21:41
ANIONS BY E300.0, REV 2.1, 1993		Method:E300					Analyst: TH
Sulfate	1,400		4.00	10.0	mg/L	20	07-Oct-2024 14:29
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		Method:M2540C					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	1,710		5.00	10.0	mg/L	1	02-Oct-2024 08:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-38R		Lab ID:HS24091436-04
Collection Date:	26-Sep-2024 09:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.390**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:43
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**776**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:35

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-61		Lab ID:HS24091436-05
Collection Date:	26-Sep-2024 09:50		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**1.13**		**0.220**	**0.400**	**mg/L**	20	10-Oct-2024 12:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,360**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 14:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	**1,940**		**5.00**	**10.0**	**mg/L**	1	02-Oct-2024 08:00

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-23R		Lab ID:HS24091436-06
Collection Date:	26-Sep-2024 11:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**503**		**3.40**	**50.0**	**mg/L**	100	21-Oct-2024 14:20
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1,060**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16
Sulfate	**1,640**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-65		Lab ID:HS24091436-07
Collection Date:	26-Sep-2024 08:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**775**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 15:22

Weight / Prep Log

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Batch ID: 218701 **Start Date:** 08 Oct 2024 12:30 **End Date:** 08 Oct 2024 12:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 219320 **Start Date:** 21 Oct 2024 08:00 **End Date:** 21 Oct 2024 08:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 218701 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35		08 Oct 2024 12:30	09 Oct 2024 21:34	1
HS24091436-02	MW-64	26 Sep 2024 08:00		08 Oct 2024 12:30	10 Oct 2024 12:15	100
HS24091436-03	MW-37	26 Sep 2024 08:35		08 Oct 2024 12:30	09 Oct 2024 21:41	1
HS24091436-04	MW-38R	26 Sep 2024 09:15		08 Oct 2024 12:30	09 Oct 2024 21:43	1
HS24091436-05	MW-61	26 Sep 2024 09:50		08 Oct 2024 12:30	10 Oct 2024 12:13	20
HS24091436-06	MW-23R	26 Sep 2024 11:00		08 Oct 2024 12:30	21 Oct 2024 14:20	100
Batch ID: R478809 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24091436-03	MW-37	26 Sep 2024 08:35			02 Oct 2024 08:00	1
HS24091436-05	MW-61	26 Sep 2024 09:50			02 Oct 2024 08:00	1
Batch ID: R479346 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35			07 Oct 2024 14:12	10
HS24091436-03	MW-37	26 Sep 2024 08:35			07 Oct 2024 14:29	20
HS24091436-04	MW-38R	26 Sep 2024 09:15			07 Oct 2024 14:35	10
HS24091436-05	MW-61	26 Sep 2024 09:50			07 Oct 2024 14:41	20
HS24091436-06	MW-23R	26 Sep 2024 11:00			07 Oct 2024 15:16	20
HS24091436-07	MW-65	26 Sep 2024 08:00			07 Oct 2024 15:22	10

WorkOrder: HS24091436
InstrumentID: ICPMS07
Test Code: ICP_TW
Test Number: SW6020A
Test Name: ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0125	0.0140	0.0110	0.0200
A	Calcium	7440-70-2	1.00	0.990	0.0340	0.500

WorkOrder: HS24091436
InstrumentID: ICS-Integrion
Test Code: 300_W
Test Number: E300
Test Name: Anions by E300.0, Rev 2.1, 1993

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Chloride	16887-00-6	0.500	0.511	0.200	0.500
A	Sulfate	14808-79-8	0.500	0.621	0.200	0.500

WorkOrder: HS24091436
InstrumentID: Balance1
Test Code: TDS_W 2540C
Test Number: M2540C
Test Name: Total Dissolved Solids by SM2540C

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Total Dissolved Solids (Residue, Filterable)	TDS	10.0	2.00	5.00	10.0

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:04**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302066** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.0163	0.0200								J
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:06**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302067** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4685	0.0200	0.5	0	93.7	80 - 120				
Calcium	4.501	0.500	5	0	90.0	80 - 120				

MS Sample ID: **HS24100144-07MS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:19**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302072** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5665	0.0200	0.5	0.115	90.3	80 - 120				
Calcium	162.6	0.500	5	163	-8.05	80 - 120				SO

MSD Sample ID: **HS24100144-07MSD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:22**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302073** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5982	0.0200	0.5	0.115	96.6	80 - 120	0.5665	5.44	20	
Calcium	170.1	0.500	5	163	143	80 - 120	162.6	4.53	20	SO

PDS Sample ID: **HS24100144-07PDS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:24**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302074** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6489	0.0200	0.5	0.115	107	75 - 125				
Calcium	162.5	0.500	10	163	-5.02	75 - 125				SO

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24100144-07SD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:17**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302071** PrepDate: **08-Oct-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	177.9	2.50					163	9.13	10	

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-02	HS24091436-03	HS24091436-04
HS24091436-05	HS24091436-06		

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: R478809 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286792** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286791** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	922	10.0	1000	0	92.2	85 - 115				

DUP Sample ID: **HS24091533-01 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286789** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	266	10.0					274	2.96	20	

DUP Sample ID: **HS24091489-02 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286786** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	444	10.0					472	6.11	20	

The following samples were analyzed in this batch: HS24091436-03 HS24091436-05

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: R479346 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **07-Oct-2024 13:43**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298530** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **07-Oct-2024 13:54**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298531** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.29	0.500	20	0	101	90 - 110				
Sulfate	21.82	0.500	20	0	109	90 - 110				

MS Sample ID: **HS24091436-01MS** Units: **mg/L** Analysis Date: **07-Oct-2024 14:18**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298535** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	332.8	5.00	100	227.9	105	80 - 120				
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120				SO

MSD Sample ID: **HS24091436-01MSD** Units: **mg/L** Analysis Date: **07-Oct-2024 14:24**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298536** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	335.5	5.00	100	227.9	108	80 - 120	332.8	0.829	20	
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120	688.1	0.00814	20	SO

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-03	HS24091436-04	HS24091436-05
HS24091436-06	HS24091436-07		

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: **HS24091436**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

Sample Receipt Checklist

Work Order ID: HS24091436 **Date/Time Received:** 26-Sep-2024 12:03

Client Name: TRC-HOU **Received by:** Jacob Coronado

Completed By: /S/ Kaycee Rogers	26-Sep-2024 20:52	**Reviewed by:** /S/ Alexis Dorenbosch	27-Sep-2024 11:38
eSignature	Date/Time	eSignature	Date/Time

Matrices: **W** Carrier name: **Client**

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☐	☑
Chain of custody present?	☑	☐	1 Page(s)
Chain of custody signed when relinquished and received?	☑	☐	
Samplers name present on COC?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	1.3UC/1.3C	IR 34
Cooler(s)/Kit(s):	BLUE	
Date/Time sample(s) sent to storage:	09/26/2024 2052	

	Yes	No	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☑	☐	N/A ☐
pH adjusted?	☐	☑	N/A ☐

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS Laboratory Group
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

HS24091436
TRC
WA Parish CCR Program Resample

ALS Project Manager:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	211381	Project Name	WA Parish CCR Program Resample	A	ICP_TW (Boron) - Appendix III
Work Order		Project Number	528472.0000.0000	B	ICP_TW (Calcium) - Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	300_W (Chloride) - Appendix III
Send Report To	Lori Burris	Invoice Attn.	A/P	D	300_W (SO4) - Appendix III
Address	14701 St Mary's Lane Suite 500	Address	14701 St Mary's Lane Suite 500	E F	TDS_W 2540C (TDS) - Appendix III
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston, TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	Lburris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-63	9-26-24	1035	Water	2,8	2	X			X							
2	MW-64		800	Water	2	1		X									
3	MW-37		835	Water	2,8	3	X			X	X						
4	MW-38R		915	Water	2,8	2	X			X							
5	MW-61		950	Water	2,8	3	X			X	X						
6	MW-23R		1100	Water	2,8	2		X	X	X							
7	MW-65		800	Water	8	1				X							
8																	
9																	
10																	

Sampler(s): Please Print & Sign	Shipment Method:	Required Turnaround Time:	Results Due Date:
Mason Bond + HMT Team	Drop off @ lab	☐ STD 10 Wk Days ☑ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other ______	

Relinquished by:	Date:	Time:	Received by:	Notes:
Ilyas Sediqui	9-26-24	1203		NRG CCR - Priviledged and Confidential
Relinquished by:	Date: 9-26-24	Time: 1203	Received by (Laboratory):	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): Blue	1.3

QC Package: (Check Box Below)

X	Level II: Standard QC		TRRP-Checklist
	Level III: Std QC + Raw Data		TRRP Level IV
	Level IV: SW846 CLP-Like		
	Other: ______		

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

1235

Privileged and Confidential

ALS
10450 Stancliff Rd., Suit te 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 9-26-24 Time:
Name:
Company:

Seal Broken By:
Date:

9-26-24

Appendix C
Laboratory Data Quality Review

DATA USABILITY SUMMARY

Lori Burris of TRC Environmental Corporation (TRC) reviewed one (1) data package from ALS Global Laboratories (ALS) for the analysis of groundwater samples collected March 1, 2024, at the NRG W.A. Parish Generating Station (Parish) in Thompsons, Texas. Data were reviewed for conformance to the requirements of the guidance document, *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13) (TCEQ 2010). Lori Burris verified that at the time the laboratory data were generated for the project, ALS was NELAC-accredited under the Texas Laboratory Accreditation Program for the matrices, analytes, and methods of analysis requested on the chain-of-custody documentation. ALS's National Environmental Laboratory Accreditation Program (NELAP) certification is included in the laboratory data package.

Intended Use of Data: To provide current data on concentrations of chemicals of concern (COCs) in the groundwater at the property. These data are used for compliance with the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) Coal Combustion Residuals (CCR) detection monitoring programs. Data are also used for statistical analysis of potential statistically significant increases (SSIs).

Analyses requested included:

- ◊ EPA 300.0 – Inorganic Anions (Chloride and Sulfate) by ion chromatography;
- ◊ SM A4500-F C-11 – Anions (Fluoride) by ion selective electrode;
- ◊ SW-846 6020A – Metals (Boron and Calcium) by inductively coupled plasma-mass spectrometry (ICP/MS); and
- ◊ SM2540C – Total Dissolved Solids (TDS) by drying.

Data were reviewed and validated as described in *Review and Reporting of COC Concentration Data,* (RG-366/TRRP-13) and the results of the review/validation are discussed in this DUS.

The following laboratory submittals and field data were examined:

- ◊ the reportable data,
- ◊ the laboratory review checklists, and
- ◊ field sampling logs.

The results of supporting quality control (QC) analyses were summarized on the Laboratory Review Checklist (LRC) and Exception Report (ER) in the analytical report which was included in this review.

The LRC, associated ER, and reportable data included in this review are attached to this Data Usability Summary (DUS).

DATA REVIEW/VALIDATION RESULTS

Introduction

Twenty-five (25) groundwater samples, two (2) field duplicate samples and one (1) field blank were analyzed for anions (chloride, sulfate, and fluoride), metals (boron and calcium) and TDS. Table 1 lists the field identifications cross-referenced to laboratory identifications.

Analytical Results

The data package contains a minimum of one (1) quality control batch per analytical method analyzed. The quality control batch identifies the laboratory QC samples that correspond to the designated field samples. Not-detected results are reported as less than the value of the sample detection limit (SDL) as defined by the TRRP rule. The project Sampling and Analysis Plan (SAP) states that quality control percent recoveries of 70% to 130% indicate sufficient accuracy and a relative percent difference (RPD) of 30% indicates adequate precision. Therefore, these limits were used for comparison during this review for accuracy and precision. Data qualified as part of this review are included in Table 2.

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody. The samples were received in the appropriate containers with the paperwork filled out properly. The laboratory sample receipt checklist stated the samples were received at temperatures of 3.1 and 2.7°C. Samples were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial calibration data met EPA, Standard Method (SM) and SW-846 Method requirements for sulfate, fluoride and TDS.

Low levels of chloride, sulfate, calcium and boron were detected in several continuing calibration blanks (CCBs). The associated samples were reported with detections of chloride, sulfate, calcium and boron greater than 5X the CCB concentration and were not qualified.

Blanks

Chloride, sulfate, fluoride, boron, calcium and TDS were reported as not-detected in the method blanks.

The Field Blank was reported as detected for boron (0.0487 mg/L), calcium (0.135 J mg/L), chloride (1.12 mg/L), sulfate (0.739 mg/L) and TDS (8.00 J mg/L). Associated samples were reported as detected for calcium, chloride, sulfate and TDS greater than 2X the field blank concentration and did not require qualification. Samples MW-41, MW-62, MW-64, MW-36 and Field Duplicate-1 were reported as detected for boron less than 2X the field blank concentration and were qualified as not-detected (U), due to field blank contamination.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for anions, metals, and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for fluoride analyzed on site samples MW-63 and MW-58 were within acceptance criteria. Chloride/sulfate MS/MSD analyzed on site sample MW-58 was within acceptance criteria. Fluoride batch R397873 MS/MSD was analyzed on a sample that is not part of the CCR monitoring well network and was not evaluated. MS/MSD analysis is not a requirement of TDS method SM2540C.

Metals MS/MSD batches 208402 and 208403 analyzed on site samples MW-58 and MW-63 had calcium recovery outside acceptance criteria. However, the MS/MSD spike amounts for calcium were less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, data were not qualified.

Chloride/Sulfate MS/MSD batch R460555 analyzed on site sample MW-58 had chloride recovery outside acceptance criteria. In addition, chloride/sulfate MS/MSD batch R460556 analyzed on site sample MW-37 had sulfate recovery outside acceptance criteria. However, the MS/MSD spike amounts for chloride and sulfate were less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, data were not qualified.

Post Digestion Spike and Serial Dilution

The post digestion spike (PDS) and serial dilution (SD) for metals batch 208402 analyzed on site sample MW-63 were within acceptance criteria.

Metals batch 208403 PDS and SD analyzed on site sample MW-58 was within acceptance criteria for SD. The PDS had calcium recovery outside acceptance criteria. However, the spike amount for calcium was less than 4X the unspiked parent sample and was not evaluated.

Laboratory Duplicates

Laboratory duplicates for TDS were within QC acceptance criteria.

Field Precision

Two (2) field duplicate samples were included in this data package (MW-36/Field Duplicate 1 and MW-44/Field Duplicate 2). Both sample and duplicate, MW-36/Field Duplicate 1, were reported as detected for metals, anions, and TDS. However, the boron detections in MW-36 and Field Duplicate-1 were determined to be caused by field blank contamination; therefore, boron was not evaluated for field precision. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30% for the listed compounds.

Sample and duplicate, MW-44/Field Duplicate 2 were reported as detected for metals, anions, and TDS. The RPD between sample and duplicate was within the QC acceptance criteria of 30% for the listed compounds, except for fluoride which was outside acceptance criteria. Samples MW-44 and Field Duplicate-2 were qualified as estimated (J) for fluoride, due to sample/duplicate precision outside acceptance criteria.

Sample/duplicate precision calculations are included in Table 3.

Summary

The groundwater analytical data are usable for the purpose of determining current concentrations of COCs in this medium at the Parish site.

The data user is advised that samples MW-41, MW-62, MW-64, MW-36 and Field Duplicate-1 were reported as detected for boron less than 2X the field blank concentration and were qualified as not-detected (U), due to field blank contamination. Samples MW-44 and Field Duplicate-2 were qualified as estimated (J) for fluoride, due to sample/duplicate precision outside acceptance criteria.

References:

TCEQ. 2010. TRRP 13: Review and Reporting of COC Concentration Data. Texas Commission for Environmental Quality, Austin, Texas.

Environmental Resources Management (ERM). October 2017. Sampling and Analysis Plan. W.A. Parish Electric Generating Station, Thompsons, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24030094-01	MW-39R	Groundwater
HS24030094-02	MW-40	Groundwater
HS24030094-03	MW-41	Groundwater
HS24030094-04	MW-62	Groundwater
HS24030094-05	MW-63	Groundwater
HS24030094-06	MW-64	Groundwater
HS24030094-07	MW-23R	Groundwater
HS24030094-08	MW-28D	Groundwater
HS24030094-09	MW-42	Groundwater
HS24030094-10	MW-43	Groundwater
HS24030094-11	MW-44	Groundwater
HS24030094-12	MW-46R	Groundwater
HS24030094-13	MW-47	Groundwater
HS24030094-14	MW-48	Groundwater
HS24030094-15	MW-50	Groundwater
HS24030094-16	MW-52	Groundwater
HS24030094-17	MW-54	Groundwater
HS24030094-18	MW-55R	Groundwater
HS24030094-19	MW-58	Groundwater
HS24030094-20	MW-65	Groundwater
HS24030094-21	MW-36	Groundwater
HS24030094-22	MW-37	Groundwater
HS24030094-23	MW-38R	Groundwater
HS24030094-24	MW-60	Groundwater
HS24030094-25	MW-61	Groundwater
HS24030094-26	Field Blank-01	Water
HS24030094-27	Field Duplicate-1	Groundwater

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24030094-28	Field Duplicate-2	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
MW-41 MW-62 MW-64 MW-36 Field Duplicate-1	Boron	U	Field blank contamination.
MW-44 Field Duplicate-2	Fluroide	J	Sample/duplicate precision outside acceptance criteria.

U – Not-detected

J – Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.

UJ – The analyte was analyzed for but was not detected above the reported sample detection limit. The associated value is an estimate and may be inaccurate or imprecise.

L – Bias in sample, likely to be low.

H – Bias in sample likely to be high.

Table 3 – Field Precision

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD[a]	Qualified
MW-36 / Field Duplicate-1	Calcium	240	218	10	A
	Chloride	296	294	1	A
	Sulfate	425	421	1	A
	TDS	1,470	1,410	4	A
	Fluoride	0.28	0.28	0	A
MW-44 / Field Duplicate22	Boron	0.219	0.242	10	A
	Calcium	120	104	14	A
	Chloride	227	228	0	A
	Sulfate	125	127	2	A
	TDS	912	1,070	16	A
	Fluoride	0.47	0.30	44	X

[a] RPD = ((SR - DR)*200)/(SR + DR)
A - Acceptable Data.
A* - Acceptable Data where results were less than 5X the MQL and the difference between sample and duplicate was less than 2X the MQL.
X – Outside the TRRP-13/SAP acceptance criteria of 30% RPD.
J – Estimated detected.
U – Notdetected.

DATA USABILITY SUMMARY

Lori Burris of TRC Environmental Corporation (TRC) reviewed one (1) data package from ALS Global Laboratories (ALS) for the analysis of groundwater samples collected March 29, 2024, at the NRG W.A. Parish Generating Station (Parish) in Thompsons, Texas. Data were reviewed for conformance to the requirements of the guidance document, *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13) (TCEQ 2010). Lori Burris verified that at the time the laboratory data were generated for the project, ALS was NELAC-accredited under the Texas Laboratory Accreditation Program for the matrices, analytes, and methods of analysis requested on the chain-of-custody documentation. ALS's National Environmental Laboratory Accreditation Program (NELAP) certification is included in the laboratory data package.

Intended Use of Data: To provide current data on concentrations of chemicals of concern (COCs) in the groundwater at the property. These data are used for compliance with the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) Coal Combustion Residuals (CCR) detection monitoring programs. Data are also used for statistical analysis of potential statistically significant increases (SSI).

Analyses requested included:

- EPA 300.0 – Inorganic Anions (Sulfate) by ion chromatography;
- SW-846 6020A – Metals (Boron and Calcium) by inductively coupled plasma-mass spectrometry (ICP/MS); and
- SM2540C – Total Dissolved Solids (TDS) by drying.

Data were reviewed and validated as described in *Review and Reporting of COC Concentration Data,* (RG-366/TRRP-13) and the results of the review/validation are discussed in this DUS.

The following laboratory submittals and field data were examined:

- the reportable data,
- the laboratory review checklists, and
- field sampling logs.

The results of supporting quality control (QC) analyses were summarized on the Laboratory Review Checklist (LRC) and Exception Report (ER) in the analytical report which was included in this review.

The LRC, associated ER, and reportable data included in this review are attached to this Data Usability Summary (DUS).

DATA REVIEW/VALIDATION RESULTS

Introduction

Five (5) groundwater samples were analyzed for one or more of the following: sulfate, boron, calcium and TDS. Table 1 lists the field identifications cross-referenced to laboratory identifications.

Analytical Results

The data package contains a minimum of one (1) quality control batch per analytical method analyzed. The quality control batch identifies the laboratory QC samples that correspond to the designated field samples. Not-detected results are reported as less than the value of the sample detection limit (SDL) as defined by the TRRP rule. The project Sampling and Analysis Plan (SAP) states that quality control percent recoveries of 70% to 130% indicate sufficient accuracy and a relative percent difference (RPD) of 30% indicates adequate precision. Therefore, these limits were used for comparison during this review for accuracy and precision. No data were qualified as part of this review (see Table 2).

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody. The samples were received in the appropriate containers with the paperwork filled out properly, except for MW-23R which was listed with one bottle submitted to the laboratory, but the laboratory received two bottles for MW-23R. The laboratory sample receipt checklist stated the samples were received at a temperature of 3.0°C. Samples were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial calibration data and continuing calibration data met EPA, Standard Method (SM) and SW-846 Method requirements for sulfate, calcium and TDS.

Continuing calibration blanks (CCB) for boron had low level detections. Associated samples were reported as greater than 5X the CCB; therefore, data were not qualified.

Blanks

Sulfate, boron, calcium and TDS were reported as not-detected in the method blanks.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for sulfate, calcium and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for sulfate, boron and calcium were analyzed on samples not associated with the project site and were not evaluated. MS/MSD analysis is not a requirement of TDS method SM2540C.

Post Digestion Spike and Serial Dilution

The post digestion spike (PDS) and serial dilution for boron and calcium were analyzed on a sample not associated with the project site and were not evaluated.

Laboratory Duplicates

Laboratory duplicates for TDS were within QC acceptance criteria.

Field Precision

Field duplicates were not included in this data package.

Summary

The groundwater analytical data are usable for the purpose of determining current concentrations of COCs in this medium at the Parish site.

References:

TCEQ. 2010. TRRP 13: Review and Reporting of COC Concentration Data. Texas Commission for Environmental Quality, Austin, Texas.

Environmental Resources Management (ERM). October 2017. Sampling and Analysis Plan. W.A. Parish Electric Generating Station, Thompsons, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24040046-01	MW-63	Groundwater
HS24040046-02	MW-37	Groundwater
HS24040046-03	MW-38R	Groundwater
HS24040046-04	MW-61	Groundwater
HS24040046-05	MW-23R	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
No data were qualified as part of this review.			

U – Not-detected

J – Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.

UJ – The analyte was analyzed for but was not detected above the reported sample detection limit. The associated value is an estimate and may be inaccurate or imprecise.

L – Bias in sample, likely to be low.

H – Bias in sample likely to be high.

DATA USABILITY SUMMARY

Lori Burris of TRC Environmental Corporation (TRC) reviewed one (1) data package from ALS Global Laboratories (ALS) for the analysis of groundwater samples collected August 28, 2024, at the NRG W.A. Parish Generating Station (Parish) in Thompsons, Texas. Data were reviewed for conformance to the requirements of the guidance document, *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13) (TCEQ 2010). Lori Burris verified that at the time the laboratory data were generated for the project, ALS was NELAC-accredited under the Texas Laboratory Accreditation Program for the matrices, analytes, and methods of analysis requested on the chain-of-custody documentation. ALS's National Environmental Laboratory Accreditation Program (NELAP) certification is included in the laboratory data package.

Intended Use of Data: To provide current data on concentrations of chemicals of concern (COCs) in the groundwater at the property. These data are used for compliance with the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) Coal Combustion Residuals (CCR) detection monitoring programs. Data are also used for statistical analysis of potential statistically significant increases (SSIs).

Analyses requested included:

- EPA 300.0 – Inorganic Anions (Chloride and Sulfate) by ion chromatography;
- SM A4500-F C-11 – Anions (Fluoride) by ion selective electrode;
- SW-846 6020A – Metals (Boron and Calcium) by inductively coupled plasma-mass spectrometry (ICP/MS); and
- SM2540C – Total Dissolved Solids (TDS) by drying.

Data were reviewed and validated as described in *Review and Reporting of COC Concentration Data,* (RG-366/TRRP-13) and the results of the review/validation are discussed in this DUS.

The following laboratory submittals and field data were examined:

- the reportable data,
- the laboratory review checklists, and
- field sampling logs.

The results of supporting quality control (QC) analyses were summarized on the Laboratory Review Checklist (LRC) and Exception Report (ER) in the analytical report which was included in this review.

The LRC, associated ER, and reportable data included in this review are attached to this Data Usability Summary (DUS).

DATA REVIEW/VALIDATION RESULTS

Introduction

Twenty-five (25) groundwater samples, two (2) field duplicate samples and one (1) field blank were analyzed for anions (chloride, sulfate, and fluoride), metals (boron and calcium) and TDS. Table 1 lists the field identifications cross-referenced to laboratory identifications.

Analytical Results

The data package contains a minimum of one (1) quality control batch per analytical method analyzed. The quality control batch identifies the laboratory QC samples that correspond to the designated field samples. Not-detected results are reported as less than the value of the sample detection limit (SDL) as defined by the TRRP rule. The project Sampling and Analysis Plan (SAP) states that quality control percent recoveries of 70% to 130% indicate sufficient accuracy and a relative percent difference (RPD) of 30% indicates adequate precision. Therefore, these limits were used for comparison during this review for accuracy and precision. No data were qualified as part of this review (see Table 2).

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody. The samples were received in the appropriate containers with the paperwork filled out properly. The laboratory sample receipt checklist stated the samples were received at temperatures of 2.6 and 3.5°C. Samples were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial calibration data met EPA, Standard Method (SM) and SW-846 Method requirements for sulfate, fluoride and TDS.

Low levels of calcium and boron were detected in several continuing calibration blanks (CCBs). The associated samples were reported with detections of calcium and boron greater than 5X the CCB concentration and were not qualified.

Blanks

Chloride, sulfate, fluoride, boron, calcium and TDS were reported as not-detected in the method blanks.

The Field Blank was reported as detected for boron (0.0147 J mg/L), calcium (0.281 J mg/L), and TDS (72.0 mg/L). Associated samples were reported as detected for boron, calcium, and TDS greater than 2X the field blank concentration and did not require qualification.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for anions, metals, and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for fluoride analyzed on site samples MW-63 and MW-58 were within acceptance criteria. Chloride/sulfate MS/MSD analyzed on site samples MW-58 and MW-63 were within acceptance criteria. Metals batch 217006 analyzed on site sample MW-58 was within acceptance criteria. Chloride/sulfate batches R476044 and R476185 MS/MSDs were analyzed on samples that are not part of the CCR monitoring well network and were not evaluated. MS/MSD analysis is not a requirement of TDS method SM2540C.

Metals MS/MSD batch 217001 analyzed on site sample MW-63 had calcium recovery outside acceptance criteria. However, the MS/MSD spike amount for calcium was less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, data were not qualified.

Post Digestion Spike and Serial Dilution

The post digestion spike (PDS) and serial dilution (SD) for metals analyzed on site samples MW-58 and MW-63 were within acceptance criteria.

Laboratory Duplicates

Laboratory duplicates for TDS were within QC acceptance criteria.

Field Precision

Two (2) field duplicate samples were included in this data package (MW-36/Field Duplicate 1 and MW-44/Field Duplicate 2). Both sample and duplicate, MW-36/Field Duplicate 1, were reported as detected for metals, anions, and TDS. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30%, except for boron. Boron had elevated RPD. However, the sample/duplicate concentrations were less than 5X the method quantitation limit (MQL) and the difference between sample and duplicate was less than 2X the MQL; therefore, data were not qualified.

Sample and duplicate, MW-44/Field Duplicate 2 were reported as detected for metals, anions, and TDS. The RPD between sample and duplicate was within the QC acceptance criteria of 30% for the listed compounds.

Sample/duplicate precision calculations are included in Table 3.

Summary

The groundwater analytical data are usable for the purpose of determining current concentrations of COCs in this medium at the Parish site.

References:

TCEQ. 2010. TRRP 13: Review and Reporting of COC Concentration Data. Texas Commission for Environmental Quality, Austin, Texas.

Environmental Resources Management (ERM). October 2017. Sampling and Analysis Plan. W.A. Parish Electric Generating Station, Thompsons, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24081709-01	MW-39R	Groundwater
HS24081709-02	MW-40	Groundwater
HS24081709-03	MW-41	Groundwater
HS24081709-04	MW-62	Groundwater
HS24081709-05	MW-63	Groundwater
HS24081709-06	MW-64	Groundwater
HS24081709-07	MW-23R	Groundwater
HS24081709-08	MW-28D	Groundwater
HS24081709-09	MW-42	Groundwater
HS24081709-10	MW-43	Groundwater
HS24081709-11	MW-44	Groundwater
HS24081709-12	MW-46R	Groundwater
HS24081709-13	MW-47	Groundwater
HS24081709-14	MW-48	Groundwater
HS24081709-15	MW-50	Groundwater
HS24081709-16	MW-52	Groundwater
HS24081709-17	MW-54	Groundwater
HS24081709-18	MW-55R	Groundwater
HS24081709-19	MW-58	Groundwater
HS24081709-20	MW-65	Groundwater
HS24081709-21	MW-36	Groundwater
HS24081709-22	MW-37	Groundwater
HS24081709-23	MW-38R	Groundwater
HS24081709-24	MW-60	Groundwater
HS24081709-25	MW-61	Groundwater
HS24081709-26	Field Blank 1	Water
HS24081709-27	Field Duplicate 1	Groundwater

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24081709-28	Field Duplicate 2	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
No data were qualified as part of this review.			

U – Not-detected

J – Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.

UJ – The analyte was analyzed for but was not detected above the reported sample detection limit. The associated value is an estimate and may be inaccurate or imprecise.

L – Bias in sample, likely to be low.

H – Bias in sample likely to be high.

Table 3 – Field Precision

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD[a]	Qualified
MW-36 / Field Duplicate-1	Boron	0.0482	0.0818	52	A*
	Calcium	252	205	21	A
	Chloride	318	311	2	A
	Sulfate	441	436	1	A
	TDS	1,220	1,200	2	A
	Fluoride	0.340	0.320	6	A
MW-44 / Field Duplicate-2	Boron	0.174	0.198	13	A
	Calcium	97.4	101	4	A
	Chloride	226	209	8	A
	Sulfate	97.2	83.0	16	A
	TDS	732	828	12	A
	Fluoride	0.380	0.360	5	A

[a] RPD = ((SR - DR)*200)/(SR + DR)
A - Acceptable Data.
A* - Acceptable Data where results were less than 5X the MQL and the difference between sample and duplicate was less than 2X the MQL.
X – Outside the TRRP-13/SAP acceptance criteria of 30% RPD.
J – Estimated detected.
U – Not-detected.

DATA USABILITY SUMMARY

Lori Burris of TRC Environmental Corporation (TRC) reviewed one (1) data package from ALS Global Laboratories (ALS) for the analysis of groundwater samples collected September 26, 2024, at the NRG W.A. Parish Generating Station (Parish) in Thompsons, Texas. Data were reviewed for conformance to the requirements of the guidance document, *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13) (TCEQ 2010). Lori Burris verified that at the time the laboratory data were generated for the project, ALS was NELAC-accredited under the Texas Laboratory Accreditation Program for the matrices, analytes, and methods of analysis requested on the chain-of-custody documentation. ALS's National Environmental Laboratory Accreditation Program (NELAP) certification is included in the laboratory data package.

Intended Use of Data: To provide current data on concentrations of chemicals of concern (COCs) in the groundwater at the property. These data are used for compliance with the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) Coal Combustion Residuals (CCR) detection monitoring programs. Data are also used for statistical analysis of potential statistically significant increases (SSI).

Analyses requested included:

- EPA 300.0 – Inorganic Anions (Chloride and Sulfate) by ion chromatography;
- SW-846 6020A – Metals (Boron and Calcium) by inductively coupled plasma-mass spectrometry (ICP/MS); and
- SM2540C – Total Dissolved Solids (TDS) by drying.

Data were reviewed and validated as described in *Review and Reporting of COC Concentration Data,* (RG-366/TRRP-13) and the results of the review/validation are discussed in this DUS.

The following laboratory submittals and field data were examined:

- the reportable data,
- the laboratory review checklists, and
- field sampling logs.

The results of supporting quality control (QC) analyses were summarized on the Laboratory Review Checklist (LRC) and Exception Report (ER) in the analytical report which was included in this review.

The LRC, associated ER, and reportable data included in this review are attached to this Data Usability Summary (DUS).

DATA REVIEW/VALIDATION RESULTS

Introduction

Seven (7) groundwater samples were analyzed for one or more of the following: chloride, sulfate, boron, calcium and TDS. Table 1 lists the field identifications cross-referenced to laboratory identifications.

Analytical Results

The data package contains a minimum of one (1) quality control batch per analytical method analyzed. The quality control batch identifies the laboratory QC samples that correspond to the designated field samples. Not-detected results are reported as less than the value of the sample detection limit (SDL) as defined by the TRRP rule. The project Sampling and Analysis Plan (SAP) states that quality control percent recoveries of 70% to 130% indicate sufficient accuracy and a relative percent difference (RPD) of 30% indicates adequate precision. Therefore, these limits were used for comparison during this review for accuracy and precision. No data were qualified as part of this review (see Table 2).

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody. The samples were received in the appropriate containers with the paperwork filled out properly. The laboratory sample receipt checklist stated the samples were received at a temperature of 1.3°C. Samples were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial calibration data and continuing calibration data met EPA, Standard Method (SM) and SW-846 Method requirements for sulfate, calcium and TDS.

Continuing calibration blanks (CCB) for boron had low level detections. Associated samples were reported as greater than 5X the CCB; therefore, data were not qualified.

Blanks

Chloride, sulfate, calcium and TDS were reported as not-detected in the method blanks. Boron was detected in the metals batch 219701 method blank at 0.0163 J mg/L. Associated samples were reported as detected for boron greater than 2X the method blank concentration; therefore data were not qualified.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for sulfate, calcium and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for boron and calcium were analyzed on samples not associated with the project site and were not evaluated. Chloride/sulfate MS/MSD was analyzed on site sample MW-63 and was within acceptance criteria. MS/MSD analysis is not a requirement of TDS method SM2540C.

Post Digestion Spike and Serial Dilution

The post digestion spike (PDS) and serial dilution for boron and calcium were analyzed on a sample not associated with the project site and were not evaluated.

Laboratory Duplicates

Laboratory duplicates for TDS were within QC acceptance criteria.

Field Precision

Field duplicates were not included in this data package.

Summary

The groundwater analytical data are usable for the purpose of determining current concentrations of COCs in this medium at the Parish site.

References:

TCEQ. 2010. TRRP 13: Review and Reporting of COC Concentration Data. Texas Commission for Environmental Quality, Austin, Texas.

Environmental Resources Management (ERM). October 2017. Sampling and Analysis Plan. W.A. Parish Electric Generating Station, Thompsons, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24091436-01	MW-63	Groundwater
HS24091436-02	MW-64	Groundwater
HS24091436-03	MW-37	Groundwater
HS24091436-04	MW-38R	Groundwater
HS24091436-05	MW-61	Groundwater
HS24091436-06	MW-23R	Groundwater
HS24091436-07	MW-65	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
No data were qualified as part of this review.			

U – Not-detected

J – Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.

UJ – The analyte was analyzed for but was not detected above the reported sample detection limit. The associated value is an estimate and may be inaccurate or imprecise.

L – Bias in sample, likely to be low.

H – Bias in sample likely to be high.

Appendix D
Alternative Source Demonstrations

Texas Commission on Environmental Quality

Waste Permits Division Correspondence Cover Sheet

Date: July 18, 2024
Facility Name: NRG-WA Parish Generating Station
Permit or Registration No.: 108

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision to TCEQ Tracking No.: ______ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☒ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

Alternative Source Demonstration

W.A. Parish Electric Generating Station
Air Preheater Pond (SWMU 021)

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

July 2024

Prepared For
NRG Texas Power, LLC
Thompsons, Texas
TCEQ Coal Combustion Residuals (CCR) Registration No. CCR108
Industrial Solid Waste Registration No. 31631
EPA Identification No. TXD097311849

Gregory E. Tieman
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Tony Dworaczyk, P.G.
Geologist/Project Manager

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I hereby certify that the alternative source demonstration presented within this document for the NRG WA Parish Coal Ash Disposal Landfill CCR Unit has been prepared to meet the requirements of 30 TAC 352.4; 352.941(c); and 352.1321. This document is accurate and has been prepared in accordance with good geosciences practices, including the consideration of applicable industry standards, and with the requirements of 30 TAC 352.4; 352.941(c); and 352.1321.

Name: Tony Dworaczyk **Expiration Date:** 1/30/2025

Company: TRC Environmental Corporation **Date:** 1/23/2025

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

1/23/25

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Executive Summary

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas. Units managing coal combustion residuals (CCR) at the Station are subject to the requirements of 30 Texas Administrative Code (TAC) Chapter 352. CCR generated at the Station consists of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge. The Site has three active CCR management units that are subject to regulation under 30 TAC Chapter 32, including the Air Preheater Pond (APH) Pond, which is the subject of this Alternative Source Demonstration (ASD).

The 14th semi-annual groundwater detection monitoring event was conducted on March 1, 2024. Statistical evaluation of the results was performed within 60 days of sample collection to identify apparent statistically significant increases (SSIs) above background pursuant to 30 TAC 352 Subpart H. Two apparent SSIs, boron and sulfate were initially identified. Verification sampling was performed on March 29, 2024. NRG notified the Texas Commission on Environmental Quality (TCEQ) of its intent to prepare an ASD on June 25, 2024.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the second half 2019 (July) through the first half 2021 (April). The March 1, 2024 semi-annual detection monitoring event analytical results, including the March 29, 2024 verification sampling results, are the sixth data set statistically evaluated using the new background water quality data set.

This ASD successfully identified alternative sources for apparent SSIs at the APH Pond, based on the following lines of reasoning:

- It appears that the construction activities that occurred during the retrofit of the APH Pond per the federal CCR Rule during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
  - As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
  - Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
  - Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and

- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

- As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.
- Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition.

Therefore, since retrofit construction activities have been completed recently and it appears the uppermost aquifer system is continuing to re-equilibrate, NRG will continue performing semi-annual detection monitoring for the APH Pond per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas, adjacent to Smithers Lake. The electricity generating portion of the Station, or the main Plant Operations Area (Plant Area), is located along the southeastern shore of the lake.

Management of coal combustion residuals (CCR) at the Station is performed pursuant to 30 Texas Administrative Code (TAC) Chapter 352, which became effective during June 2021. Prior to this, management of CCR was performed pursuant to the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Part 257 (40 CFR §257) (CCR Rule, effective date October 19, 2015).

CCR generated at the Station consist of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge, which have been classified by the TCEQ as Class II nonhazardous waste. The Station has the following three active CCR-management units:

- Solid Waste Disposal Area (SWDA) (SWMU 001), which consists of four active CCR-management cells: Cell 1C, Cell 2A-Pug Mill, Cell 2B, and Cell 3; and is now monitored as a single CCR Multiunit;
- Air Preheater Pond (APH Pond, SWMU 021); and
- FGD Emergency Pond (E Pond, SWMU 020).

The APH Pond receives effluent from air preheater wash and boiler cleaning wash, which consists of fly ash or economizer ash particles and water. The APH Pond is located at the southern portion of the Plant Area as shown on Figure 1 and is the subject of this Alternative Source Demonstration (ASD).

1.1.1 Retrofit Construction Activities

During 2020 and 2021, the APH Pond was removed from service and retrofitted per §257.102(k) of the federal CCR Rule. As part of these activities, the CCR within the impoundment was dewatered, all water and CCR was removed from the impoundment, and the APH Pond area was decontaminated based on over-excavating a minimum of 6-inches of clay liner material after removal of CCR. After CCR removal and decontamination had been confirmed, a federal CCR Rule bottom composite liner system was then installed and the APH Pond was placed back into service as a CCR unit compliant with both the federal and TCEQ CCR programs.

During retrofit construction activities for the APH Pond, upgradient groundwater monitoring well MW-39 was apparently destroyed and could not be located during the April 2021 detection monitoring event. Therefore, MW-39 was replaced by MW-39R that was installed in the approximate location of MW-39 prior to performance of the October 2021 semi-annual detection monitoring event.

Furthermore, during retrofit construction activities, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
- Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

1.1.2 Groundwater Monitoring Program

On behalf of NRG, Environmental Resources Management, Inc. (ERM) conducted eight independent background groundwater detection monitoring events for both the Appendix III and IV CCR constituents between April 2015 and August 2017 per §257.94(b) of the federal CCR Rule and the first semi-annual detection monitoring event in October 2017. Results of the eight background and first semi-annual detection monitoring events for the APH Pond were documented in the *Annual Groundwater Monitoring Report, Landfill (Unit 004)* (ERM 2018a) and the *Annual Groundwater Monitoring Report, APH Pond (Unit 021)* (ERM 2018a) and the March 1, 2018, *Groundwater Monitoring Report, APH Pond* (SWMU Unit 021) (ERM 2018b) pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the APH Pond per the federal CCR Rule and 30 TAC Chapter 352. As of the March 1, 2024 sampling event and the March 29, 2024 resampling, a total of 14 semi-annual detection monitoring events have now been performed. Following each semi-annual detection monitoring sampling event, the results have been evaluated for potential SSIs, and ASDs have been prepared as needed. Since implementation of 30 TAC Chapter 352, the ASDs have been submitted to TCEQ for review and approval. The semi-annual detection monitoring activities and ASDs have been included in the Annual Groundwater Monitoring and Corrective Action reports, which have been placed into the Facility Operating Record (FOR) and posted to NRG's publicly accessible website.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the third half 2019 (July) through the first half 2021 (April). The March 1, 2024 semi-annual detection monitoring event analytical results, including the March 29, 2024 verification sampling results, are the sixth data set statistically evaluated using the new background water quality data set.

1.2 Purpose

TRC prepared this ASD to evaluate apparent SSIs above background levels for the 14th semi-annual detection monitoring event in accordance with 30 TAC Chapter 352.

Section 2
Site Geology and Hydrogeology

This section provides information about the geology and hydrogeology of the Station and the area at and surrounding the APH Pond.

2.1 Hydrogeology

According to the *Geologic Atlas of Texas, Houston Sheet* (BEG 1982), the Station is underlain by alluvium and the Beaumont formation (also commonly referred to as the Beaumont Clay). The alluvium is present along the Brazos River, which is located approximately 0.9 miles from the northern boundary of the SWDA CCR units. Both the alluvium and the Beaumont formation are composed of clay, silt, and sand; and may include stream channel, point-bar, natural levee, back swamp, coastal marsh, and mud-flat deposits. The thickness of the Beaumont formation is approximately 100 feet. The alluvium is not present at the Plant Area, which is consistent with this area being located outside of the Brazos River floodplain zone (FBC 2018). The APH Pond and the E Pond are both located at the Plant Area.

The alluvium and the Beaumont Formation are located within the upper unit of the Chicot aquifer system. At most locations throughout Fort Bend County, the Chicot aquifer system is under confined conditions (TWDB 1990). The Chicot aquifer system is primarily recharged by precipitation at locations where it outcrops in Austin, Harris, and Waller Counties; groundwater then flows laterally within Fort Bend County (TWDB 1990). Site investigations performed by others on behalf of NRG also indicate that the uppermost groundwater-bearing units at the site are under confined conditions (ERM 2017a).

Environmental investigations conducted in May 2016 and November 2016 by ERM identified three main subsurface strata at the Station, which were designated as Stratum DA-1 through DA-3 at the SWDA and stratum PA-1 through PA-3 at the Plant Area (APH Pond and E Pond). The strata are fully described in the October 2017 *CCR Groundwater Monitoring Networks* report (ERM 2017b) and are summarized below.

2.1.1 Stratum PA-1 (Upper Confining Unit)

Stratum PA-1 is predominately silty clay with some sandy clay, clay, and sandy silt. Stratum PA-1 is present from the ground surface to depths ranging from 15 feet bgs to 32 feet bgs.

Stratum PA-1 serves as a confining unit to underlying Stratum PA-2, which comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. Geotechnical laboratory testing indicates that the hydraulic conductivity of Stratum PA-1 is 2.03E-08 centimeters per second (cm/sec) (ERM 2017b).

2.1.2 Stratum PA-2 (Upper Aquifer)

Stratum PA-2 is predominantly silty sand with varying sand and silt content and trace clay. Stratum PA-2 is generally greater than 10 feet in thickness with bottom depths ranging from 60 to 80 feet bgs.

Stratum PA-2 is saturated and comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. CCR monitoring wells in the Plant Area are completed within Stratum PA-2. Slug testing results for CCR monitoring wells indicate hydraulic conductivity ranges from 6.68E-04 cm/sec to 4.26E-02 cm/sec in Stratum PA-2 (ERM 2017b). Groundwater primarily flows to the southwest beneath the E Pond, and to the southeast beneath the APH Pond.

2.1.3 Stratum PA-3 (Lower Confining Unit)

Stratum PA-3 is predominantly clay to silty clay. This stratum appears to be the bottom confining layer to the overlying groundwater-bearing unit (Stratum PA-2). The thickness of Stratum PA-3 has not been defined.

2.1.4 Air Preheater Pond - Certified Monitoring Network

The certified CCR groundwater monitoring well network for the APH Pond consists of six groundwater monitoring wells (MW-39R, MW-40, MW-41, MW-62, MW-63, and MW-64) completed into Stratum PA-2. A groundwater potentiometric surface map was prepared by TRC for the March 1, 2024, semi-annual detection monitoring event and is provided in this ASD as Figure 2. Historically, groundwater flows to the southeast beneath the APH Pond at a gradient ranging from approximately 0.002 feet per foot (ft/ft) to 0.006 ft/ft.

The groundwater monitoring system for the APH Pond was originally certified per the federal CCR Rule on October 17, 2017. The original certified CCR groundwater monitoring well network for the APH Pond designated one upgradient monitoring well (MW-62) and five downgradient monitoring wells (MW-39, MW-40, MW-41, MW-63, and MW-64). However, based on TRC's review of groundwater elevation data measured for the semi-annual detection monitoring events and preparation of potentiometric surface maps, two of the initially designated downgradient monitoring wells (MW-39 and MW-40) were found to be located upgradient of the APH Pond as shown on the March 1, 2024, groundwater potentiometric surface map (Figure 2). Therefore, the CCR monitoring well system for the APH Pond was revised and consists of three upgradient monitoring wells (MW-39R, MW-40, and MW-62) and three downgradient monitoring wells (MW-41, MW-63, and MW-64).

During retrofit construction activities for the APH Pond during 2020 and 2021 per the federal CCR Rule, upgradient groundwater monitoring well MW-39 was apparently destroyed and could not be located during the April 2021 detection monitoring event. A replacement monitoring well (MW-39R) was installed during 2021 in close proximity to the location of former well MW-39 prior to the October 2021 semi-annual detection monitoring event and was monitored during that detection monitoring event.

2.2 Groundwater Geochemistry

Understanding the geochemistry of groundwater is essential to examining the groundwater monitoring data, explaining the relationships between the characteristics of the groundwater, and analyzing both natural and potential anthropogenic impacts on groundwater. Separate from potential source areas of contamination, geochemical processes are critical in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions, and adsorption-desorption processes. Based on the hydrogeology of the APH Pond, calcium and sulfate are discussed in the subsection below.

2.2.1 Boron in Groundwater

Boron is normally considered to be a minor constituent in groundwater since it is generally present in low concentrations (Palmucci & Rusi, 2014). Apart from a potential boron source area, the primary origin of boron in groundwater is typically associated with the processes of sorption and desorption from mineral surfaces including soil and bedrock (Ravenscroft & McArthur, 2004). Boron is often cited as a contaminant trace chemical and usually occurs as a non-ionized form as H_3BO_3 in soils at pH <8.5, but above this pH, it exists as an anion, $B(OH)_4^-$ (Upadhyaya et al., 2014).

The factors that may influence the concentration of boron in groundwater include weathering, human activity, evaporative concentration, ion-exchange, electrical conductivity (EC), and pH. Ravenscroft & McArthur (2004) investigated the mechanism of regional boron enrichment in groundwater and the results indicated that the main process resulting in boron enrichment in groundwater was flushing by fresh groundwater. The desorption of boron from mineral surfaces could be affected by pH, ionic strength, salinity, and the HCO_3/CO_3 ratio. Decreases in pH will increase the dissolution of boron from the mineral surfaces. Boron adsorption favors high pH and boron desorption favors low pH in rocks, soils, and organic matters (Hollis et al., 1988; Keren & Communar, 2009; Tabelin et al., 2014).

Additional investigations confirmed that the presence of boron in groundwater depends on the EC (salinity), such that the concentration of boron increases with increasing EC. Halim et al. (2010) reported that the increae in Cl^- contributes to an increase in EC value since a strong linear correlation (R^2 = 0.88) between EC and Cl^- was observed. Palmucci & Rusi (2014) observed a clear correlation between elevated concentrations of boron and the chloride-sodium facies, which are characterized by high saline content, negative redox potential, and low value of the SO_4^{2-}/Cl^- ratio. Rodriguez-Espinosa et al. (2020) determined that the concentration of boron in groundwater was related to SO_4^{2-} and the age affect.

Regarding the concentration of boron in groundwater at the APH Pond, the source of boron is natural rather than anthropogenic. Therefore, the increase in concentration of boron is related to natural variations in groundwater geochemistry, such as pH, ion exchanges, EC, and salinity.

2.2.2 Sulfate in Groundwater

The presence of sulfate is ubiquitous in groundwater, having both natural and anthropogenic sources. There are many potential sources of sulfate in groundwater including mineral dissolution, atmospheric deposition, and other anthropogenic sources (mining, fertilizer, synthetic detergents, industrial wastewater etc.) (Miao et al., 2012). As groundwater moves through soil and rock formations that contain sulfate minerals, a portion of the sulfate dissolves into the groundwater. Minerals that contain sulfate include magnesium sulfate (Epsom salt), sodium sulfate (Glauber's salt), and calcium sulfate (gypsum). Gypsum is an important contributor to elevated concentrations of sulphate in groundwater aquifers. Elevated concentrations of sulfate in groundwater are common in the western part of the United States (MDH, 2008).

Sulfate is mobile in soil and can impact groundwater quality. Multiple investigations have indicated that atmospheric deposition, dissolution of gypsum, and oxidation of sulfide minerals can contribute to the concentrations of sulfate in groundwater.

Regarding the concentration of sulfate in groundwater at the APH Pond, the source of sulfate is more likely natural rather than anthropogenic. Therefore, the increase in concentration of sulfate is related to natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition (Einsiedl & Mayer, 2005; Pu et al., 2012).

Section 3
Alternative Source Demonstration

The 14th semi-annual detection monitoring event was conducted on March 1, 2024 per 30 TAC Chapter 352. Statistical evaluation of the results (comparison of downgradient monitoring results to 95 percent confidence/95 percent coverage upper tolerance limits [UTLs]) was performed within 60 days of sample collection to identify apparent SSIs above background pursuant to 30 TAC 352, Subpart H. Two apparent SSIs were initially identified (boron and sulfate).

As part of the ASD activities, verification sampling was conducted on March 29, 2024 for the initial two apparent SSIs. Statistical evaluation to identify SSIs for the verification sampling was performed within 60 days of sample collection. Both apparent SSIs were confirmed. Based on the results of the verification sampling and statistical analysis, NRG notified the TCEQ of its intent to prepare an ASD on June 25, 2024 addressing the apparent SSIs for boron and sulfate.

The UTLs and sampling results for the for the apparent SSIs are provided in Table 1 below.

Table 1 SSIs – March 2024 Semi-Annual Detection Monitoring Event

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
Sulfate	MW-63	NA	360	03/29/2024	364	mg/L
Boron	MW-63	NA	0.23	03/29/2024	0.438	mg/L

Notes: mg/L = milligrams per Liter
S.U. = Standard Units

As discussed previously in subsection 1.1.1 of this ASD, during retrofit construction activities at the APH Pond during 2020 and 2021 per the federal CCR Rule, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
- Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and ORP, are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

Section 4
Conclusions

Based on statistical evaluation of the March 1, 2024 semi-annual detection monitoring event and the March 29, 2024 verification sampling events analytical results, two apparent SSIs, boron and sulfate were identified for the APH Pond. This ASD has identified the following lines of reasoning that support alternative sources for the apparent SSI:

- It appears that the construction activities that occurred during the retrofit of the APH Pond per the federal CCR Rule during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
  - As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
  - Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
  - Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
  - As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.
- As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.
- Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the retrofitted APH Pond have been shown to be responsible for the apparent SSIs observed. Based on preparation of this successful ASD, NRG will continue semi-annual detection monitoring for the APH Pond per 30 TAC Chapter 352.

Section 5
References

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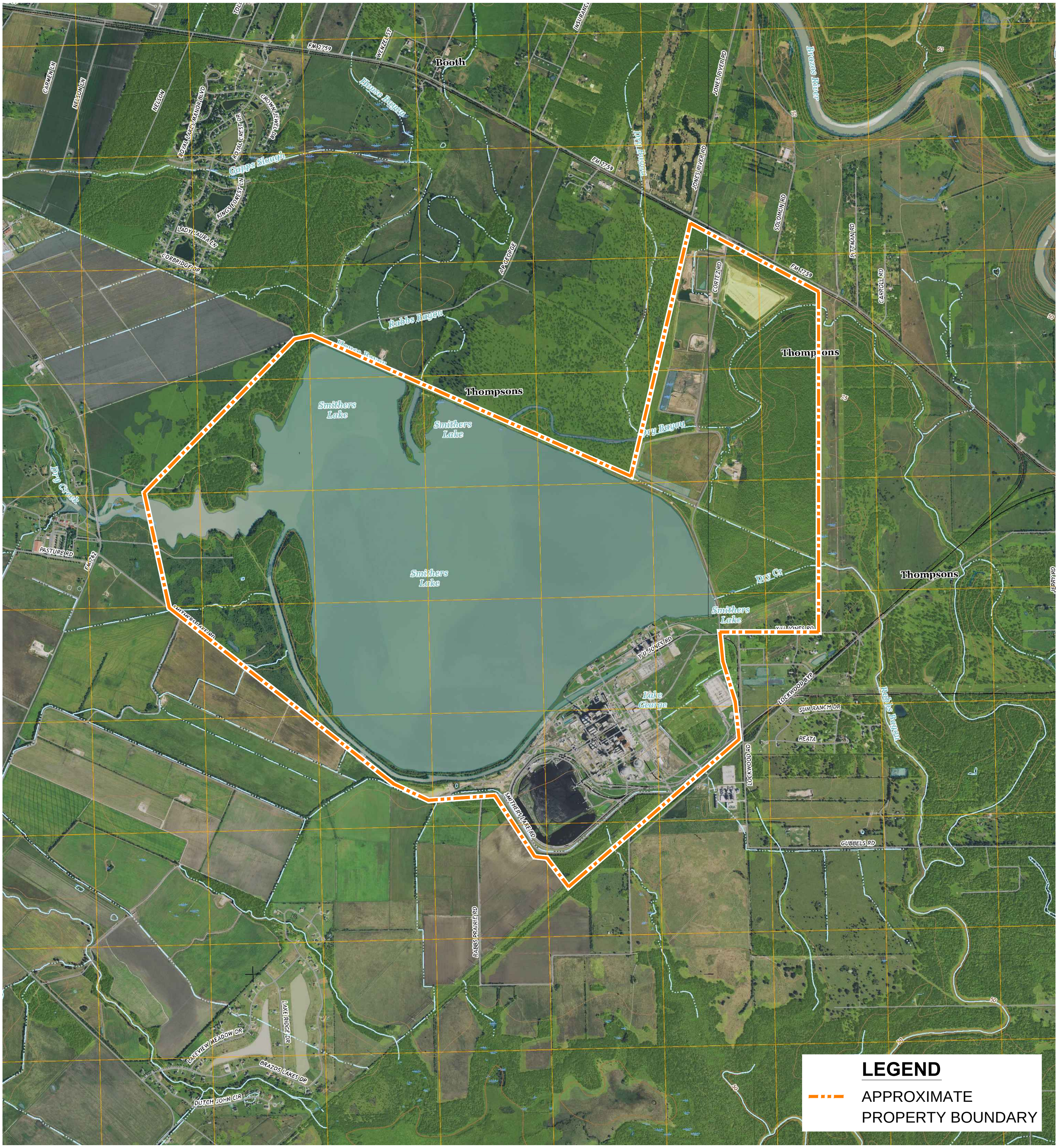
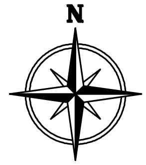
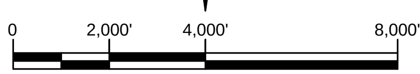
Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
MISSOURI CITY, TEXAS (2016) / SMITHERS LAKE, TEXAS (2016) / SUGAR LAND, TEXAS (2016) / THOMPSONS, TEXAS (2016)

TEXAS
QUADRANGLE LOCATION





SCALE IN FEET
1" = 4,000'-0"

PROJECT:

NRG TEXAS POWER, LLC
W.A. Parish Station
Thompsons, Texas

TITLE:

SITE LOCATION MAP

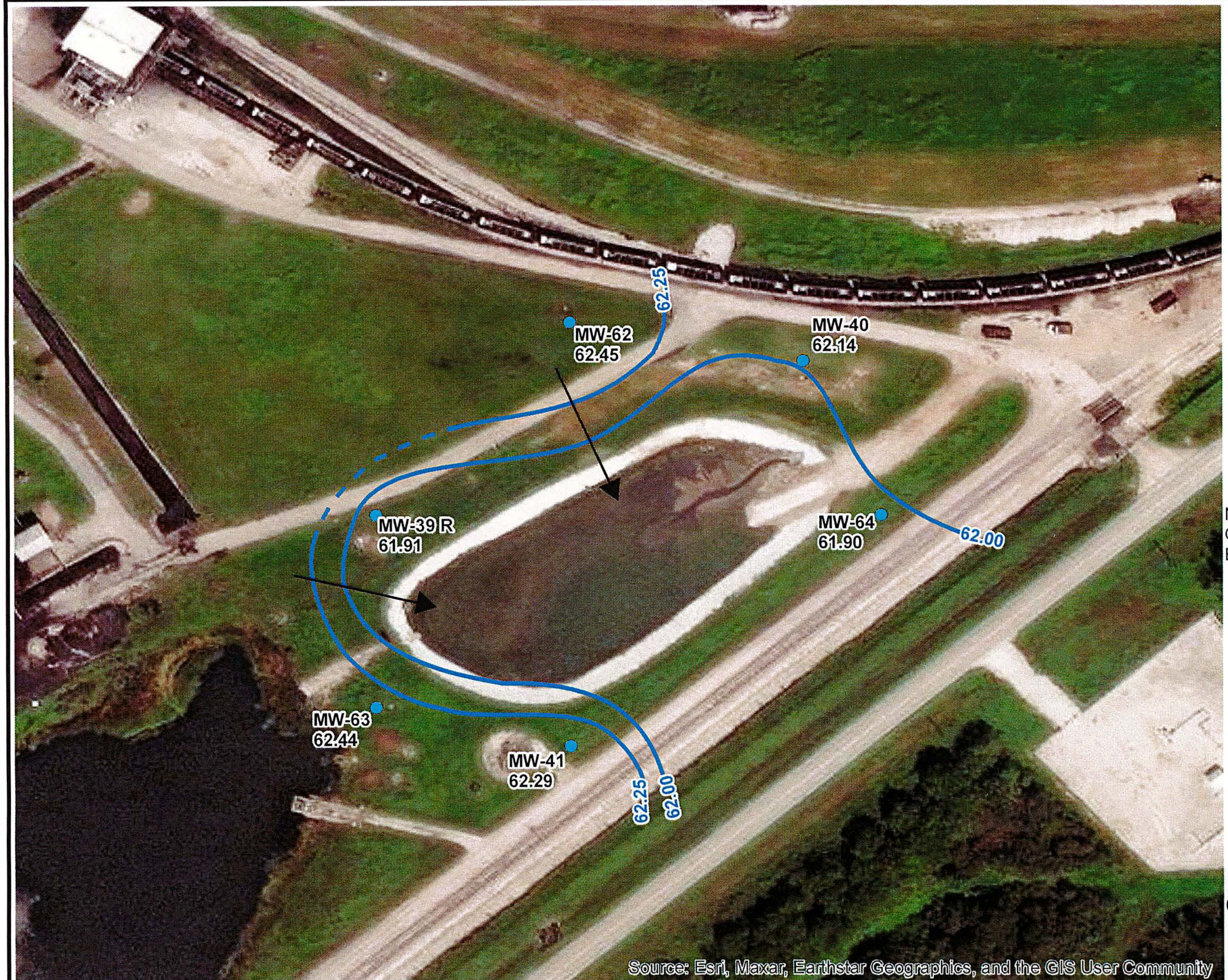
DRAWN BY:	O. Fonseka	PROJECT No.:	478259.0001.0000
CHECKED BY:	T. Dworaczyk	**FIGURE 1**	
APPROVED BY:	T. Dworaczyk		
DATE:	DECEMBER 2022		

TRC

14701 St. Mary's Lane
Suite 500
Houston, TX 77079
Phone: 713.244.1000

FILE: Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg

HOU M:\ACAD-TRC\DRAFTING\CLIENT-Name- K-L-M-N-O\NRG\W.A. Parish Station - Thompsons-TX\2019 - CCR-Report\ Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg 01/16/19



Legend

- Monitor Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- ***61.90*** Groundwater Elevation (FT MSL)

NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON MARCH 2024

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

7-2-24

N

0 150 300 FT

1 " = 150 '
1:1,800

TRC
14701 St. Mary's Lane, Suite 500
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT:
NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:
AIR PREHEATER POND
GROUNDWATER POTENTIOMETRIC SURFACE MAP MARCH 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	JULY 2024
PROJ. NO.:	585638.0000.0001
FILE:	585638.0000_2-5

FIGURE 2

Texas Commission on Environmental Quality

Waste Permits Division Correspondence Cover Sheet

Date: July 18, 2024
Facility Name: NRG-WA Parish Generating Station
Permit or Registration No.: 108

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision to TCEQ Tracking No.: ______ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☒ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

Alternative Source Demonstration

W.A. Parish Electric Generating Station
FGD Emergency Pond (SWMU 020)

July 2024

Prepared For
NRG Texas Power, LLC
Thompsons, Texas
TCEQ Coal Combustion Residuals (CCR) Registration No. CCR108
Industrial Solid Waste Registration No. 31631
EPA Identification No. TXD097311849

STATE OF TEXAS
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LICENSED
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Gregory E. Tieman
Senior Client Services Manager

Tony Dworaczyk, P.G.
Geologist/Project Manager

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I hereby certify that the alternative source demonstration presented within this document for the NRG WA Parish Coal Ash Disposal Landfill CCR Unit has been prepared to meet the requirements of 30 TAC 352.4; 352.941(c); and 352.1321. This document is accurate and has been prepared in accordance with good geosciences practices, including the consideration of applicable industry standards, and with the requirements of 30 TAC 352.4; 352.941(c); and 352.1321.

Name: Tony Dworaczyk **Expiration Date:** 1/30/2025

Company: TRC Environmental Corporation **Date:** 1/23/2025

1/23/25

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Executive Summary

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas. Units managing coal combustion residuals (CCR) at the Station are subject to the requirements of 30 Texas Administrative Code (TAC) Chapter 352. CCR generated at the Station consists of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge. The Site has three active CCR management units that are subject to regulation under 30 TAC Chapter 32, including the FGD Emergency Pond (E Pond), which is the subject of this Alternate Source Demonstration (ASD).

The 14th semi-annual groundwater detection monitoring event was conducted on March 1, 2024. Verification sampling was performed on March 29. Statistical evaluation of the results was performed within 60 days of sample collection to identify apparent statistically significant increases (SSIs) above background pursuant to 30 TAC 352 Subpart H. Boron, sulfate, and total dissolved solids (TDS) were initially identified as apparent SSIs for the March 1, 2024 sampling event at three monitoring wells. NRG notified the Texas Commission Environmental Quality (TCEQ) in a letter dated June 25, 2024, of its intent to prepare an ASD.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the second half 2019 (July) through the first half 2021 (April). The October 2023 semi-annual detection monitoring event analytical results, including the November 2023 verification sampling results are the fifth data set statistically evaluated using the new background water quality data set.

This ASD has identified alternative sources for all seven apparent SSIs at the E Pond, based on the following lines of reasoning:

- The bottom of the E Pond clay liner is separated from the upper aquifer system by a confining unit that hydraulically isolates the bottom of the E Pond from the upper aquifer system. Improperly installed or damaged monitoring wells may have historically provided a conduit for CCR constituents to migrate into the upper aquifer system.
- The former, historical presence of CCR materials in the vicinity of the monitoring wells prior to their modification to include risers from the ground surface provided an opportunity for surface materials to inadvertently enter the wells directly from the ground surface.
- Water quality improved incrementally with each improvement to the CCR groundwater monitoring network over time. In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the former location of MW-38. Analytical data for August 2019 for MW-38R indicates significantly improved overall groundwater quality data.

- It appears that the construction activities that occurred during the retrofit of the E Pond per the federal CCR Rule and the Closure Plan during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
  - As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
  - Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
  - Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
  - As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.
- As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.
- Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the E Pond have been shown to be responsible for each of the seven apparent SSIs observed. Based on this successful ASD, NRG will continue performing semi-annual detection monitoring for the E Pond per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas, adjacent to Smithers Lake. The electricity generating portion of the Station, or the main Plant Operations Area (Plant Area), is located along the southeastern shore of the lake.

Management of coal combustion residuals (CCR) at the Station is performed pursuant to 30 Texas Administrative Code (TAC) Chapter 352, which became effective during June 2021. Prior to this, management of CCR was performed pursuant to the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Part 257 (40 CFR §257) (CCR Rule, effective date October 19, 2015).

CCR generated at the Station consist of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge, which have been classified by the TCEQ as Class II nonhazardous waste. The Station has the following three active CCR-management units:

- Solid Waste Disposal Area (SWDA) (SWMU 001), which consists of four active CCR-management cells: Cell 1C, Cell 2A-Pug Mill, Cell 2B, and Cell 3; and is now monitored as a single CCR Multiunit;
- Air Preheater Pond (APH Pond, SWMU 021); and
- FGD Emergency Pond (E Pond, SWMU 020).

The E Pond receives storm water runoff from the FGD dewatering area and blowdown from the FGD system. The E Pond may also receive the contents of an FGD process vessel when the FGD system is not in operation.

1.1.1 Retrofit Construction Activities

During 2020 and 2021, the E Pond was removed from service and retrofitted per §257.102(k) of the federal CCR Rule. As part of these activities, the CCR within the impoundment was dewatered, all water and CCR was removed from the impoundment, and the E Pond area was decontaminated based on over-excavating a minimum of 6-inches of clay liner material after removal of CCR. After CCR removal and decontamination had been confirmed, a federal CCR Rule bottom composite liner system was then installed, and the E Pond was placed back into service as a CCR unit compliant with both the federal and TCEQ CCR programs.

During retrofit construction activities, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
- Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

1.1.2 Groundwater Monitoring Program

On behalf of NRG, Environmental Resources Management, Inc. (ERM) conducted eight independent background groundwater detection monitoring events for both the Appendix III and IV CCR constituents between April 2015 and August 2017 per §257.94(b) of the federal CCR Rule and the first semi-annual detection monitoring event in October 2017. Results of the eight background and first semi-annual detection monitoring events for the E Pond were documented in the *Annual Groundwater Monitoring Report, FGD Emergency Pond (Unit 020)* (ERM 2018a) and the March 1, 2018, *Groundwater Monitoring Report, FGD Emergency Pond (SWMU Unit 020)* (ERM 2018b) pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the E Pond per the federal CCR Rule and 30 TAC Chapter 352. As of the March 1, 2024 sampling event and verification sampling on March 29, 2024, a total of 14 semi-annual detection monitoring events have now been performed. Following each semi-annual detection monitoring sampling event, the results have been evaluated for potential SSIs, and ASDs have been prepared as needed. Since implementation of 30 TAC Chapter 352, the ASDs have been submitted to TCEQ for review and approval. The semi-annual detection monitoring activities and ASDs have been included in the Annual Groundwater Monitoring and Corrective Action reports, which have been placed into the Facility Operating Record (FOR) and posted to NRG's publicly accessible website.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the third half 2019 (July) through the first half 2021 (April). The May 2023 semi-annual detection monitoring event and May 2023 verifications sampling analytical results are the fourth data set statistically evaluated using the new background water quality data set.

Since initial installation of the CCR groundwater monitoring network for the E Pond, improvements to the network have been implemented to improve the operation of the network. These improvements are identified below:

- During the second semi-annual detection monitoring, surface CCR may have been inadvertently introduced into the monitoring wells and the laboratory analytical sample containers during the initial background and semi-annual detection monitoring events. To mitigate this potential issue, the flush-mounted monitoring wells at the E Pond were modified before the third semi-annual detection monitoring event was performed with the installation of vertical well casing extensions and protective casings;
- During the third semi-annual detection monitoring event, silt was observed in the monitoring wells at the E Pond. The wells were redeveloped, and accumulated silt was removed from the well casings prior to performance of the fourth semi-annual detection monitoring event; and
- In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the location of former MW-38.

1.2 Purpose

TRC prepared this ASD on behalf of NRG to evaluate apparent SSIs above background levels for the 14th semi-annual detection monitoring event in accordance with 30 TAC Chapter 352.

Section 2
Site Geology and Hydrogeology

This section provides information about the geology and hydrogeology of the Station and the area at and surrounding the E Pond.

2.1 Hydrogeology

Based on the *Geologic Atlas of Texas, Houston Sheet* (BEG 1982), the Station is underlain by alluvium and the Beaumont formation (also commonly referred to as the Beaumont Clay). The alluvium is present along the Brazos River, which is located approximately 0.9 miles from the northern boundary of the SWDA CCR units. Both the alluvium and the Beaumont formation are composed of clay, silt, and sand; and may include stream channel, point-bar, natural levee, back swamp, coastal marsh, and mud-flat deposits. The thickness of the Beaumont formation is approximately 100 feet. The alluvium is not present at the Plant Area which is consistent with this area being located outside of the Brazos River floodplain zone (FBC 2018). The APH Pond and the E Pond are both located at the Plant Area.

The alluvium and the Beaumont Formation are located within the upper unit of the Chicot aquifer system. At most locations throughout Fort Bend County, the Chicot aquifer system is under confined conditions (TWDB 1990). The Chicot aquifer system is primarily recharged by precipitation at locations where it outcrops in Austin, Harris, and Waller Counties; groundwater then flows laterally within Fort Bend County (TWDB 1990). Site investigations performed by others on behalf of NRG also indicate that the uppermost groundwater-bearing units at the Site are under confined conditions (ERM 2017a).

Environmental site investigations conducted in May 2016 and November 2016 identified three main subsurface strata at the Station, which were designated as Stratum DA-1 through DA-3 at the SWDA and Stratum PA-1 through PA-3 at the Plant Area (APH Pond and E Pond). The strata are fully described in the October 2017 *CCR Groundwater Monitoring Networks* report (ERM 2017b) and are summarized below.

2.1.1 Stratum PA-1 (Upper Confining Unit)

Stratum PA-1 is predominately silty clay with some sandy clay, clay, and sandy silt. Stratum PA-1 is present from the ground surface to depths ranging from 15 feet bgs to 32 feet bgs.

Stratum PA-1 serves as a confining unit to underlying Stratum PA-2, which comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. Geotechnical laboratory testing indicates that the hydraulic conductivity of Stratum PA-1 is 2.03E-08 centimeters per second (cm/sec) (ERM 2017b).

2.1.2 Stratum PA-2 (Upper Aquifer)

Stratum PA-2 is predominantly silty sand with varying sand and silt content and trace clay. Stratum PA-2 is generally greater than 10 feet in thickness with bottom depths ranging from 60 to 80 feet bgs.

Stratum PA-2 is saturated and comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. CCR monitoring wells in the Plant Area are completed within Stratum PA-2. Slug testing results for CCR monitoring wells indicate hydraulic conductivity ranges from 6.68E-04 cm/sec to 4.26E-02 cm/sec in Stratum PA-2 (ERM 2017b). Groundwater primarily flows to the southwest beneath the E Pond, and to the southeast beneath the APH Pond.

2.1.3 Stratum PA-3 (Lower Confining Unit)

Stratum PA-3 is predominantly clay to silty clay. This stratum appears to be the bottom confining layer to the overlying groundwater-bearing units (Stratum PA-2). The thicknesses of Stratum PA-3 has not been defined.

2.1.4 E Pond – Certified Monitoring Network

The certified CCR groundwater monitoring well network for the E Pond consists of five groundwater monitoring wells:

- Upgradient monitoring wells MW-36 and MW-60; and
- Downgradient monitoring wells MW-37, MW-38R, and MW-61.

The wells were completed into Stratum PA-2. A groundwater potentiometric surface map was prepared by TRC for the March 1, 2024, semi-annual detection monitoring event and is provided in this ASD as Figure 2. Historically, groundwater flows to the southwest beneath the E Pond at a gradient ranging from 0.010 feet per foot (ft/ft) to 0.030 ft/ft.

2.2 Groundwater Geochemistry

Understanding the geochemistry of groundwater is essential to examining the groundwater monitoring data, explaining the relationships between the characteristics of the groundwater, and analyzing both natural and potential anthropogenic impacts on groundwater. Separate from potential source areas of contamination, geochemical processes are critical in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions, and adsorption-desorption processes. Based on the hydrogeology of the E Pond, potential SSIs in groundwater including boron, sulfate, and total dissolved solids (TDS) are discussed in the subsections below.

2.2.1 Boron in Groundwater

Boron is normally considered to be a minor constituent in groundwater since it is generally present in low concentrations (Palmucci & Rusi, 2014). Apart from a potential boron source area, the primary origin of boron in groundwater is typically associated with the processes of sorption and desorption from mineral surfaces including soil and bedrock (Ravenscroft & McArthur, 2004). Boron is often cited as a contaminant trace chemical and usually occurs as a non-ionized form as H_3BO_3 in soils at pH <8.5, but above this pH, it exists as an anion, $B(OH)_4^-$ (Upadhyaya et al., 2014).

The factors that may influence the concentration of boron in groundwater include weathering, human activity, evaporative concentration, ion-exchange, electrical conductivity (EC), and pH. Ravenscroft & McArthur (2004) investigated the mechanism of regional boron enrichment in groundwater and the results indicated that the main process resulting in boron enrichment in groundwater was flushing by fresh groundwater. The desorption of boron from mineral surfaces could be affected by pH, ionic strength, salinity, and the HCO_3/CO_3 ratio. Decreases in pH will increase the dissolution of boron from the mineral surfaces. Boron adsorption favors high pH and boron desorption favors low pH in rocks, soils, and organic matters (Hollis et al., 1988; Keren & Communar, 2009; Tabelin et al., 2014).

Additional investigations confirmed that the presence of boron in groundwater depends on the EC (salinity), such that the concentration of boron increases with increasing EC. Halim et al. (2010) reported that the increae in Cl^- contributes to an increase in EC value since a strong linear correlation (R^2 = 0.88) between EC and Cl^- was observed. Palmucci & Rusi (2014) observed a clear correlation between elevated concentrations of boron and the chloride-sodium facies, which are characterized by high saline content, negative redox potential, and low value of the SO_4^{2-}/Cl^- ratio. Rodriguez-Espinosa et al. (2020) determined that the concentration of boron in groundwater was related to SO_4^{2-} and the age affect.

Regarding the concentration of boron in groundwater at the E Pond, the source of boron is natural rather than anthropogenic. Therefore, the increase in concentration of boron is related to natural variations in groundwater geochemistry, such as pH, ion exchanges, EC, and salinity.

2.2.2 Sulfate in Groundwater

The presence of sulfate is ubiquitous in groundwater, having both natural and anthropogenic sources. There are many potential sources of sulfate in groundwater including mineral dissolution, atmospheric deposition, and other anthropogenic sources (mining, fertilizer, synthetic detergents, industrial wastewater etc.) (Miao et al., 2012). As groundwater moves through soil and rock formations that contain sulfate minerals, a portion of the sulfate dissolves into the groundwater. Minerals that contain sulfate include magnesium sulfate (Epsom salt), sodium sulfate (Glauber's salt), and calcium sulfate (gypsum). Gypsum is an important contributor to elevated concentrations of sulphate in groundwater aquifers.

Elevated concentrations of sulfate in groundwater are common in the western part of the United States (MDH, 2008).

Sulfate is mobile in soil and can impact groundwater quality. Multiple investigations have indicated that atmospheric deposition, dissolution of gypsum, and oxidation of sulfide minerals can contribute to the concentrations of sulfate in groundwater.

Regarding the concentration of sulfate in groundwater at the E-Pond, the source of sulfate is natural rather than anthropogenic. Therefore, the increase in concentration of sulfate are related to natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition (Einsiedl & Mayer, 2005; Pu et al., 2012).

2.2.3 TDS

Total dissolved solids (TDS) represent the combined total of inorganic and organic substances present in groundwater, and TDS can be a general indicator of water quality. These solids typically consist of minerals, salts, and organic matter, which may originate from sources such as weathering of minerals, storm water runoff, sewage, effluent discharges, agriculture, decaying organisms, and anthropogenic sources. Common salts that contribute to TDS are sodium, chloride, calcium, magnesium, potassium, sulfate, and bicarbonate. (Olumuyiwa I. Ojo, 2012)

TDS concentrations in groundwater is usually higher than surface water due to the longer contact time for groundwater with underlying soil and rocks. Since many minerals are water soluble, high concentrations can accumulate over time through the processes of precipitation and evaporation.

TDS is related to other water quality parameters such as hardness, which may occur if an elevated concentration of TDS is associated with the presence of carbonates. Research investigations have evaluated the relationship between TDS and other groundwater parameters such as EC and salinity (Atekwana et al., 2004; Banadkooki et al., 2020; Poursaeid et al., 2020).

Section 3
Alternative Source Demonstration

The 14th semi-annual detection monitoring event was conducted on March 1, 2024, per 30 TAC Chapter 352. Statistical evaluation of the results (comparison of downgradient monitoring results to 95 percent confidence/95 percent coverage upper tolerance limits [UTLs]) was performed within 60 days of sample collection to identify apparent SSIs above background pursuant to 30 TAC 352 Subpart H. Seven apparent SSIs were initially identified.

As part of the ASD activities, verification sampling was conducted on March 29, 2024 for the initial seven apparent SSIs. Statistical evaluation to identify SSIs for the sampling event was performed within 60 days of sample collection. Seven apparent SSIs were confirmed for boron, sulfate, and TDS for three down gradient monitoring wells. Based on the results of the sampling event and statistical analysis, NRG notified the TCEQ of its intent to prepare an ASD on June 25, 2024 addressing the apparent SSIs.

The UTLs and sampling results for the seven apparent SSIs are provided in Table 1 below.

Table 1 SSIs – March 2024 Semiannual Detection Monitoring Event and May Verification Samples

ANALYTE	WELL	UTL	SAMPLE DATE	VALUE	UNIT
Boron	MW-37	0.12	03/29/2024	0.404	mg/L
Sulfate	MW-37	470	03/29/2024	1,140	mg/L
Boron	MW-38R	0.12	03/29/2024	0.344	mg/L
Sulfate	MW-38R	470	03/29/2024	657	mg/L
Boron	MW-61	0.12	03/39/2024	5.24	mg/L
Sulfate	MW-61	470	03/29/2024	1,140	mg/L
TDS	MW-37	1,826	03/39/2024	1,980	mg/L

Notes: mg/L = milligrams per Liter

3.1.1 Site-Specific Hydrogeology

Based on site-specific hydrogeology at the E Pond, the following lines of reasoning have been identified that support alternative source(s) for the apparent SSIs:

- The bottom of the E Pond is separated from the upper aquifer system by a confining unit (Stratum PA-1) that hydraulically isolates the bottom of the E Pond from the upper aquifer system (Stratum PA-2). Available data indicate the upper aquifer system is under confined conditions and the confining unit (Stratum PA-1) acts as a vertical hydraulic barrier between the bottom of the E Pond and the upper aquifer system (Stratum PA-2), based on the following lines of reasoning:

- Based on review of the boring logs for the groundwater monitoring wells installed at the E Pond, the upper clay confining unit (Stratum PA-1) was present at each monitoring well from the ground surface to depths ranging from 19 feet bgs to 32 feet bgs [i.e., thickness ranging from 19 feet to 32 feet; corresponding to elevations of about 53 to 49 feet above mean sea level (amsl)]. The bottom of the E Pond is located within Stratum PA-1 with the bottom of the clay liner at an elevation of about 60 feet amsl); therefore, Stratum PA-1 acts as a confining layer between the bottom of the E Pond and the underlying upper aquifer system (Stratum PA-2); and

- Based on geotechnical laboratory results for a soil sample collected from Stratum PA-1 at a depth of 10 feet bgs, Stratum PA-1 is a lean clay with a hydraulic conductivity of 2.03E-8 centimeters per second (ERM 2017b), which is consistent with an impervious lithologic unit that exceeds the required specifications per 40 CFR §257.71(a) for a compacted bottom clay liner for a CCR impoundment.

■ The E Pond is located at an active power generating area at the Plant Area and non CCR-related and CCR-related materials are actively managed near the E Pond. For example, the FGD loadout pad immediately adjoins the E Pond. The presence of non CCR-related and CCR-related materials near the E pond monitoring wells may be a potential source for some or all of the apparent SSIs identified in groundwater samples collected from wells located downgradient of the E Pond, as described further below. The E Pond monitoring wells were originally installed as flush-mounted wells, which may have enabled surface materials to incidentally enter the groundwater monitoring wells during sampling activities.

■ Prior to the third semiannual detection monitoring event, NRG modified the monitoring wells by installing casing extensions and protective casings to protect the wells from the accidental introduction of CCR materials directly into groundwater samples during sample collection. The wells were further redeveloped prior to the fourth sampling event. Although the wells have been improved and sampling collection methods modified, groundwater/groundwater samples may still be affected by the prior, historical inadvertent introduction of surface CCR into the monitoring wells and/or groundwater samples during sample collection. This may include residual impacts from CCR introduced into the wells prior to their improvement in 2018.

3.1.2 Replacement Well MW-38R

In July 2019, equipment working in the vicinity of the E Pond inadvertently damaged MW-38. The well was replaced by new monitoring well MW-38R in August 2019, which was installed adjacent to the location of former MW-38. Following well development, groundwater samples were collected from the replacement monitoring well on August 5, 2019. Table 2 provides a comparison of the April 30, 2019, Appendix III analytical results for MW-38 and the August 5, 2019, analytical results for MW-38R.

The August samples were analyzed by a different analytical laboratory and by the methods described below. While the results for two analytes remain higher than the UTLs, they indicate improved water quality. These results indicate that technical issues with MW-38 were likely responsible for elevated concentrations of some Appendix III constituents in that well. It is likely that these monitoring well issues and other issues with materials present in the vicinity of the monitoring wells had allowed a pathway for constituents to reach the groundwater by a pathway other than migration directly from the E Pond.

Table 2 Replacement Well Analytical Results

ANALYTE	UTL	UNIT	MW-38 4/29/2019	MW-38R 8/5/2019
Boron	0.16	mg/L	**2.01**	**0.359**
Calcium	301	mg/L	**454**	**323**
Chloride	359	mg/L	**661 JL**	**180**
Fluoride	7	mg/L	**0.817**	**0.52**
Field pH	6.4 – 7.1	S.U.	**6.79**	**6.83**
Sulfate	1,070	mg/L	**855 JL**	**775**
Total Dissolved Solids	1,958	mg/L	**2,710**	**1,870**

Results above detection limits are bolded
Results above the UTL are highlighted
JL Estimated result with a low bias

3.1.3 Historical Laboratory Data Quality Issues

Based on validation of the original background and semi-annual detection monitoring events provided by the analytical laboratory, TRC determined that there were unresolvable issues regarding data quality. These issues brought into question the accuracy and quality of the data provided by the analytical laboratory to develop the original background water quality data set (see Technical Memos on Laboratory Quality Issues, dated 4-24-19 and Laboratory Change for CCR Sampling Events, dated 7-19-19).

During the April 2019 fourth semi-annual detection monitoring event, a groundwater sample from one well per CCR unit was split between two analytical laboratories to assess the ongoing issues with the analytical laboratory. For the E Pond, MW-37 was selected for split sampling. The split samples for chloride and TDS each had one result that was a potential SSI, and one results that was not. While the TDS results between the two laboratories were relatively close and merely straddle the background UTL concentration, the chloride results were substantially different (a circumstance that was also observed for the other spilt samples). This provides support for the line of reasoning and likelihood that laboratory analytical issues were an alternative source for the chloride UTL exceedance.

3.1.4 E Pond Retrofit Activities

In addition to the site-specific hydrogeology at the E Pond and data quality issues associated with the initial laboratory used for analyses, as discussed previously in subsection 1.1.1 of this ASD, during retrofit construction activities at the E Pond during 2020 and 2021 per the federal CCR Rule, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
- Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and ORP, are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters, including pH and sulfate.

Finally, the apparent SSIs are discussed relative to the groundwater monitoring wells for the E Pond in the subsections below:

3.2 MW-37

Sulfate was detected in MW-37 at a concentration of 1,250 mg/L in the March 1, 2024 sample and 1,140 mg/L in the verification sample. Both sample results exceeded the UTL for the E-Pond of 474 mg/L. The sulfate data are consistent with the data collected during the previous two years. The elevated sulfate concentrations are related to the potential impact of reduced surface sulfate sources or mineral dissolution and not related to a release from E-Pond.

Boron was detected in MW-37 at a concentration of 0.479 mg/L in the March 1, 2024 sample and 0.404 mg/L in the verification sample. Both sample results exceeded the UTL for the E-Pond of 0.12 mg/L. The boron data are consistent with the data collected from 2017 to 2021. The elevated boron concentrations are related to the potential impact of a new surface source resulting in an elevated EC and high salinity in the groundwater and not related to a release from the E Pond. As discussed in subsection 2.2 of this ASD, boron has a positive correlation to EC and salinity in groundwater, such that the desorption of boron from mineral surfaces favors elevated EC and salinity conditions in the aquifer.

Soil disturbance occurred during 2020 and 2021 as part of the retrofit of the E Pond. Construction activities included CCR dewatering, CCR excavation, decontamination, and construction of a composite bottom-liner system. Such activities likely impacted the geochemical stability of the aquifer and impacted groundwater quality in the aquifer, for example, causing additional mineral dissolution into groundwater and/or introducing new carbonate sources such as concrete materials. As the aquifer restabilizes over time after completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will restabilize and concentrations of CCR indicator parameters should return to their pre-construction condition.

3.3 MW-38R

Sulfate was detected in MW-38R at a concentration of 705 mg/L in the March 1, 2024 sample and 1,140 mg/L in the verification sample. Both sample results exceeded the UTL for the E Pond of 474 mg/L. A decreasing trend in sulfate concentrations was observed from 2021 to 2022 and the concentration of sulfate has been approaching its UTL. The overall decreasing trend in sulfate concentrations indicates that less surface sulfate sources are present at the E Pond. Dissolution of sulfate from soils and minerals is likely the source of sulfate in groundwater. The elevated sulfate concentrations could be related to the potential impact of reduced surface sulfate sources and not related to a release from E-Pond.

Boron was detected in MW-38R at a concentration of 0.378 mg/L in the March 1, 2024, sample and 0.344 mg/L in the verification sample. Both sample results exceeded the UTL for the E Pond of 0.12 mg/L. The sample results were generally consistent with the data for boron from 2019 through 2021. Similar trends for the boron data were observed in both downgradient monitoring well M-37 and MW-38R at the E Pond. The elevated boron concentration in both sampling events could be related to the potential impact of a new surface source resulting in elevated EC and salinity concentrations in groundwater and surface water flushing and accumulation. As discussed in Section 2.2 of this ASD, boron has a positive correlation to EC and salinity in groundwater, such that the desorption of boron from mineral surfaces favors elevated EC and salinity conditions in the aquifer.

As discussed in subsection 3.1, soil disturbance occurred during 2020 and 2021 as part of the retrofit of the E Pond. Construction activities included CCR dewatering, CCR excavation, decontamination, and construction of a composite bottom-liner system. Such activities likely impacted the geochemical stability of the aquifer and impacted groundwater quality in the aquifer, for example, causing additional mineral dissolution into groundwater and/or introducing new carbonate sources such as concrete materials. As the aquifer restabilizes over time after completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will restabilize and concentrations of CCR indicator parameters should return to their pre-construction condition.

3.4 MW-61

Sulfate was detected in MW-61 at a concentration of 1,160 mg/L in the March 1, 2024 sample and 1,140 mg/L in the verification sample. Both sample results exceeded the UTL for the E Pond of 474 mg/L. Changes in the concentration of sulfate concentration in groundwater may be related to atmospheric deposition or anthropogenic activities, such as new sulfate source with rainwater or surface water flushing. The elevated sulfate concentrations are related to the potential impact of reduced surface sulfate sources and not related to a release from E-Pond.

Boron was detected in MW-61 at a concentration 1.28 mg/L in the March 1, 2024 sample and 5.24 mg/L in the March 29, 2024, verification sample. Both sample results exceeded the UTL for the E Pond of 0.12 mg/L. The boron data are consistent with the data collected from 2017 to 2021. As discussed in Section 2.2 of this ASD, boron has a positive correlation to EC and salinity in groundwater, such that the desorption of boron from mineral surfaces favors elevated EC and salinity conditions in the aquifer. The concentration of sulfate and chloride in MW-61 further reinforce that elevated concentrations of boron are related to elevated EC and salinity in the aquifer.

Section 4
Conclusions

Based on statistical evaluation of the March 1, 2024, semi-annual detection monitoring event and the March 29, 2024 verification sampling events analytical results, boron, sulfate, and TDS were identified as apparent SSIs for three downgradient monitoring wells for the 14th semi-annual detection monitoring event. This ASD has identified the following lines of reasoning that support alternative sources for these apparent SSIs.

- The bottom of the E Pond clay liner is separated from the upper aquifer system by a confining unit that hydraulically isolates the bottom of the E Pond from the upper aquifer system. Improperly installed or damaged monitoring wells may have historically provided a conduit for CCR constituents to migrate into the upper aquifer system.
- The former, historical presence of CCR materials in the vicinity of the monitoring wells prior to their modification to include risers from the ground surface provided an opportunity for surface materials to inadvertently enter the wells directly from the ground surface.
- Water quality improved incrementally with each improvement to the CCR groundwater monitoring network over time. In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the former location of MW-38. Analytical date for August 2019 for MW-38R indicates significantly improved overall groundwater quality data.
- It appears that the construction activities that occurred during the retrofit of the E Pond per the federal CCR Rule and the Closure Plan during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
    - As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
    - Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
    - Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
    - As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.
- As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

- Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the E Pond have been shown to be responsible for each of the eight apparent SSIs observed. Based on this successful ASD, NRG will continue performing semi-annual detection monitoring for the E Pond per 30 TAC Chapter 352.

Section 5
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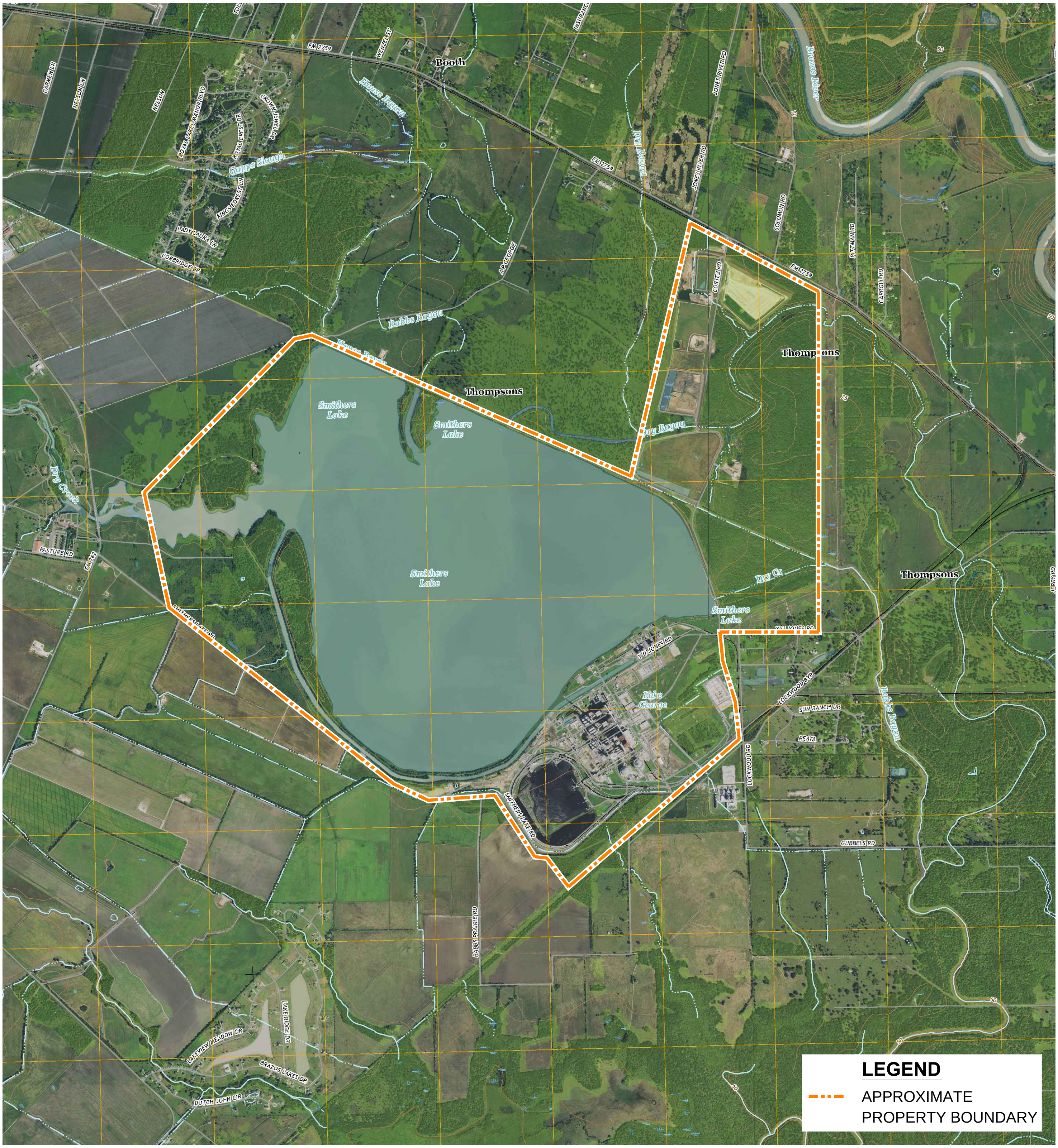
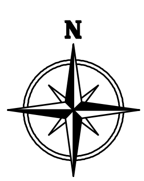
Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
MISSOURI CITY, TEXAS (2016) / SMITHERS LAKE, TEXAS (2016) / SUGAR LAND, TEXAS (2016) / THOMPSONS, TEXAS (2016)

TEXAS
QUADRANGLE LOCATION



0 2,000' 4,000' 8,000'

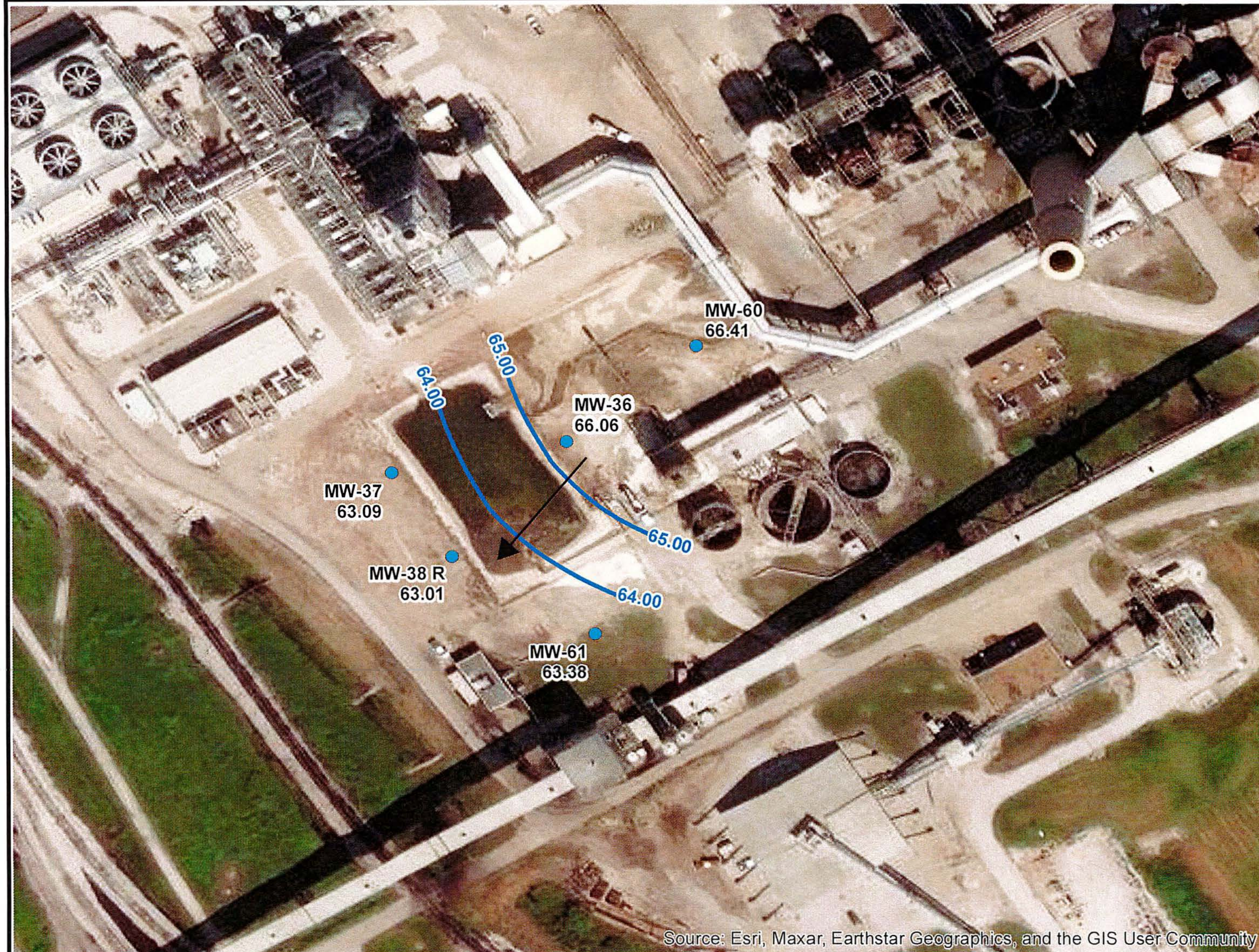
SCALE IN FEET
1" = 4,000'-0"

PROJECT:	**NRG TEXAS POWER, LLC** **W.A. Parish Station** **Thompsons, Texas**
TITLE:	**SITE LOCATION MAP**
DRAWN BY:	O. Fonseka
CHECKED BY:	T. Dworaczyk
APPROVED BY:	T. Dworaczyk
DATE:	DECEMBER 2022
PROJECT No.:	478259.0001.0000
	FIGURE 1

TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079
Phone: 713.244.1000

FILE: Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg

HOU M:\ACAD-TRC\DRAFTING\CLIENT-Name- K-L-M-N-O\NRG\W.A. Parish Station - Thompsons-TX\2019 - CCR-Report\ Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg 01/16/19



Legend

- Monitor Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- **66.41** Groundwater Elevation (FT MSL)

NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON MARCH 2024

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

7-2-24

N

0 150 300
FT
1 " = 150 '
1:1,800

TRC

14701 St. Mary's Lane, Suite 500
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT:

NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

FGD EMERGENCY POND
GROUNDWATER POTENTIOMETRIC SURFACE MAP MARCH 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	JULY 2024
PROJ. NO:	585638.0000.0001
FILE:	585638.0000_2-6.mxd

FIGURE 2

Texas Commission on Environmental Quality
Waste Permits Division Correspondence Cover Sheet

Date: July 18, 2024
Facility Name: NRG-WA Parish Generating Station
Permit or Registration No.: 108

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision to TCEQ Tracking No.: ______ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☒ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

Alternative Source Demonstration

W.A. Parish Electric Generating Station
Solid Waste Disposal Area (SWMU 001) CCR Multiunit

July 2024

Prepared For
NRG Texas Power, LLC
Thompsons, Texas
TCEQ Coal Combustion Residuals (CCR) Registration No. CCR108
Industrial Solid Waste Registration No. 31631
EPA Identification No. TXD097311849

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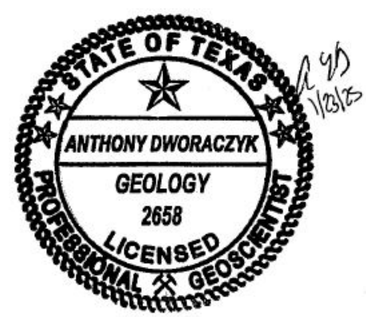
I hereby certify that the alternative source demonstration presented within this document for the NRG WA Parish Coal Ash Disposal Landfill CCR Unit has been prepared to meet the requirements of 30 TAC 352.4; 352.941(c); and 352.1321. This document is accurate and has been prepared in accordance with good geosciences practices, including the consideration of applicable industry standards, and with the requirements of 30 TAC 352.4; 352.941(c); and 352.1321.

Name: Tony Dworaczyk **Expiration Date:** 1/30/2025

Company: TRC Environmental Corporation **Date:** 1/23/2025



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Executive Summary

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas. Units managing coal combustion residuals (CCR) at the Station are subject to the requirements of 30 Texas Administrative Code (TAC) Chapter 352. CCR generated at the Station consists of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge. The Site has three active CCR management units that are subject to regulation under 30 TAC Chapter 32, including the Solid Waste Disposal Area (SWDA) multi-unit landfill (Landfill), which is the subject of this Alternate Source Demonstration (ASD).

The 14th semi-annual groundwater detection monitoring event was conducted on March 1, 2024. Verification sampling was performed on March 29, 2024. Statistical evaluation of the results was performed within 60 days of sample collection to identify apparent statistically significant increases (SSIs) above background pursuant to 30 TAC 352 Subpart H. Four apparent SSIs: calcium, sulfate, TDS, and pH; were identified. The apparent SSIs were identified in an upgradient background monitoring well MW-23R (calcium, sulfate, and TDS) and downgradient monitor well MW-46R (low pH). The apparent SSIs were confirmed during the March verification sampling. NRG notified the Texas Commission on Environmental Quality (TCEQ) of its intent to prepare an ASD on June 25, 2024.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the second half 2019 (July) through the first half 2021 (April). The March 1st 2024 semi-annual detection monitoring event analytical results, including the March 29th, 2024 verification sampling results, are the fifth data set statistically evaluated using the new background water quality data set.

This ASD successfully identified alternative sources for the apparent SSIs at the SWDA Landfill, based on the following lines of reasoning:

- Natural variations in upgradient background groundwater quality; and
- Enhanced minerals dissolution and changes in geochemical conditions within the aquifer.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the SWDA Landfill have been shown to be responsible for all the apparent SSIs observed in upgradient background monitoring well MW-23R. Based on preparation of this successful ASD, NRG will continue semi-annual detection monitoring for the SWDA Landfill per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas, adjacent to Smithers Lake. The electricity generating portion of the Station, or the main Plant Operations Area (Plant Area), is located along the southeastern shore of the lake.

Management of coal combustion residuals (CCR) at the Station is performed pursuant to 30 Texas Administrative Code (TAC) Chapter 352, which became effective during June 2021. Prior to this, management of CCR was performed pursuant to the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Part 257 (40 CFR §257) (CCR Rule, effective date October 17, 2015) and the Phase 1, Part1 final rule (July 30, 2018). CCR generated at the Station consist of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge, which have been classified by the TCEQ as Class II nonhazardous waste. The Station has the following three active CCR-management units:

- Solid Waste Disposal Area (SWDA) (SWMU 001), which consists of four active CCR-management cells: Cell 1C, Cell 2A-Pug Mill, Cell 2B, and Cell 3; and is now monitored as a single CCR Multiunit;
- Air Preheater Pond (APH Pond, SWMU 021); and
- FGD Emergency Pond (E Pond, SWMU 020).

The SWDA Landfill is located to the north of the Plant Area and the APH and E Ponds are located at the southern portion of the Plant Area. The locations of the three CCR units are shown on Figure 1. The SWDA Landfill is the subject of this Alternative Source Demonstration (ASD).

CCR-management activities at the SWDA Landfill are generally described as follows:

- Cell 1C – Receives nonmarketable CCR trucked from the plant;
- Cell 2B – Receives marketable CCR trucked from the plant;
- Cell 3 – Receives CCR bottom ash trucked from the plant; and
- Cell 2A-Pug Mill – Pug mill located at a small portion of Cell 2A and that is not currently being used for CCR management purposes.

1.1.1 Groundwater Monitoring Program

On behalf of NRG, Environmental Resources Management, Inc. (ERM) conducted eight independent background groundwater detection monitoring events for both the Appendix III and IV CCR constituents between April 2015 and August 2017 per §257.94(b) of the federal CCR Rule and the first semi-annual detection monitoring event in October 2017. Results of the eight background and first semi-annual detection monitoring events for the APH Pond were documented in the *Annual Groundwater Monitoring and Corrective Action Reports* (January 30, 2018) for the individual CCR landfill units (Cell 1C, Cell 2A, Cell 2B, and Cell 3) and the *CCR Groundwater Monitoring Reports* (March 1, 2018) for the individual CCR landfill units pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the SWDA Landfill per the federal CCR Rule and 30 TAC Chapter 352. As of the March 1, 2024 sampling event, a total of 14 semi-annual detection monitoring events have now been performed. Following each semi-annual detection monitoring sampling event, the results have been evaluated for potential SSIs, and ASDs have been prepared as needed. Since implementation of 30 TAC Chapter 352, the ASDs have been submitted to TCEQ for review and approval. The semi-annual detection monitoring activities and ASDs have been included in the Annual Groundwater Monitoring and Corrective Action reports, which have been placed into the Facility Operating Record (FOR) and posted to NRG's publicly accessible website.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the third half 2019 (July) through the first half 2021 (April). The March 2024 semi-annual detection monitoring event analytical results, including the March 2024 verification sampling results, are the sixth data set statistically evaluated using the new background water quality data set.

1.2 Purpose

TRC prepared this ASD on behalf of NRG to evaluate apparent SSIs above background levels for the 14th semi-annual detection monitoring event in accordance with 30 TAC Chapter 352.

Section 2
Site Geology and Hydrogeology

This section provides information about the geology and hydrogeology of the Station and the area surrounding the SWDA landfill.

2.1 Hydrogeology

Based on the *Geologic Atlas of Texas, Houston Sheet* (BEG 1982), the Station is underlain by alluvium and the Beaumont formation (also commonly referred to as the Beaumont Clay). The alluvium is present along the Brazos River, which is located approximately 0.9 miles from the northern boundary of the SWDA Landfill. Both the alluvium and the Beaumont formation are composed of clay, silt, and sand; and may include stream channel, point-bar, natural levee, back swamp, coastal marsh, and mud-flat deposits. The thickness of the Beaumont formation is approximately 100 feet. The alluvium is not present at the Plant Area, which is consistent with this area being located outside of the Brazos River floodplain zone (FBC, 2018).

The alluvium and Beaumont Formation are located within the upper unit of the Chicot aquifer system. At most locations throughout Fort Bend County, the Chicot aquifer system is under confined conditions (TWDB 1990). The Chicot aquifer system is primarily recharged by precipitation at locations where it outcrops in Austin, Harris, and Waller Counties; groundwater then flows laterally within Fort Bend County (TWDB 1990). Site investigations performed by others on behalf of NRG also indicate that the uppermost groundwater-bearing units at the Station are under confined conditions (ERM, 2017a).

Environmental site investigations conducted in May 2016 and November 2016 identified three main subsurface strata at the Station, which were designated as Stratum DA-1 through DA-3 at the SWDA Landfill and Stratum PA-1 through PA-3 at the Plant Area (APH Pond and E Pond). The strata are fully described in the October 2017 *CCR Groundwater Monitoring Networks* report (ERM, 2017b) and are summarized below.

2.1.1 Stratum DA-1 (Upper Confining Unit)

Stratum DA-1 is predominately silty clay with some sandy clay, clay, and sandy silt. Stratum DA-1 is generally present from the ground surface to approximately 30 feet below ground surface (bgs), but this stratum ranges in thickness from 20 to 60 feet throughout the SWDA Landfill.

Stratum DA-1 serves as a confining unit to underlying Stratum DA-2, which comprises the uppermost groundwater-bearing unit at the Station. Geotechnical laboratory testing indicates that the hydraulic conductivity of Stratum DA-1 is 2.85E-08 centimeters per second (cm/sec) (ERM 2017b).

2.1.2 Stratum DA-2 (Upper Aquifer System)

Stratum DA-2 consists of interbedded sand, silty sand, clayey sand, and clayey sandy silt with some gravelly sand. The clay content within Stratum DA-2 varies across the SWDA. Stratum DA-2 is generally greater than 10 feet in thickness with bottom depths ranging from 60 to 80 feet bgs.

Stratum DA-2 is saturated and comprises the upper aquifer system at the SWDA Landfill. CCR monitoring wells at the SWDA Landfill are completed within Stratum DA-2. Slug testing results for CCR monitoring wells indicate hydraulic conductivity ranges from 6.86E-04 cm/sec to 2.59E-02 cm/sec in Stratum DA-2 (ERM, 2017b). Groundwater primarily flows to the northeast towards the Brazos River beneath the SWDA Landfill.

2.1.3 Stratum DA-3 (Lower Confining Unit)

Stratum DA-3 is predominantly clay to silty clay. This stratum appears to be the bottom confining layer to the overlying groundwater-bearing unit (Stratum DA-2). The thickness of Stratum DA-3 has not been determined at the SWDA Landfill.

2.1.4 Solid Waste Disposal Area – Certified Monitored Network

Four separate groundwater monitoring well systems were initially developed in 2016 for each of the four active CCR cells within the SWDA Landfill, which were certified by a Texas P.E. under 257.91(f) of the federal CCR Rule on October 17, 2017. The monitoring wells were completed into Stratum DA-2, the upper aquifer system at the Station.

Following successful preparation of the ASD in July 2018 for the first semi-annual detection monitoring event for the SWDA Landfill, the four individual CCR cells were combined into a single CCR multiunit landfill as allowed for in the federal CCR Rule for groundwater monitoring purposes. A revised groundwater monitoring system and revised statistical method were developed and certified by a Texas professional engineer (P.E.) for the SWDA Landfill. The monitoring wells comprising the revised groundwater monitoring system are shown in Table 1.

Table 1 Groundwater Monitoring System for SWDA CCR-Multiunit

UPGRADIENT WELLS	DOWNGRADIENT WELLS
MW-23R, MW-28D, MW-42, MW-43, MW-47, and MW-48	MW-44, MW-46R, MW-50, MW-52, MW-54, MW-55R, MW-58, and MW-65

Because of potential integrity issues with the construction of background monitoring well MW-23 (potential infiltration of grout into the well screen), it was replaced by MW-23R after the seventh quarterly background monitoring event, which occurred in January 2020. MW-23R was installed in close proximity to MW-23. A groundwater potentiometric surface map was prepared by TRC for the March 1, 2024 semi-annual detection monitoring event and is provided in this ASD as Figure 2. Historically, groundwater flows primarily to the northeast beneath the SWDA CCR multiunit at a gradient ranging from 0.0007 foot per foot (ft/ft) to 0.003 ft/ft.

2.2 Groundwater Geochemistry

Understanding the geochemistry of groundwater is essential to examining the groundwater monitoring data, explaining the relationships between the characteristics of the groundwater, and analyzing both natural and potential anthropogenic impacts on groundwater. Separate from potential source areas of contamination, geochemical processes are critical in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions, and adsorption-desorption processes. Based on the site geological conditions, several groundwater parameters are discussed as follows, including sulfate and boron.

2.2.1 Calcium in Groundwater

Calcium is one of the most important ionic constituents in groundwater (Razowska-jaworek, 2014). Water-rock interaction occurs when water interacts with minerals in soils or rocks, such as limestone, marble, calcite, dolomite, gypsum, fluorite, and apatite. Natural dissolution of carbonate rocks and minerals is the primary source of calcium in groundwater (Jiang et al., 2009). Calcium is an important determinant of water hardness (Ca^{2+}), while magnesium is the other hardness determinant. The most common shallow groundwater type is Ca-HCO_3 dominated and Ca(Mg)-HCO_3 dominated.

A literature review indicates the major factors that may influence the calcium concentration in groundwater include rock weathering, soil pH, electrical conductivity, and anthropogenic activities (mining, concrete material dissolution, fertilizer etc.) (Hájek et al., 2021; Schot & Wassen, 1993; Shi et al., 2018).

Regarding the concentrations of calcium in groundwater at the SWDA, the source of calcium is more likely natural rather than anthropogenic. Therefore, the increase in concentration of calcium may be related to natural variations in groundwater geochemistry associated with rock weathering, soil pH, and electrical conductivity.

2.2.2 Sulfate in Groundwater

Sulfate is ubiquitous in groundwater, with both natural and anthropogenic sources. Apart from a potential sulfate source area, the primary origin of sulfate includes mineral dissolution, atmospheric deposition, and other anthropogenic sources (Miao et al., 2012). As water moves through soil and rock formations that contain sulfate minerals, some of the sulfate dissolves into the groundwater. Minerals that contain sulfate include magnesium sulfate (Epsom salt), sodium sulfate (Glauber's salt), and calcium sulfate (gypsum). Gypsum is an important contributor to the high levels of sulphate in many aquifers of the world.

Elevated concentrations of sulfate in groundwater are common in the western part of the United States (MDH, 2008).

Sulfate is mobile in soil and inputs to soil will impact groundwater. Research investigations indicate that atmospheric deposition, dissolution of gypsum, oxidation of sulfide mineral, and anthropogenic inputs will contribute to elevated sulfate concentrations in groundwater. Based on the hydrogeology at the SWDA Landfill, atmospheric deposition and anthropogenic activities could be impacting sulfate concentrations (Einsiedl & Mayer, 2005; Pu et al., 2012).

2.2.3 TDS in Groundwater

Total dissolved solids (TDS) represent the combined total of inorganic and organic substances present in groundwater, and TDS can be a general indicator of water quality. These solids typically consist of minerals, salts, and organic matter, which may originate from sources such as weathering of minerals, storm water runoff, sewage, effluent discharges, agriculture, decaying organisms, and anthropogenic sources. Common salts that contribute to TDS are sodium, chloride, calcium, magnesium, potassium, sulfate, and bicarbonate. (Olumuyiwa I. Ojo, 2012)

TDS concentrations in groundwater is usually higher than surface water due to the longer contact time for groundwater with underlying soil and rocks. Since many minerals are water soluble, high concentrations can accumulate over time through the processes of precipitation and evaporation.

TDS is related to other water quality parameters such as hardness, which may occur if an elevated concentration of TDS is associated with the presence of carbonates. Research investigations have evaluated the relationship between TDS and other groundwater parameters such as EC and salinity (Atekwana et al., 2004; Banadkooki et al., 2020; Poursaeid et al., 2020).

2.2.4 pH

The one apparent pH SSI identified in MW-46R appears to be related to natural variations in groundwater quality resulting in changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP) and are also related to changes in the measured concentrations of CCR constituents.

Section 3
Alternative Source Demonstration

The 14th semi-annual detection monitoring event was conducted on March 1, 2024, per 30 TAC Chapter 352. Statistical evaluation of the results (comparison of downgradient monitoring results to 95 percent confidence/95 percent coverage upper tolerance limits [UTLs]) was performed within 60 days of sample collection to identify apparent SSIs above background pursuant to 30 TAC 352, Subpart H. Four apparent SSIs were identified: calcium, sulfate, TDS, and pH.

As part of the ASD activities, verification sampling was conducted on March 29, 2024, for the apparent SSIs. Statistical evaluation to identify SSIs for the verification sampling was performed within 60 days of sample collection. Four apparent SSIs were confirmed: calcium, sulfate, TDS, pH. Based on the results of the verification sampling and statistical analysis, NRG notified the TCEQ of its intent to prepare an ASD on May 14, 2024, addressing the apparent SSIs.

The UTLs and sampling results for the apparent SSIs are provided in Table 1 below.

Table 2 SSIs – March 2024 Semiannual Detection Monitoring Event

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
UPGRADIENT MONITORING WELLS						
Calcium	MW-23R	N/A	420	3/29/2024	500	mg/L
Sulfate	MW-23R	N/A	670	3/29/2024	1.460	mg/l
TDS	MW-23R	N/A	3,700	3/29/2024	3,940	mg/L
DOWNGRADIENT MONITORING WELLS						
pH	MW-46R	6.9	8.8	3/29/2024	6.48	s.u.

Notes: UG = Upgradient
mg/L = milligrams per Liter

3.1 MW-23R

MW-23R is an upgradient background groundwater monitoring well at the SWDA Landfill. Three apparent SSIs were identified in MW-23R. MW-23 had been replaced by MW-23R after the seventh quarterly background monitoring event, which occurred in January 2020 due to the potential presence of grout within the well screen.

Calcium was detected in MW-23R at a concentration of 500 mg/L in the March 29, 2024, verification sample and at a concentration of 405 mg/L in the October 9, 2023 sample. The March 2024 sample results exceeded the UTL for the SWDA Landfill of 420 mg/L but is an insufficient change between sampling events. The calcium data are consistent with the prior sampling events. MW-23R is located hydraulically upgradient and is an upgradient background monitoring location for the SWDA Landfill. Therefore, the calcium SSI in MW-23R is associated with natural variations in the geochemistry of groundwater in the aquifer and is not related to a release from the SWDA Landfill.

Sulfate was detected in MW-23R at a concentration of 1,1370 mg/L in the March 1, 2024 sampling event and 1,460 mg/L in the March 29, 2024 verification sample. Both sample results exceeded the UTL for the SWDA Landfill of 670 mg/L but is an insufficient change between sampling events. The sulfate data are consistent with the prior sampling events. MW-23R is located hydraulically upgradient and is an upgradient background monitoring location for the SWDA Landfill. Therefore, the sulfate SSI in MW-23R is associated with natural variations in the geochemistry of groundwater in the aquifer and is not related to a release from the SWDA Landfill.1

TDS was detected in MW-23R at a concentration of 3,940 mg/L in the March 29, 2024 verification sample. The March 29, 2024, sample result exceeded the UTL for the SWDA Landfill of 670 mg/L. The apparent TDS SSIs identified in MW-23R appears to be related to natural variations in groundwater quality in the subsurface resulting in changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP) and are also related to changes in the measured concentrations of CCR constituents.

3.2 MW-46R

pH was measured in MW-46R at a value of 6.48 S.U. in the March 29, 2024, verification sample and at a value of 7.04 S.U. in the October 9, 2023 sample. The March 2024 sample results were less than the LTL for the SWDA Landfill of 6.9 S.U. and are generally consistent with prior sampling events but is an insufficient change between sampling events. MW-46R is located hydraulically downgradient of the SWDA Landfill. Therefore, the apparent pH SSI in MW-46R is associated with natural variations in the geochemistry of groundwater in the aquifer such as pH and oxidation-reduction potential (ORP)and is not related to a release from the SWDA Landfill.

Section 4
Conclusions

Based on statistical evaluation of the March 1, 2024, semi-annual detection monitoring event and the March 29, 2024 verification sampling event analytical results, three apparent SSIs: calcium, sulfate, and TDS were identified in upgradient background monitor well MW-23R, and one apparent SSI; pH was identified in downgradient monitor well MW-46R for the SWDA Landfill. This ASD has identified the following lines of reasoning that support alternative sources for the apparent SSIs:

- Natural variations in upgradient background groundwater quality; and
- Enhanced minerals dissolution and changes in geochemical conditions within the aquifer.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the SWDA Landfill have been shown to be responsible for all three apparent SSIs observed in upgradient background monitoring well MW-23R and the one apparent SSI observed in MW-46R. Based on preparation of this successful ASD, NRG will continue semi-annual detection monitoring for the SWDA Landfill per 30 TAC Chapter 352.

Section 5
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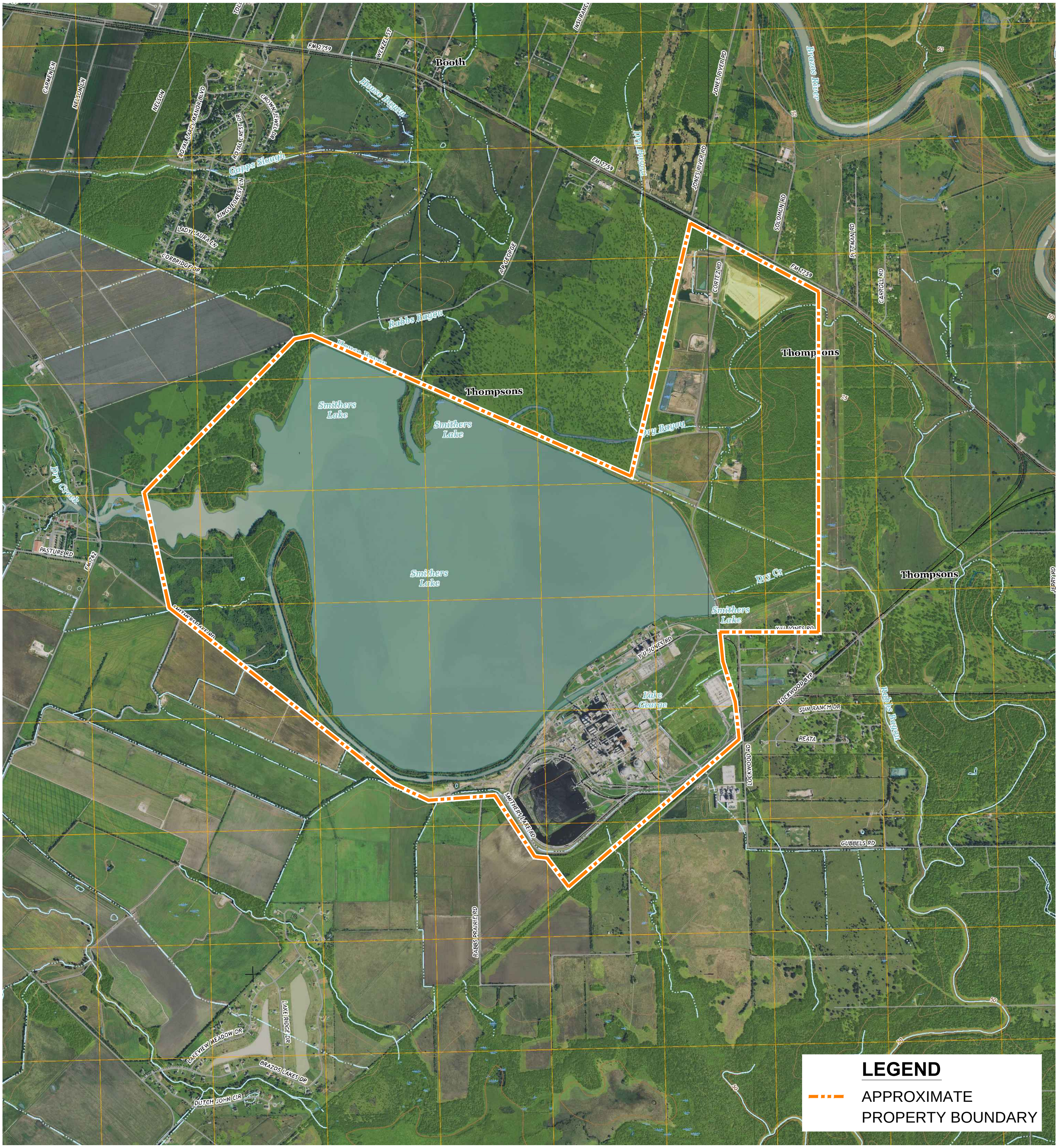
Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
MISSOURI CITY, TEXAS (2016) / SMITHERS LAKE, TEXAS (2016) / SUGAR LAND, TEXAS (2016) / THOMPSONS, TEXAS (2016)

TEXAS
QUADRANGLE LOCATION

N

0 2,000' 4,000' 8,000'

SCALE IN FEET
1" = 4,000'-0"

PROJECT:	**NRG TEXAS POWER, LLC** **W.A. Parish Station** **Thompsons, Texas**
TITLE:	**SITE LOCATION MAP**
DRAWN BY:	O. Fonseka
CHECKED BY:	T. Dworaczyk
APPROVED BY:	T. Dworaczyk
DATE:	DECEMBER 2022
PROJECT No.:	478259.0001.0000
	FIGURE 1

TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079
Phone: 713.244.1000

FILE: Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg

HOU M:\ACAD-TRC\DRAFTING\CLIENT-Name- K-L-M-N-O\NRG\W.A. Parish Station - Thompsons-TX\2019 - CCR-Report\ Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg 01/16/19

LEGEND

- Multiunit Upgradient Monitor Well
- Multiunit Downgradient Monitor Well

49.95 Groundwater Elevation (FT MSL)

Groundwater Flow Direction

Groundwater Elevation Contour - Dashed where Inferred (FT MSL)

NOTE: GROUNDWATER ELEVATION MEASURED BY HMI ON MARCH 2024.

0 250 500

Feet

1 " = 500 '

1:6,000

N

TRC

14701 St. Mary's Lane, Suite 500
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT: NRG TEXAS POWER, LLC W.A. PARISH STATION THOMPSONS, TEXAS	DRAWN BY:	F. YARBROUGH
	CHECKED BY:	J. ATWELL
	APPROVED BY:	A. DWORACZYK
	DATE:	JULY 2024
TITLE: SOLID WASTE DISPOSAL AREA GROUNDWATER POTENTIOMETRIC SURFACE MAP MARCH 2024	PROJ NO:	585638.0000.0000
	FILE:	585638.0000_2-4.mxd
	FIGURE 2	

Texas Commission on Environmental Quality
Waste Permits Division Correspondence Cover Sheet

Date: January 31, 2025
Facility Name: NRG-WA Parish Generating Station
Permit or Registration No.: CCR108

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision to TCEQ Tracking No.: ______ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☒ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

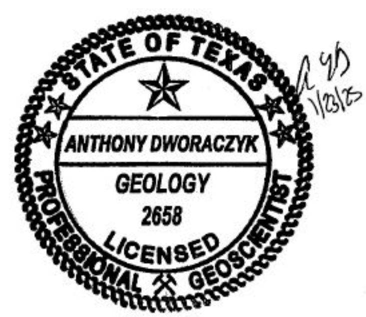
Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

I hereby certify that the alternative source demonstration presented within this document for the NRG WA Parish Coal Ash Disposal Landfill CCR Unit has been prepared to meet the requirements of 30 TAC 352.4; 352.941(c); and 352.1321. This document is accurate and has been prepared in accordance with good geosciences practices, including the consideration of applicable industry standards, and with the requirements of 30 TAC 352.4; 352.941(c); and 352.1321.

Name: Tony Dworaczyk **Expiration Date:** 1/30/2025

Company: TRC Environmental Corporation **Date:** 1/23/2025



Alternative Source Demonstration

W.A. Parish Electric Generating Station
Air Preheater Pond (SWMU 021)

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

January 2025

Prepared For
NRG Texas Power, LLC
Thompsons, Texas
TCEQ Coal Combustion Residuals (CCR) Registration No. CCR108
Industrial Solid Waste Registration No. 31631
EPA Identification No. TXD097311849

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Executive Summary

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas. Units managing coal combustion residuals (CCR) at the Station are subject to the requirements of 30 Texas Administrative Code (TAC) Chapter 352. CCR generated at the Station consists of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge. The Site has three active CCR management units that are subject to regulation under 30 TAC Chapter 32, including the Air Preheater Pond (APH) Pond, which is the subject of this Alternative Source Demonstration (ASD).

The 15th semi-annual groundwater detection monitoring event was conducted on August 28, 2024. Statistical evaluation of the results was performed within 60 days of sample collection to identify apparent statistically significant increases (SSIs) above background pursuant to 30 TAC 352 Subpart H. Three apparent SSIs, boron, calcium, and sulfate were initially identified. Verification sampling was performed on September 26, 2024. Based on the results of the verification sampling, two apparent SSIs were identified: boron and sulfate. NRG notified the Texas Commission on Environmental Quality (TCEQ) of its intent to prepare an ASD.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the second half 2019 (July) through the first half 2021 (April). The August 28, 2024, semi-annual detection monitoring event analytical results, including the September 26, 2024, verification sampling results, are the seventh data set statistically evaluated using the new background water quality data set.

This ASD successfully identified alternative sources for apparent SSIs at the APH Pond, based on the following lines of reasoning:

- It appears that the construction activities that occurred during the retrofit of the APH Pond per the federal CCR Rule during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
  - As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
  - Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;

- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

■ As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

■ Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition; and

■ Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

Therefore, since retrofit construction activities have been completed recently and it appears the uppermost aquifer system is continuing to re-equilibrate, NRG will continue performing semi-annual detection monitoring for the APH Pond per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas, adjacent to Smithers Lake. The electricity generating portion of the Station, or the main Plant Operations Area (Plant Area), is located along the southeastern shore of the lake.

Management of coal combustion residuals (CCR) at the Station is performed pursuant to 30 Texas Administrative Code (TAC) Chapter 352, which became effective during June 2021. Prior to this, management of CCR was performed pursuant to the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Part 257 (40 CFR §257) (CCR Rule, effective date October 19, 2015).

CCR generated at the Station consist of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge, which have been classified by the TCEQ as Class II nonhazardous waste. The Station has the following three active CCR-management units:

- Solid Waste Disposal Area (SWDA) (SWMU 001), which consists of four active CCR-management cells: Cell 1C, Cell 2A-Pug Mill, Cell 2B, and Cell 3; and is now monitored as a single CCR Multiunit;
- Air Preheater Pond (APH Pond, SWMU 021); and
- FGD Emergency Pond (E Pond, SWMU 020).

The APH Pond receives effluent from air preheater wash and boiler cleaning wash, which consists of fly ash or economizer ash particles and water. The APH Pond is located at the southern portion of the Plant Area as shown on Figure 1 and is the subject of this Alternative Source Demonstration (ASD).

1.1.1 Retrofit Construction Activities

During 2020 and 2021, the APH Pond was removed from service and retrofitted per §257.102(k) of the federal CCR Rule. As part of these activities, the CCR within the impoundment was dewatered, all water and CCR was removed from the impoundment, and the APH Pond area was decontaminated based on over-excavating a minimum of 6-inches of clay liner material after removal of CCR. After CCR removal and decontamination had been confirmed, a federal CCR Rule bottom composite liner system was then installed and the APH Pond was placed back into service as a CCR unit compliant with both the federal and TCEQ CCR programs.

During retrofit construction activities for the APH Pond, upgradient groundwater monitoring well MW-39 was apparently destroyed and could not be located during the April 2021 semi-annual detection monitoring event. Therefore, MW-39 was replaced by MW-39R that was installed in the approximate location of MW-39 prior to performance of the October 2021 semi-annual detection monitoring event.

Furthermore, during retrofit construction activities, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
- Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

1.1.2 Groundwater Monitoring Program

On behalf of NRG, Environmental Resources Management, Inc. (ERM) conducted eight independent background groundwater detection monitoring events for both the Appendix III and IV CCR constituents between April 2015 and August 2017 per §257.94(b) of the federal CCR Rule and the first semi-annual detection monitoring event in October 2017. Results of the eight background and first semi-annual detection monitoring events for the APH Pond were documented in the *Annual Groundwater Monitoring Report, Landfill (Unit 004)* (ERM 2018a) and the *Annual Groundwater Monitoring Report, APH Pond (Unit 021)* (ERM 2018a) and the March 1, 2018, *Groundwater Monitoring Report, APH Pond* (SWMU Unit 021) (ERM 2018b) pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the APH Pond per the federal CCR Rule and 30 TAC Chapter 352. As of the August 28, 2024, sampling event and the September 26, 2024, verification sampling event, a total of 15 semi-annual detection monitoring events have now been performed. Following each semi-annual detection monitoring sampling event, the results have been evaluated for potential SSIs, and ASDs have been prepared as needed. Since implementation of 30 TAC Chapter 352, the ASDs have been submitted to TCEQ for review and approval. The semi-annual detection monitoring activities and ASDs have been included in the Annual Groundwater Monitoring and Corrective Action reports, which have been placed into the Facility Operating Record (FOR) and posted to NRG's publicly accessible website.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the third half 2019 (July) through the first half 2021 (April). The August 28, 2024, semi-annual detection monitoring event analytical results, including the September 26, 2024, verification sampling results, are the seventh data set statistically evaluated using the new background water quality data set.

1.2 Purpose

TRC prepared this ASD to evaluate apparent SSIs above background levels for the 15th semi-annual detection monitoring event in accordance with 30 TAC Chapter 352.

Section 2
Site Geology and Hydrogeology

This section provides information about the geology and hydrogeology of the Station and the area at and surrounding the APH Pond.

2.1 Hydrogeology

According to the *Geologic Atlas of Texas, Houston Sheet* (BEG 1982), the Station is underlain by alluvium and the Beaumont formation (also commonly referred to as the Beaumont Clay). The alluvium is present along the Brazos River, which is located approximately 0.9 miles from the northern boundary of the SWDA CCR units. Both the alluvium and the Beaumont formation are composed of clay, silt, and sand; and may include stream channel, point-bar, natural levee, back swamp, coastal marsh, and mud-flat deposits. The thickness of the Beaumont formation is approximately 100 feet. The alluvium is not present at the Plant Area, which is consistent with this area being located outside of the Brazos River floodplain zone (FBC 2018). The APH Pond and the E Pond are both located at the Plant Area.

The alluvium and the Beaumont Formation are located within the upper unit of the Chicot aquifer system. At most locations throughout Fort Bend County, the Chicot aquifer system is under confined conditions (TWDB 1990). The Chicot aquifer system is primarily recharged by precipitation at locations where it outcrops in Austin, Harris, and Waller Counties; groundwater then flows laterally within Fort Bend County (TWDB 1990). Site investigations performed by others on behalf of NRG also indicate that the uppermost groundwater-bearing units at the site are under confined conditions (ERM 2017a).

Environmental investigations conducted in May 2016 and November 2016 by ERM identified three main subsurface strata at the Station, which were designated as Stratum DA-1 through DA-3 at the SWDA and stratum PA-1 through PA-3 at the Plant Area (APH Pond and E Pond). The strata are fully described in the October 2017 *CCR Groundwater Monitoring Networks* report (ERM 2017b) and are summarized below.

2.1.1 Stratum PA-1 (Upper Confining Unit)

Stratum PA-1 is predominately silty clay with some sandy clay, clay, and sandy silt. Stratum PA-1 is present from the ground surface to depths ranging from 15 feet bgs to 32 feet bgs.

Stratum PA-1 serves as a confining unit to underlying Stratum PA-2, which comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. Geotechnical laboratory testing indicates that the hydraulic conductivity of Stratum PA-1 is 2.03E-08 centimeters per second (cm/sec) (ERM 2017b).

2.1.2 Stratum PA-2 (Upper Aquifer)

Stratum PA-2 is predominantly silty sand with varying sand and silt content and trace clay. Stratum PA-2 is generally greater than 10 feet in thickness with bottom depths ranging from 60 to 80 feet bgs.

Stratum PA-2 is saturated and comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. CCR monitoring wells in the Plant Area are completed within Stratum PA-2. Slug testing results for CCR monitoring wells indicate hydraulic conductivity ranges from 6.68E-04 cm/sec to 4.26E-02 cm/sec in Stratum PA-2 (ERM 2017b). Groundwater primarily flows to the southwest beneath the E Pond, and to the southeast beneath the APH Pond.

2.1.3 Stratum PA-3 (Lower Confining Unit)

Stratum PA-3 is predominantly clay to silty clay. This stratum appears to be the bottom confining layer to the overlying groundwater-bearing unit (Stratum PA-2). The thickness of Stratum PA-3 has not been defined.

2.1.4 Air Preheater Pond - Certified Monitoring Network

The certified CCR groundwater monitoring well network for the APH Pond consists of six groundwater monitoring wells (MW-39R, MW-40, MW-41, MW-62, MW-63, and MW-64) completed into Stratum PA-2. A groundwater potentiometric surface map was prepared by TRC for the March 1, 2024, semi-annual detection monitoring event and is provided in this ASD as Figure 2. Historically, groundwater flows to the southeast beneath the APH Pond at a gradient ranging from approximately 0.002 feet per foot (ft/ft) to 0.006 ft/ft.

The groundwater monitoring system for the APH Pond was originally certified per the federal CCR Rule on October 17, 2017. The original certified CCR groundwater monitoring well network for the APH Pond designated one upgradient monitoring well (MW-62) and five downgradient monitoring wells (MW-39, MW-40, MW-41, MW-63, and MW-64). However, based on TRC's review of groundwater elevation data measured for the semi-annual detection monitoring events and preparation of potentiometric surface maps, two of the initially designated downgradient monitoring wells (MW-39 and MW-40) were found to be located upgradient of the APH Pond as shown on the March 1, 2024, groundwater potentiometric surface map (Figure 2). Therefore, the CCR monitoring well system for the APH Pond was revised and consists of three upgradient monitoring wells (MW-39R, MW-40, and MW-62) and three downgradient monitoring wells (MW-41, MW-63, and MW-64).

During retrofit construction activities for the APH Pond during 2020 and 2021 per the federal CCR Rule, upgradient groundwater monitoring well MW-39 was apparently destroyed and could not be located during the April 2021 detection monitoring event. A replacement monitoring well (MW-39R) was installed during 2021 in close proximity to the location of former well MW-39 prior to the October 2021 semi-annual detection monitoring event and was monitored during that detection monitoring event.

2.2 Site Specific Information

Subsurface data from a soil boring recently installed as part of the current monitoring network at the nearby Emergency Pond (E-Pond) at the Station indicate that the subsurface geology beneath the W.A. Parish generating facility consists predominately of clays, silty clays with sandy clay, sandy silt, and sands and is consistent across the Station (ERM, Groundwater Monitoring networks, October 2017).

During the original installation of monitor wells for the W.A. Parish CCR monitoring networks, soil samples were not collected for Appendix III & IV CCR constituent analyses. In November 2024, monitor well MW-61R was installed at the E-Pond to replace MW-61 as part of the construction of a Zero Liquid Discharge (ZLD) wastewater treatment facility required under the Effluent Limitation Guidelines (ELG) for coal-fired power plants. During the installation of MW-61R, soil samples of native subsurface soils were collected on November 7, 2024, and analyzed for the Appendix III & IV CCR constituents. The soil samples were collected from the 3 to 4 feet and from the 26 to 27 feet intervals. The laboratory analytical results for boron and sulfate, which are the apparent SSIs for this 15th semi-annual detection monitoring event ASD, are summarized below:

Constituent	3-4’ bgs	27-27’bgs
Boron	3.39 mg/kg	7.35 mg/Kg
Sulfate	57.3 mg/Kg	83.0 mg/Kg

Based on the consistency of the subsurface soils at the APH Pond and the E-Pond, and the close proximity of the APH Pond to the E-Pond, the subsurface soil laboratory analytical results for the E-Pond are considered to be representative for both CCR Units. The laboratory analytical report is included as Appendix A of this ASD. As shown in the above table, the concentrations of boron and sulfate in soils increased with depth.

Based on the results of the November 7, 2024, subsurface soils sampling event, Appendix III & IV CCR constituents naturally occur in the native soils at the Station. This indicates that Appendix III & IV CCR constituents occur naturally rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

2.3 Groundwater Geochemistry

Understanding the geochemistry of groundwater is essential to examining the groundwater monitoring data, explaining the relationships between the characteristics of the groundwater, and analyzing both natural and potential anthropogenic impacts on groundwater. Separate from potential source areas of contamination, geochemical processes are critical in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions, and adsorption-desorption processes. Based on the hydrogeology of the APH Pond, boron and sulfate are discussed in the subsections below.

Therefore, separate from potential source areas of contamination, geochemical processes are critical in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions, and adsorption-desorption processes and leaching of constituents from the soil into the groundwater.

2.3.1 Boron in Groundwater

Boron is normally considered to be a minor constituent in groundwater since it is generally present in low concentrations (Palmucci & Rusi, 2014). Apart from a potential boron source area, the primary origin of boron in groundwater is typically associated with the processes of sorption and desorption from mineral surfaces including soil and bedrock (Ravenscroft & McArthur, 2004). Boron is often cited as a contaminant trace chemical and usually occurs as a non-ionized form as H_3BO_3 in soils at pH <8.5, but above this pH, it exists as an anion, $B(OH)_4^-$ (Upadhyaya et al., 2014).

The factors that may influence the concentration of boron in groundwater include weathering, human activity, evaporative concentration, ion-exchange, electrical conductivity (EC), and pH. Ravenscroft & McArthur (2004) investigated the mechanism of regional boron enrichment in groundwater and the results indicated that the main process resulting in boron enrichment in groundwater was flushing by fresh groundwater. The desorption of boron from mineral surfaces could be affected by pH, ionic strength, salinity, and the HCO_3/CO_3 ratio. Decreases in pH will increase the dissolution of boron from the mineral surfaces. Boron adsorption favors high pH and boron desorption favors low pH in rocks, soils, and organic matters (Hollis et al., 1988; Keren & Communar, 2009; Tabelin et al., 2014).

Additional investigations confirmed that the presence of boron in groundwater depends on the EC (salinity), such that the concentration of boron increases with increasing EC. Halim et al. (2010) reported that the increae in Cl^- contributes to an increase in EC value since a strong linear correlation (R^2 = 0.88) between EC and Cl^- was observed. Palmucci & Rusi (2014) observed a clear correlation between elevated concentrations of boron and the chloride-sodium facies, which are characterized by high saline content, negative redox potential, and low value of the SO_4^{2-}/Cl^- ratio. Rodriguez-Espinosa et al. (2020) determined that the concentration of boron in groundwater was related to SO_4^{2-} and the age affect.

Regarding the concentration of boron in groundwater at the APH Pond, the source of boron is natural rather than anthropogenic. Therefore, the increase in concentration of boron is related to natural variations in groundwater geochemistry, such as pH, ion exchanges, EC, and salinity.

2.3.2 Sulfate in Groundwater

The presence of sulfate is ubiquitous in groundwater, having both natural and anthropogenic sources. There are many potential sources of sulfate in groundwater including mineral dissolution, atmospheric deposition, and other anthropogenic sources (mining, fertilizer, synthetic detergents, industrial wastewater etc.) (Miao et al., 2012). As groundwater moves through soil and rock formations that contain sulfate minerals, a portion of the sulfate dissolves into the groundwater. Minerals that contain sulfate include magnesium sulfate (Epsom salt), sodium sulfate (Glauber's salt), and calcium sulfate (gypsum). Gypsum is an important contributor to elevated concentrations of sulphate in groundwater aquifers. Elevated concentrations of sulfate in groundwater are common in the western part of the United States (MDH, 2008).

Sulfate is mobile in soil and can impact groundwater quality. Multiple investigations have indicated that atmospheric deposition, dissolution of gypsum, and oxidation of sulfide minerals can contribute to the concentrations of sulfate in groundwater.

Regarding the concentration of sulfate in groundwater at the APH Pond, the source of sulfate is more likely natural rather than anthropogenic. Therefore, the increase in concentration of sulfate is related to natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition (Einsiedl & Mayer, 2005; Pu et al., 2012).

Section 3
Alternative Source Demonstration

The 15th semi-annual detection monitoring event was conducted on August 28, 2024, per 30 TAC Chapter 352. Statistical evaluation of the results (comparison of downgradient monitoring results to 95 percent confidence/95 percent coverage upper tolerance limits [UTLs]) was performed within 60 days of sample collection to identify apparent SSIs above background pursuant to 30 TAC 352, Subpart H. Three apparent SSIs were initially identified (boron, calcium, and sulfate).

As part of the ASD activities, verification sampling was conducted on September 26, 2024, for the initial three apparent SSIs. Statistical evaluation to identify SSIs for the verification sampling was performed within 60 days of the August 28, 2024, sampling event. Two apparent SSIs were confirmed: boron and sulfate. Based on the results of the verification sampling and statistical analysis, NRG notified TCEQ of its intent to prepare an ASD addressing the apparent SSIs for boron and sulfate.

The UTLs and sampling results for the three apparent SSIs are provided in Table 1 below.

Table 1 SSIs – August 2024 Semi-Annual Detection Monitoring Event

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
Calcium	MW-63	NA	290	09/26/2024	259	mg/L
Boron	MW-63	NA	0.23	09/26/2024	0.262	mg/L
Sulfate	MW-63	NA	360	08/28/2024	661	mg/L

Notes: mg/L = milligrams per Liter
S.U. = Standard Units

As discussed previously in subsection 1.1.1 of this ASD, during retrofit construction activities at the APH Pond during 2020 and 2021 per the federal CCR Rule, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
- Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and

- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and ORP, are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

In addition, as discussed previously in subsection 2.2 of this ASD, on November 7, 2024 during installation of monitor well MW-61R at the E-Pond to replace MW-61 as part of the construction of a ZLD wastewater treatment facility, soil samples of native subsurface soils were collected and analyzed for the Appendix III & IV CCR constituents. The soil samples were collected from the 3 to 4 feet and from the 26 to 27 feet intervals. The laboratory analytical results for boron and sulfate, which are the apparent SSIs for this 15th semi-annual detection monitoring event ASD, are summarized below:

Constituent	3-4' bgs	27-27'bgs
Boron	3.39 mg/kg	7.35 mg/Kg
Sulfate	57.3 mg/Kg	83.0 mg/Kg

Based on the consistency of the subsurface soils at the APH Pond and the E-Pond, and the close proximity of the APH Pond to the E-Pond, the subsurface soil laboratory analytical results for the E-Pond are considered to be representative for both CCR Units. As shown in the above table, the concentrations of boron and sulfate in soils increased with depth.

Based on the results of the November 7, 2024, subsurface soils sampling event, Appendix III & IV CCR constituents naturally occur in the native soils at the Station. This indicates that Appendix III & IV CCR constituents occur naturally rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

Section 4
Conclusions

Based on statistical evaluation of the August 28, 2024, semi-annual detection monitoring event and the September 26, 2024, verification sampling events analytical results, two apparent SSIs, boron and sulfate were identified for the APH Pond. This ASD has identified the following lines of reasoning that support alternative sources for the apparent SSI:

- It appears that the construction activities that occurred during the retrofit of the APH Pond per the federal CCR Rule during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
  - As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
  - Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
  - Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
  - As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.
- As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.
- Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition; and
- Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the retrofitted APH Pond have been shown to be responsible for the apparent SSIs observed. Based on preparation of this successful ASD, NRG will continue semi-annual detection monitoring for the APH Pond per 30 TAC Chapter 352.

Section 5
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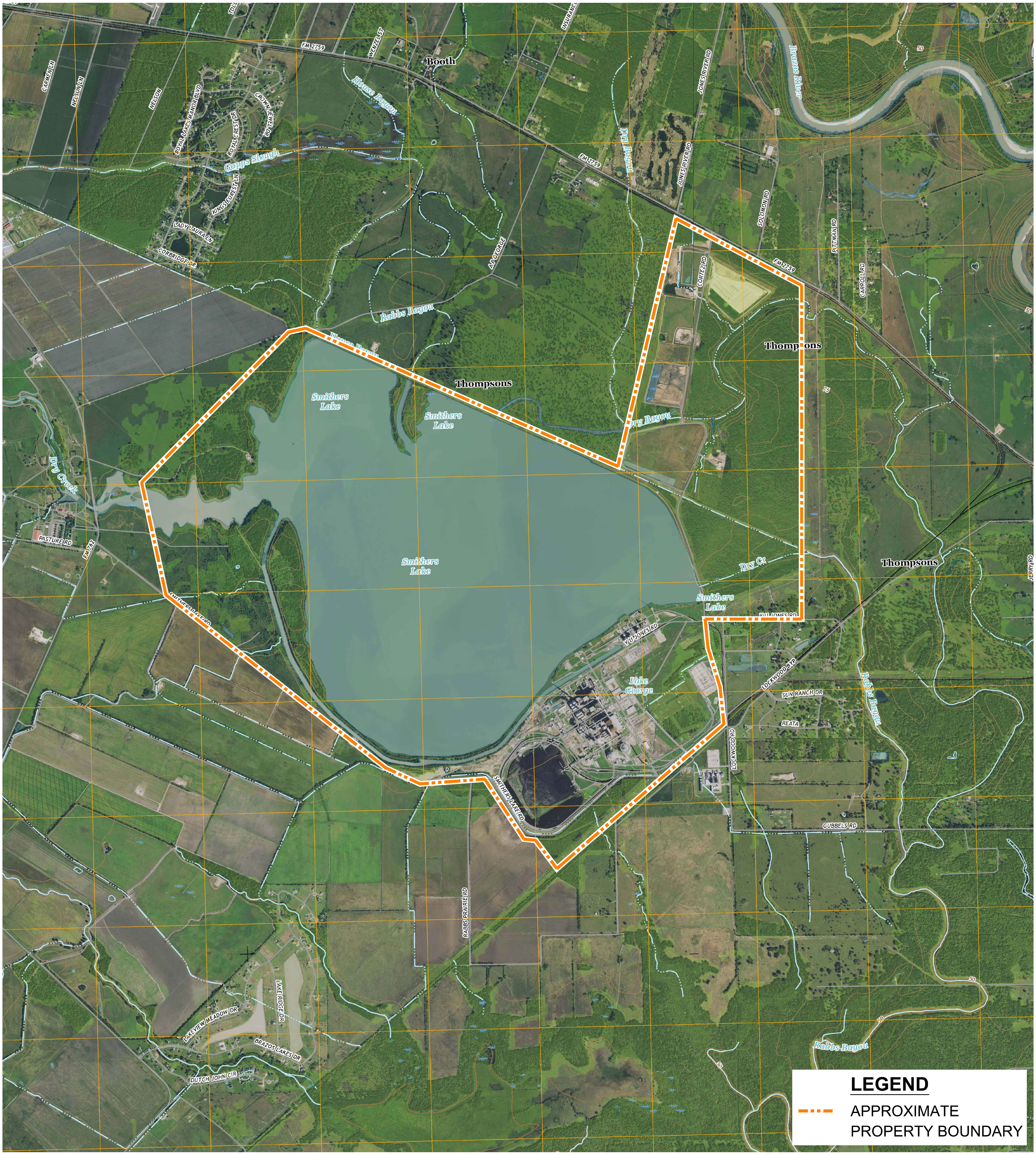
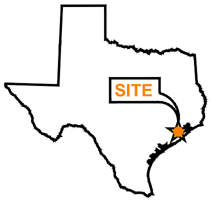
Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
MISSOURI CITY, TEXAS (2016) / SMITHERS LAKE, TEXAS (2016) / SUGAR LAND, TEXAS (2016) / THOMPSONS, TEXAS (2016)



TEXAS
QUADRANGLE LOCATION

N

0 2,000' 4,000' 8,000'
SCALE IN FEET
1" = 4,000'-0"

CLIENT / PROJECT

NRG TEXAS POWER, LLC
W.A. Parish Station
Thompsons, Texas

TITLE

SITE LOCATION MAP

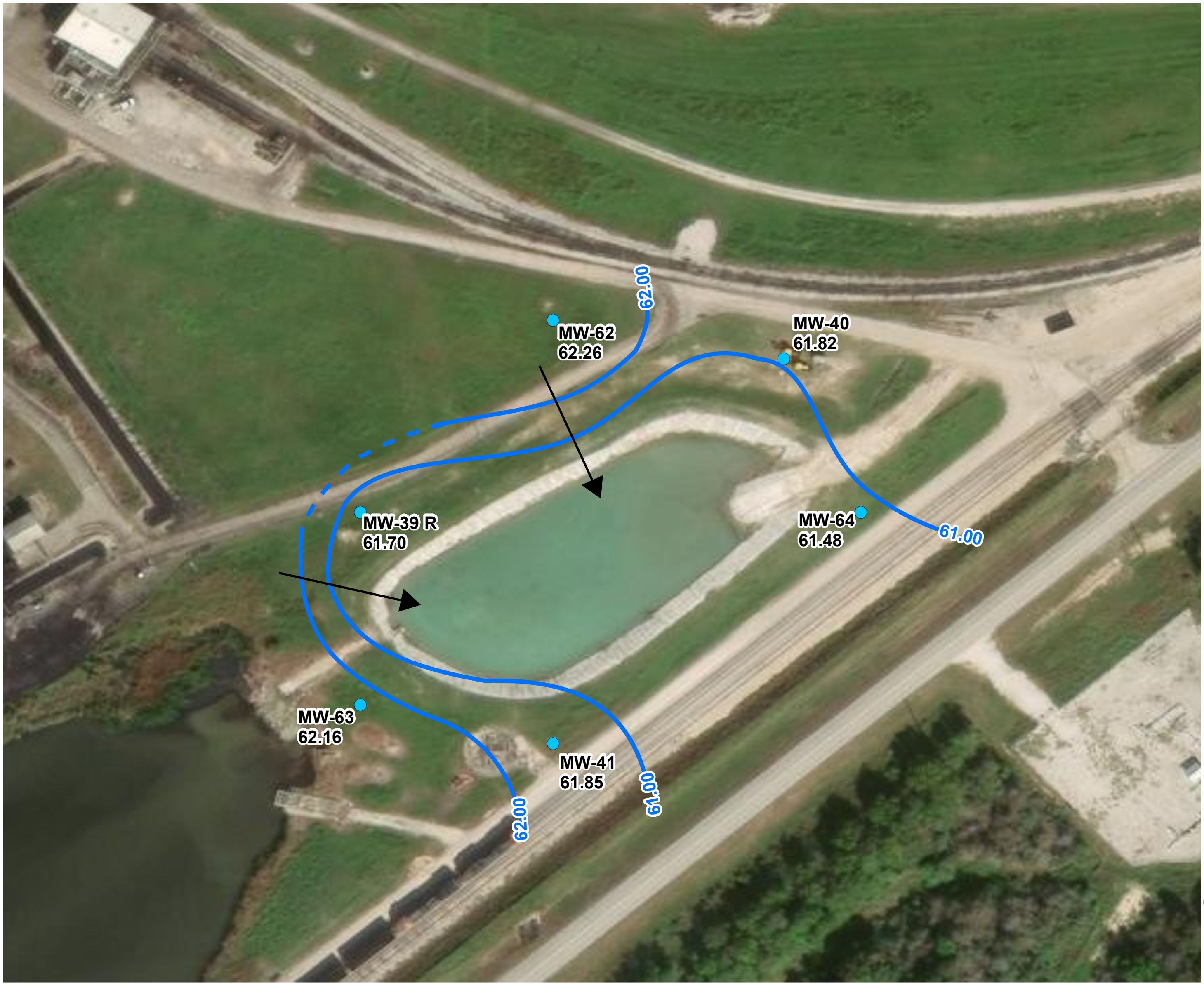
DRAWN BY: O. Fonseka	REQUEST BY: J. Atwell	PROJECT NO. 649506
DWG. DATE: January 2025	PROJECT-MGR: T. Dworaczyk	

TRC
11767 KATY FREEWAY, SUITE 850
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE
1-1

LAST EDIT: 01/22/2025 - FILE LOCATION: HOU C:\OF-TRC\DRAFTING-CDrive\ECR-Files\NRG\W.A. Parish Station - Thompsons-TX\2025\ Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg

DRAWING By: Oskar Fonseka - FILE NAME: Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg



Legend

- Monitor Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- ***61.82*** Groundwater Elevation (FT MSL)

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON SEPTEMBER 2024.

N

0 150 300 FT

1 " = 150 '
1:1,800

TRC

14701 St. Mary's Lane, Suite 500
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT:

NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

AIR PREHEATER POND
GROUNDWATER POTENTIOMETRIC SURFACE MAP AUGUST 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	JULY 2024
PROJ. NO.:	585638.0000.0001
FILE:	585638.0000_2-8

FIGURE 2

Appendices

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Houston, TX 77099
T: +1 281 530 5656
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November 20, 2024

Lori Burris
TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079

Work Order: **HS24091436**

Laboratory Results for: **WA Parish CCR Program Resample**

Dear Lori Burris,

ALS Environmental received 7 sample(s) on Sep 26, 2024 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL

Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:
a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _______________ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Andy C. Neir

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	A[2]	**Description**	**Yes**	**No**	**NA[3]**	**NR[4]**	**ER#[5]**
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				2
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			3
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			4
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 10/11/2024
Project Name: WA Parish CCR Program Resample	Laboratory Job Number: HS24091436
Reviewer Name: Andy Neir	Prep Batch Number(s): 218701, R478809, R479346

ER#[5]	Description
1	Batch 218701, Metals by method SW6020, Sample HS24100144-07, MS and MSD were performed on an unrelated sample. Batch R479346, Anions by method E300.0, Sample MW-63, MS/MSD recovered outside control limits for sulfate however, the result in the parent sample is 4x greater than the spike amount
2	Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701 Revised final on 10/24/2024 to report calcium for sample MW-23R.
2	See Run Log and CCB Exception Reports
3	Batch 218701, Metals by method SW6020, Sample HS24100144-07, PDS was performed on an unrelated sample.

Items identified by the letter “R” must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter “S” should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked).

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Oct-2024 10:34	018_ICV.d	B CA
LLICV2	1	09-Oct-2024 10:43	020LCV2.d	B
LLICV5	1	09-Oct-2024 10:45	021LCV5.d	B
ICB	1	09-Oct-2024 10:50	023_ICB.d	B CA
ICSA	1	09-Oct-2024 10:53	024ICSA.d	B
ICSAB	1	09-Oct-2024 10:55	025ICSB.d	B
CCV 1	1	09-Oct-2024 11:04	028_CCV.d	B CA
CCB 1	1	09-Oct-2024 11:06	029_CCB.d	B CA
CCV 2	1	09-Oct-2024 11:33	040_CCV.d	B CA
CCB 2	1	09-Oct-2024 11:35	041_CCB.d	B CA
CCV 3	1	09-Oct-2024 12:02	052_CCV.d	B CA
CCB 3	1	09-Oct-2024 12:05	053_CCB.d	B CA
CCV 4	1	09-Oct-2024 12:31	064_CCV.d	B CA
CCB 4	1	09-Oct-2024 12:34	065_CCB.d	B CA
CCV 5	1	09-Oct-2024 13:00	076_CCV.d	B CA
CCB 5	1	09-Oct-2024 13:03	077_CCB.d	B CA
CCV 6	1	09-Oct-2024 13:30	088_CCV.d	B CA
CCB 6	1	09-Oct-2024 13:42	091_CCB.d	B CA
CCV 7	1	09-Oct-2024 14:08	102_CCV.d	B CA
CCB 7	1	09-Oct-2024 14:10	103_CCB.d	B CA
CCV 8	1	09-Oct-2024 14:37	114_CCV.d	B CA
CCB 8	1	09-Oct-2024 14:39	115_CCB.d	B CA
CCV 9	1	09-Oct-2024 15:05	126_CCV.d	B CA
CCB 9	1	09-Oct-2024 15:08	127_CCB.d	B CA
CCV 10	1	09-Oct-2024 15:40	138_CCV.d	B CA
CCB 10	1	09-Oct-2024 15:42	139_CCB.d	B CA
CCV 11	1	09-Oct-2024 16:09	150_CCV.d	B CA
CCB 11	1	09-Oct-2024 16:11	151_CCB.d	B CA
CCV 12	1	09-Oct-2024 16:38	162_CCV.d	B CA
CCB 12	1	09-Oct-2024 16:40	163_CCB.d	B CA
CCV 13	1	09-Oct-2024 20:06	177_CCV.d	B CA
CCB 13	1	09-Oct-2024 20:08	178_CCB.d	B CA
CCV 14	1	09-Oct-2024 20:35	189_CCV.d	B CA
CCB 14	1	09-Oct-2024 20:37	190_CCB.d	B CA
CCV 15	1	09-Oct-2024 20:59	199_CCV.d	B CA
CCB 15	1	09-Oct-2024 21:01	200_CCB.d	B CA
MBLK-218701	1	09-Oct-2024 21:04	201SMPL.d	B CA
LCS-218701	1	09-Oct-2024 21:06	202SMPL.d	B CA
CCV 16	1	09-Oct-2024 21:09	203_CCV.d	B CA
CCB 16	1	09-Oct-2024 21:12	204_CCB.d	B CA
ZZZZZZSD	5	09-Oct-2024 21:17	206SMPL.d	CA
ZZZZZZMS	1	09-Oct-2024 21:19	207SMPL.d	B CA
ZZZZZZMSD	1	09-Oct-2024 21:22	208SMPL.d	B CA
ZZZZZZPDS	1	09-Oct-2024 21:24	209SMPL.d	B CA
CCV 17	1	09-Oct-2024 21:29	211_CCV.d	B CA
CCB 17	1	09-Oct-2024 21:31	212_CCB.d	B CA
MW-63	1	09-Oct-2024 21:34	213SMPL.d	B
MW-37	1	09-Oct-2024 21:41	216SMPL.d	B
MW-38R	1	09-Oct-2024 21:43	217SMPL.d	B
CCV 18	1	09-Oct-2024 21:55	222_CCV.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCB 18	1	09-Oct-2024 21:58	223_CCB.d	B CA
CCV 19	1	09-Oct-2024 22:15	230_CCV.d	B CA
CCB 19	1	09-Oct-2024 22:17	231_CCB.d	B CA
CCV 20	1	09-Oct-2024 22:36	239_CCV.d	B CA
CCB 20	1	09-Oct-2024 22:39	240_CCB.d	B CA
CCV 21	1	09-Oct-2024 23:10	249_CCV.d	B CA
CCB 21	1	09-Oct-2024 23:13	250_CCB.d	B CA
CCV 22	1	09-Oct-2024 23:32	258_CCV.d	B CA
CCB 22	1	09-Oct-2024 23:35	259_CCB.d	B CA
ICSA	1	09-Oct-2024 23:37	260ICSA.d	B
ICSAB	1	09-Oct-2024 23:40	261ICSB.d	B
CCV 23	1	09-Oct-2024 23:45	263_CCV.d	B CA
CCB 23	1	09-Oct-2024 23:47	264_CCB.d	B CA
CCV 24	1	10-Oct-2024 00:09	273_CCV.d	B CA
CCB 24	1	10-Oct-2024 00:12	274_CCB.d	B CA
CCV 25	1	10-Oct-2024 00:24	279_CCV.d	B CA
CCB 25	1	10-Oct-2024 00:26	280_CCB.d	B CA
CCV 26	1	10-Oct-2024 00:48	289_CCV.d	B CA
CCB 26	1	10-Oct-2024 00:50	290_CCB.d	B CA
CCV 27	1	10-Oct-2024 01:12	299_CCV.d	B CA
CCB 27	1	10-Oct-2024 01:15	300_CCB.d	B CA
CCV 28	1	10-Oct-2024 01:39	310_CCV.d	B CA
CCB 28	1	10-Oct-2024 01:42	311_CCB.d	B CA
LLCCV2	1	10-Oct-2024 01:47	313LCV2.d	B
LLCCV5	1	10-Oct-2024 01:49	314LCV5.d	B
ICSA	1	10-Oct-2024 01:51	315ICSA.d	B
ICSAB	1	10-Oct-2024 01:54	316ICSB.d	B

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

CCB 3	Date: 09-Oct-2024 12:05	Seq: 8300328	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	11.15	11	20

CCB 4	Date: 09-Oct-2024 12:34	Seq: 8300461	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	14.24	11	20

CCB 7	Date: 09-Oct-2024 14:10	Seq: 8300842	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17.62	11	20

CCB 12	Date: 09-Oct-2024 16:40	Seq: 8301900	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	14.65	11	20

CCB 13	Date: 09-Oct-2024 20:08	Seq: 8301918	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	85.71	34	500

CCB 14	Date: 09-Oct-2024 20:37	Seq: 8301930	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	14.96	11	20

CCB 15	Date: 09-Oct-2024 21:01	Seq: 8301940	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17.6	11	20

CCB 16	Date: 09-Oct-2024 21:12	Seq: 8302069	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17	11	20

CCB 17	Date: 09-Oct-2024 21:31	Seq: 8302077	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	29.94	11	20

CCB 18	Date: 09-Oct-2024 21:58	Seq: 8302088	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17.38	11	20

CCB 21	Date: 09-Oct-2024 23:13	Seq: 8302110	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	11.93	11	20

CCB 22	Date: 09-Oct-2024 23:35	Seq: 8302119	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	23.51	11	20

CCB 23	Date: 09-Oct-2024 23:47	Seq: 8302124	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	18.85	11	20

CCB 24	Date: 10-Oct-2024 00:12	Seq: 8302094	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Analyte	Result	MDL	Report Limit
Boron	14.91	11	20

CCB 25 Date: 10-Oct-2024 00:26 Seq: 8302100 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.64	11	20

CCB 26 Date: 10-Oct-2024 00:50 Seq: 8302213 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	25.85	11	20

CCB 27 Date: 10-Oct-2024 01:15 Seq: 8302187 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	31.93	11	20

CCB 28 Date: 10-Oct-2024 01:42 Seq: 8302198 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	60.9	11	20

Client: TRC
Project: WA Parish CCR Program Resample
Work Order: HS24091436

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24091436-01	MW-63	Water		26-Sep-2024 10:35	26-Sep-2024 12:03	☐
HS24091436-02	MW-64	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐
HS24091436-03	MW-37	Water		26-Sep-2024 08:35	26-Sep-2024 12:03	☐
HS24091436-04	MW-38R	Water		26-Sep-2024 09:15	26-Sep-2024 12:03	☐
HS24091436-05	MW-61	Water		26-Sep-2024 09:50	26-Sep-2024 12:03	☐
HS24091436-06	MW-23R	Water		26-Sep-2024 11:00	26-Sep-2024 12:03	☐
HS24091436-07	MW-65	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐

Client: TRC

Project: WA Parish CCR Program Resample

Work Order: HS24091436

CASE NARRATIVE

Work Order Comments

- Revised final on 10/24/2024 to report calcium for sample MW-23R.

- Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program Resample	WorkOrder:HS24091436
Sample ID:	MW-63	Lab ID:HS24091436-01
Collection Date:	26-Sep-2024 10:35	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.262**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:34
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**609**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:12

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-64		Lab ID:HS24091436-02
Collection Date:	26-Sep-2024 08:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**259**		**3.40**	**50.0**	**mg/L**	100	10-Oct-2024 12:15

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample	WorkOrder:	HS24091436
Sample ID:	MW-37	Lab ID:	HS24091436-03
Collection Date:	26-Sep-2024 08:35	Matrix:	Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.482**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:41
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,400**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 14:29
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	**1,710**		**5.00**	**10.0**	**mg/L**	1	02-Oct-2024 08:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-38R		Lab ID:HS24091436-04
Collection Date:	26-Sep-2024 09:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.390**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:43
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**776**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:35

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-61		Lab ID:HS24091436-05
Collection Date:	26-Sep-2024 09:50		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**1.13**		**0.220**	**0.400**	**mg/L**	20	10-Oct-2024 12:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,360**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 14:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	**1,940**		**5.00**	**10.0**	**mg/L**	1	02-Oct-2024 08:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Privileged and Confidential

Client:	TRC	ANALYTICAL REPORT
Project:	WA Parish CCR Program Resample	WorkOrder:HS24091436
Sample ID:	MW-23R	Lab ID:HS24091436-06
Collection Date:	26-Sep-2024 11:00	Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**503**		**3.40**	**50.0**	**mg/L**	100	21-Oct-2024 14:20
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1,060**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16
Sulfate	**1,640**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Privileged and Confidential

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-65		Lab ID:HS24091436-07
Collection Date:	26-Sep-2024 08:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**775**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 15:22

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Weight / Prep Log

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Batch ID: 218701 **Start Date:** 08 Oct 2024 12:30 **End Date:** 08 Oct 2024 12:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 219320 **Start Date:** 21 Oct 2024 08:00 **End Date:** 21 Oct 2024 08:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 218701 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35		08 Oct 2024 12:30	09 Oct 2024 21:34	1
HS24091436-02	MW-64	26 Sep 2024 08:00		08 Oct 2024 12:30	10 Oct 2024 12:15	100
HS24091436-03	MW-37	26 Sep 2024 08:35		08 Oct 2024 12:30	09 Oct 2024 21:41	1
HS24091436-04	MW-38R	26 Sep 2024 09:15		08 Oct 2024 12:30	09 Oct 2024 21:43	1
HS24091436-05	MW-61	26 Sep 2024 09:50		08 Oct 2024 12:30	10 Oct 2024 12:13	20
HS24091436-06	MW-23R	26 Sep 2024 11:00		08 Oct 2024 12:30	21 Oct 2024 14:20	100
Batch ID: R478809 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24091436-03	MW-37	26 Sep 2024 08:35			02 Oct 2024 08:00	1
HS24091436-05	MW-61	26 Sep 2024 09:50			02 Oct 2024 08:00	1
Batch ID: R479346 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35			07 Oct 2024 14:12	10
HS24091436-03	MW-37	26 Sep 2024 08:35			07 Oct 2024 14:29	20
HS24091436-04	MW-38R	26 Sep 2024 09:15			07 Oct 2024 14:35	10
HS24091436-05	MW-61	26 Sep 2024 09:50			07 Oct 2024 14:41	20
HS24091436-06	MW-23R	26 Sep 2024 11:00			07 Oct 2024 15:16	20
HS24091436-07	MW-65	26 Sep 2024 08:00			07 Oct 2024 15:22	10

WorkOrder: HS24091436
InstrumentID: ICPMS07
Test Code: ICP_TW
Test Number: SW6020A
Test Name: ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0125	0.0140	0.0110	0.0200
A	Calcium	7440-70-2	1.00	0.990	0.0340	0.500

WorkOrder: HS24091436
InstrumentID: ICS-Integrion
Test Code: 300_W
Test Number: E300
Test Name: Anions by E300.0, Rev 2.1, 1993

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Chloride	16887-00-6	0.500	0.511	0.200	0.500
A	Sulfate	14808-79-8	0.500	0.621	0.200	0.500

WorkOrder:	HS24091436
InstrumentID:	Balance1
Test Code:	TDS_W 2540C
Test Number:	M2540C
Test Name:	Total Dissolved Solids by SM2540C

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Total Dissolved Solids (Residue, Filterable)	TDS	10.0	2.00	5.00	10.0

Revision: 2

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:04**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302066** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.0163	0.0200								J
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:06**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302067** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4685	0.0200	0.5	0	93.7	80 - 120				
Calcium	4.501	0.500	5	0	90.0	80 - 120				

MS Sample ID: **HS24100144-07MS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:19**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302072** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5665	0.0200	0.5	0.115	90.3	80 - 120				
Calcium	162.6	0.500	5	163	-8.05	80 - 120				SO

MSD Sample ID: **HS24100144-07MSD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:22**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302073** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5982	0.0200	0.5	0.115	96.6	80 - 120	0.5665	5.44	20	
Calcium	170.1	0.500	5	163	143	80 - 120	162.6	4.53	20	SO

PDS Sample ID: **HS24100144-07PDS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:24**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302074** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6489	0.0200	0.5	0.115	107	75 - 125				
Calcium	162.5	0.500	10	163	-5.02	75 - 125				SO

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24100144-07SD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:17**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302071** PrepDate: **08-Oct-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	177.9	2.50					163	9.13	10	

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-02	HS24091436-03	HS24091436-04
HS24091436-05	HS24091436-06		

Client:	TRC
Project:	WA Parish CCR Program Resample
WorkOrder:	HS24091436

QC BATCH REPORT

Batch ID: R478809 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286792** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286791** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	922	10.0	1000	0	92.2	85 - 115				

DUP Sample ID: **HS24091533-01 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286789** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	266	10.0					274	2.96	20	

DUP Sample ID: **HS24091489-02 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286786** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	444	10.0					472	6.11	20	

The following samples were analyzed in this batch: HS24091436-03 HS24091436-05

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: R479346 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **07-Oct-2024 13:43**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298530** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **07-Oct-2024 13:54**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298531** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.29	0.500	20	0	101	90 - 110				
Sulfate	21.82	0.500	20	0	109	90 - 110				

MS Sample ID: **HS24091436-01MS** Units: **mg/L** Analysis Date: **07-Oct-2024 14:18**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298535** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	332.8	5.00	100	227.9	105	80 - 120				
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120				SO

MSD Sample ID: **HS24091436-01MSD** Units: **mg/L** Analysis Date: **07-Oct-2024 14:24**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298536** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	335.5	5.00	100	227.9	108	80 - 120	332.8	0.829	20	
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120	688.1	0.00814	20	SO

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-03	HS24091436-04	HS24091436-05
HS24091436-06	HS24091436-07		

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: **HS24091436**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

Sample Receipt Checklist

Work Order ID:	HS24091436	**Date/Time Received:**	**26-Sep-2024 12:03**
Client Name:	TRC-HOU	**Received by:**	**Jacob Coronado**

Completed By:	*/S/ Kaycee Rogers*	26-Sep-2024 20:52	**Reviewed by:** */S/ Alexis Dorenbosch*	27-Sep-2024 11:38
	eSignature	Date/Time	eSignature	Date/Time

Matrices: **W** Carrier name: **Client**

	Yes	No	
Shipping container/cooler in good condition?	☑	☐	Not Present ☐
Custody seals intact on shipping container/cooler?	☐	☐	Not Present ☑
Custody seals intact on sample bottles?	☐	☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☐	Not Present ☑
Chain of custody present?	☑	☐	1 Page(s)
Chain of custody signed when relinquished and received?	☑	☐	
Samplers name present on COC?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	1.3UC/1.3C	IR 34
Cooler(s)/Kit(s):	BLUE	
Date/Time sample(s) sent to storage:	09/26/2024 2052	

	Yes	No	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☑	☐	N/A ☐
pH adjusted?	☐	☑	N/A ☐

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

☑ ALS Laboratory Group
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

HS24091436
TRC
WA Parish CCR Program Resample

ALS Project Manager:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	211381	Project Name	WA Parish CCR Program Resample	A	ICP_TW (Boron) - Appendix III
Work Order		Project Number	528472.0000.0000	B	ICP_TW (Calcium) - Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	300_W (Chloride) - Appendix III
Send Report To	Lori Burris	Invoice Attn.	A/P	D	300_W (SO4) - Appendix III
Address	14701 St Mary's Lane Suite 500	Address	14701 St Mary's Lane Suite 500	E	TDS_W 2540C (TDS) - Appendix III
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston, TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	Lburris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-63	9-26-24	1035	Water	2,8	2	X			X							
2	MW-64		800	Water	2	1		X									
3	MW-37		835	Water	2,8	3	X			X	X						
4	MW-38R		915	Water	2,8	2	X			X							
5	MW-61		950	Water	2,8	3	X			X	X						
6	MW-23R		1100	Water	2,8	2		X	X	X							
7	MW-65		800	Water	8	1				X							
8																	
9																	
10																	

Sampler(s): Please Print & Sign Mason Bond + HME Team	Shipment Method: Drop off @ lab	Required Turnaround Time: ☐ Other ____ ☐ STD 10 Wk Days ☑ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour	Results Due Date:

Relinquished by: Ilyas Sediqui	Date: 9-26-24	Time: 1203	Received by:	Notes: NRG CCR - Priviledged and Confidential
Relinquished by:	Date: 9-26-24	Time: 1203	Received by (Laboratory):	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): Blue	1.3

QC Package: (Check Box Below)

X	Level II: Standard QC		TRRP-Checklist
	Level III: Std QC + Raw Data		TRRP Level IV
	Level IV: SW846 CLP-Like		
	Other: ____		

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

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ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 9-26-24 Time:
Name:
Company:

Seal Broken By:
Date:

9-26-24

Privileged and Confidential

Texas Commission on Environmental Quality
Waste Permits Division Correspondence Cover Sheet

Date: January 31, 2025
Facility Name: NRG-WA Parish Generating Station
Permit or Registration No.: CCR108

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision to TCEQ Tracking No.: ______ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☒ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

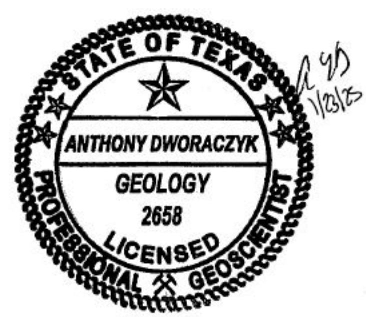
Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

I hereby certify that the alternative source demonstration presented within this document for the NRG WA Parish Coal Ash Disposal Landfill CCR Unit has been prepared to meet the requirements of 30 TAC 352.4; 352.941(c); and 352.1321. This document is accurate and has been prepared in accordance with good geosciences practices, including the consideration of applicable industry standards, and with the requirements of 30 TAC 352.4; 352.941(c); and 352.1321.

Name: Tony Dworaczyk **Expiration Date:** 1/30/2025

Company: TRC Environmental Corporation **Date:** 1/23/2025



Alternative Source Demonstration

W.A. Parish Electric Generating Station
FGD Emergency Pond (SWMU 020)

January 2025

Prepared For
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Thompsons, Texas
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Executive Summary

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas. Units managing coal combustion residuals (CCR) at the Station are subject to the requirements of 30 Texas Administrative Code (TAC) Chapter 352. CCR generated at the Station consists of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge. The Site has three active CCR management units that are subject to regulation under 30 TAC Chapter 32, including the FGD Emergency Pond (E Pond), which is the subject of this Alternate Source Demonstration (ASD).

The 15th semi-annual groundwater detection monitoring event was conducted on August 28, 2024. Verification sampling was performed on September 26, 2024. Statistical evaluation of the results was performed within 60 days of sample collection to identify apparent statistically significant increases (SSIs) above background pursuant to 30 TAC 352 Subpart H. Boron, sulfate, and total dissolved solids (TDS) were initially identified as apparent SSIs for the August 28, 2024 sampling event at three monitoring wells (MW-37, MW-38R, and MW-61). NRG notified the Texas Commission Environmental Quality (TCEQ) of its intent to prepare an ASD.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the second half 2019 (July) through the first half 2021 (April). The August 28, 2024, semi-annual detection monitoring event analytical results, including the September 26, 2024, verification sampling results are the sixth data set statistically evaluated using the new background water quality data set.

This ASD has identified alternative sources for apparent SSIs at the E Pond, based on the following lines of reasoning:

- The bottom of the E Pond clay liner is separated from the upper aquifer system by a confining unit that hydraulically isolates the bottom of the E Pond from the upper aquifer system. Improperly installed or damaged monitoring wells may have historically provided a conduit for CCR constituents to migrate into the upper aquifer system.
- The former, historical presence of CCR materials in the vicinity of the monitoring wells prior to their modification to include risers from the ground surface provided an opportunity for surface materials to inadvertently enter the wells directly from the ground surface.
- Water quality improved incrementally with each improvement to the CCR groundwater monitoring network over time. In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the former location of MW-38. Analytical data for August 2019 for MW-38R indicates significantly improved overall groundwater quality data.

- It appears that the construction activities that occurred during the retrofit of the E Pond per the federal CCR Rule and the Closure Plan during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
  - As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
  - Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
  - Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
  - As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.
- As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.
- Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition; and
- Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the E Pond have been shown to be responsible for each of the seven apparent SSIs observed. Based on this successful ASD, NRG will continue performing semi-annual detection monitoring for the E Pond per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas, adjacent to Smithers Lake. The electricity generating portion of the Station, or the main Plant Operations Area (Plant Area), is located along the southeastern shore of the lake.

Management of coal combustion residuals (CCR) at the Station is performed pursuant to 30 Texas Administrative Code (TAC) Chapter 352, which became effective during June 2021. Prior to this, management of CCR was performed pursuant to the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Part 257 (40 CFR §257) (CCR Rule, effective date October 19, 2015).

CCR generated at the Station consist of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge, which have been classified by the TCEQ as Class II nonhazardous waste. The Station has the following three active CCR-management units:

- Solid Waste Disposal Area (SWDA) (SWMU 001), which consists of four active CCR-management cells: Cell 1C, Cell 2A-Pug Mill, Cell 2B, and Cell 3; and is now monitored as a single CCR Multiunit;
- Air Preheater Pond (APH Pond, SWMU 021); and
- FGD Emergency Pond (E Pond, SWMU 020).

The E Pond receives storm water runoff from the FGD dewatering area and blowdown from the FGD system. The E Pond may also receive the contents of an FGD process vessel when the FGD system is not in operation.

1.1.1 Retrofit Construction Activities

During 2020 and 2021, the E Pond was removed from service and retrofitted per §257.102(k) of the federal CCR Rule. As part of these activities, the CCR within the impoundment was dewatered, all water and CCR was removed from the impoundment, and the E Pond area was decontaminated based on over-excavating a minimum of 6-inches of clay liner material after removal of CCR. After CCR removal and decontamination had been confirmed, a federal CCR Rule bottom composite liner system was then installed, and the E Pond was placed back into service as a CCR unit compliant with both the federal and TCEQ CCR programs.

During retrofit construction activities, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
- Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

1.1.2 Groundwater Monitoring Program

On behalf of NRG, Environmental Resources Management, Inc. (ERM) conducted eight independent background groundwater detection monitoring events for both the Appendix III and IV CCR constituents between April 2015 and August 2017 per §257.94(b) of the federal CCR Rule and the first semi-annual detection monitoring event in October 2017. Results of the eight background and first semi-annual detection monitoring events for the E Pond were documented in the *Annual Groundwater Monitoring Report, FGD Emergency Pond (Unit 020)* (ERM 2018a) and the March 1, 2018, *Groundwater Monitoring Report, FGD Emergency Pond (SWMU Unit 020)* (ERM 2018b) pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the E Pond per the federal CCR Rule and 30 TAC Chapter 352. As of the August 28, 2024, sampling event and verification sampling on September 26, 2024, a total of 15 semi-annual detection monitoring events have now been performed. Following each semi-annual detection monitoring sampling event, the results have been evaluated for potential SSIs, and ASDs have been prepared as needed. Since implementation of 30 TAC Chapter 352, the ASDs have been submitted to TCEQ for review and approval. The semi-annual detection monitoring activities and ASDs have been included in the Annual Groundwater Monitoring and Corrective Action reports, which have been placed into the Facility Operating Record (FOR) and posted to NRG's publicly accessible website.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the third half 2019 (July) through the first half 2021 (April). The August 28, 2024, semi-annual detection monitoring event and September 26, 2024, verification sampling analytical results are the sixth data set statistically evaluated using the new background water quality data set.

Since initial installation of the CCR groundwater monitoring network for the E Pond, improvements to the network have been implemented to improve the operation of the network. These improvements are identified below:

- During the second semi-annual detection monitoring event, surface CCR may have been inadvertently introduced into the monitoring wells and the laboratory analytical sample containers during the initial background and semi-annual detection monitoring events. To mitigate this potential issue, the flush-mounted monitoring wells at the E Pond were modified before the third semi-annual detection monitoring event was performed with the installation of vertical well casing extensions and protective casings;
- During the third semi-annual detection monitoring event, silt was observed in the monitoring wells at the E Pond. The wells were redeveloped, and accumulated silt was removed from the well casings prior to performance of the fourth semi-annual detection monitoring event; and
- In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the location of former MW-38.

1.2 Purpose

TRC prepared this ASD on behalf of NRG to evaluate apparent SSIs above background levels for the 15th semi-annual detection monitoring event in accordance with 30 TAC Chapter 352.

Section 2
Site Geology and Hydrogeology

This section provides information about the geology and hydrogeology of the Station and the area at and surrounding the E Pond.

2.1 Hydrogeology

Based on the *Geologic Atlas of Texas, Houston Sheet* (BEG 1982), the Station is underlain by alluvium and the Beaumont formation (also commonly referred to as the Beaumont Clay). The alluvium is present along the Brazos River, which is located approximately 0.9 miles from the northern boundary of the SWDA CCR units. Both the alluvium and the Beaumont formation are composed of clay, silt, and sand; and may include stream channel, point-bar, natural levee, back swamp, coastal marsh, and mud-flat deposits. The thickness of the Beaumont formation is approximately 100 feet. The alluvium is not present at the Plant Area which is consistent with this area being located outside of the Brazos River floodplain zone (FBC 2018). The APH Pond and the E Pond are both located at the Plant Area.

The alluvium and the Beaumont Formation are located within the upper unit of the Chicot aquifer system. At most locations throughout Fort Bend County, the Chicot aquifer system is under confined conditions (TWDB 1990). The Chicot aquifer system is primarily recharged by precipitation at locations where it outcrops in Austin, Harris, and Waller Counties; groundwater then flows laterally within Fort Bend County (TWDB 1990). Site investigations performed by others on behalf of NRG also indicate that the uppermost groundwater-bearing units at the Site are under confined conditions (ERM 2017a).

Environmental site investigations conducted in May 2016 and November 2016 identified three main subsurface strata at the Station, which were designated as Stratum DA-1 through DA-3 at the SWDA and Stratum PA-1 through PA-3 at the Plant Area (APH Pond and E Pond). The strata are fully described in the October 2017 *CCR Groundwater Monitoring Networks* report (ERM 2017b) and are summarized below.

2.1.1 Stratum PA-1 (Upper Confining Unit)

Stratum PA-1 is predominately silty clay with some sandy clay, clay, and sandy silt. Stratum PA-1 is present from the ground surface to depths ranging from 15 feet bgs to 32 feet bgs.

Stratum PA-1 serves as a confining unit to underlying Stratum PA-2, which comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. Geotechnical laboratory testing indicates that the hydraulic conductivity of Stratum PA-1 is 2.03E-08 centimeters per second (cm/sec) (ERM 2017b).

2.1.2 Stratum PA-2 (Upper Aquifer)

Stratum PA-2 is predominantly silty sand with varying sand and silt content and trace clay. Stratum PA-2 is generally greater than 10 feet in thickness with bottom depths ranging from 60 to 80 feet bgs.

Stratum PA-2 is saturated and comprises the uppermost groundwater-bearing unit at the APH Pond and E Pond. CCR monitoring wells in the Plant Area are completed within Stratum PA-2. Slug testing results for CCR monitoring wells indicate hydraulic conductivity ranges from 6.68E-04 cm/sec to 4.26E-02 cm/sec in Stratum PA-2 (ERM 2017b). Groundwater primarily flows to the southwest beneath the E Pond, and to the southeast beneath the APH Pond.

2.1.3 Stratum PA-3 (Lower Confining Unit)

Stratum PA-3 is predominantly clay to silty clay. This stratum appears to be the bottom confining layer to the overlying groundwater-bearing units (Stratum PA-2). The thicknesses of Stratum PA-3 has not been defined.

2.1.4 E Pond – Certified Monitoring Network

The certified CCR groundwater monitoring well network for the E Pond consists of five groundwater monitoring wells:

- Upgradient monitoring wells MW-36 and MW-60; and
- Downgradient monitoring wells MW-37, MW-38R, and MW-61.

The wells were completed into Stratum PA-2. A groundwater potentiometric surface map was prepared by TRC for the March 1, 2024, semi-annual detection monitoring event and is provided in this ASD as Figure 2. Historically, groundwater flows to the southwest beneath the E Pond at a gradient ranging from 0.010 feet per foot (ft/ft) to 0.030 ft/ft.

2.2 Site Specific Information

Subsurface data from a soil boring recently installed as part of the current monitoring network at the nearby Emergency Pond (E-Pond) at the Station indicate that the subsurface geology beneath the W.A. Parish generating facility consists predominately of clays, silty clays with sandy clay, sandy silt, and sands and is consistent across the Station (ERM, Groundwater Monitoring networks, October 2017).

During the original installation of monitor wells for the W.A. Parish CCR monitoring networks, soil samples were not collected for Appendix III & IV CCR constituent analyses. In November 2024, monitor well MW-61R was installed at the E-Pond to replace MW-61 as part of the construction of a Zero Liquid Discharge (ZLD) wastewater treatment facility required under the Effluent Limitation Guidelines (ELG) for coal-fired power plants. During the installation of MW-61R, soil samples of native subsurface soils were collected on November 7, 2024, and analyzed for the Appendix III & IV CCR constituents. The soil samples were collected from the 3 to 4 feet and from the 26 to 27 feet intervals. The laboratory analytical results for boron and sulfate, which are the apparent SSIs for this 15th semi-annual detection monitoring event ASD, are summarized below:

Constituent	3-4' bgs	27-27'bgs
Boron	3.39 mg/kg	7.35 mg/Kg
Sulfate	57.3 mg/Kg	83.0 mg/Kg

Based on the consistency of the subsurface soils at the APH Pond and the E-Pond, and the close proximity of the APH Pond to the E-Pond, the subsurface soil laboratory analytical results for the E-Pond are considered to be representative for both CCR Units. The laboratory analytical report is included as Appendix A of this ASD. As shown in the above table, the concentrations of boron and sulfate in soils increased with depth.

Based on the results of the November 7, 2024, subsurface soils sampling event, Appendix III & IV CCR constituents naturally occur in the native soils at the Station. This indicates that Appendix III & IV CCR constituents occur naturally rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

2.3 Groundwater Geochemistry

Understanding the geochemistry of groundwater is essential to examining the groundwater monitoring data, explaining the relationships between the characteristics of the groundwater, and analyzing both natural and potential anthropogenic impacts on groundwater. Separate from potential source areas of contamination, geochemical processes are critical in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions, and adsorption-desorption processes. Based on the hydrogeology of the E Pond, potential SSIs in groundwater including boron, sulfate, and total dissolved solids (TDS) are discussed in the subsections below.

2.3.1 Boron in Groundwater

Boron is normally considered to be a minor constituent in groundwater since it is generally present in low concentrations (Palmucci & Rusi, 2014). Apart from a potential boron source area, the primary origin of boron in groundwater is typically associated with the processes of sorption and desorption from mineral surfaces including soil and bedrock (Ravenscroft & McArthur, 2004). Boron is often cited as a contaminant trace chemical and usually occurs as a non-ionized form as H_3BO_3 in soils at pH <8.5, but above this pH, it exists as an anion, $B(OH)_4^-$ (Upadhyaya et al., 2014).

The factors that may influence the concentration of boron in groundwater include weathering, human activity, evaporative concentration, ion-exchange, electrical conductivity (EC), and pH. Ravenscroft & McArthur (2004) investigated the mechanism of regional boron enrichment in groundwater and the results indicated that the main process resulting in boron enrichment in groundwater was flushing by fresh groundwater. The desorption of boron from mineral surfaces could be affected by pH, ionic strength, salinity, and the HCO_3/CO_3 ratio. Decreases in pH will increase the dissolution of boron from the mineral surfaces. Boron adsorption favors high pH and boron desorption favors low pH in rocks, soils, and organic matters (Hollis et al., 1988; Keren & Communar, 2009; Tabelin et al., 2014).

Additional investigations confirmed that the presence of boron in groundwater depends on the EC (salinity), such that the concentration of boron increases with increasing EC. Halim et al. (2010) reported that the increae in Cl^- contributes to an increase in EC value since a strong linear correlation (R^2 = 0.88) between EC and Cl^- was observed. Palmucci & Rusi (2014) observed a clear correlation between elevated concentrations of boron and the chloride-sodium facies, which are characterized by high saline content, negative redox potential, and low value of the SO_4^{2-}/Cl^- ratio. Rodriguez-Espinosa et al. (2020) determined that the concentration of boron in groundwater was related to SO_4^{2-} and the age affect.

Regarding the concentration of boron in groundwater at the E Pond, the source of boron is natural rather than anthropogenic. Therefore, the increase in concentration of boron is related to natural variations in groundwater geochemistry, such as pH, ion exchanges, EC, and salinity.

2.3.2 Sulfate in Groundwater

The presence of sulfate is ubiquitous in groundwater, having both natural and anthropogenic sources. There are many potential sources of sulfate in groundwater including mineral dissolution, atmospheric deposition, and other anthropogenic sources (mining, fertilizer, synthetic detergents, industrial wastewater etc.) (Miao et al., 2012). As groundwater moves through soil and rock formations that contain sulfate minerals, a portion of the sulfate dissolves into the groundwater. Minerals that contain sulfate include magnesium sulfate (Epsom salt), sodium sulfate (Glauber's salt), and calcium sulfate (gypsum). Gypsum is an important contributor to elevated concentrations of sulphate in groundwater aquifers. Elevated concentrations of sulfate in groundwater are common in the western part of the United States (MDH, 2008).

Sulfate is mobile in soil and can impact groundwater quality. Multiple investigations have indicated that atmospheric deposition, dissolution of gypsum, and oxidation of sulfide minerals can contribute to the concentrations of sulfate in groundwater.

Regarding the concentration of sulfate in groundwater at the E-Pond, the source of sulfate is natural rather than anthropogenic. Therefore, the increase in concentration of sulfate are related to natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition (Einsiedl & Mayer, 2005; Pu et al., 2012).

2.3.3 TDS

Total dissolved solids (TDS) represent the combined total of inorganic and organic substances present in groundwater, and TDS can be a general indicator of water quality. These solids typically consist of minerals, salts, and organic matter, which may originate from sources such as weathering of minerals, storm water runoff, sewage, effluent discharges, agriculture, decaying organisms, and anthropogenic sources. Common salts that contribute to TDS are sodium, chloride, calcium, magnesium, potassium, sulfate, and bicarbonate. (Olumuyiwa I. Ojo, 2012)

TDS concentrations in groundwater is usually higher than surface water due to the longer contact time for groundwater with underlying soil and rocks. Since many minerals are water soluble, high concentrations can accumulate over time through the processes of precipitation and evaporation.

TDS is related to other water quality parameters such as hardness, which may occur if an elevated concentration of TDS is associated with the presence of carbonates. Research investigations have evaluated the relationship between TDS and other groundwater parameters such as EC and salinity (Atekwana et al., 2004; Banadkooki et al., 2020; Poursaeid et al., 2020).

Section 3
Alternative Source Demonstration

The 15th semi-annual detection monitoring event was conducted on August 28, 2024, per 30 TAC Chapter 352. Statistical evaluation of the results (comparison of downgradient monitoring results to 95 percent confidence/95 percent coverage upper tolerance limits [UTLs]) was performed within 60 days of sample collection to identify apparent SSIs above background pursuant to 30 TAC 352 Subpart H. Seven apparent SSIs were initially identified.

As part of the ASD activities, verification sampling was conducted on September 26, 2024, for the initial seven apparent SSIs. Statistical evaluation to identify SSIs for the sampling event was performed within 60 days of sample collection. Seven apparent SSIs were confirmed for boron, sulfate, and TDS for three down gradient monitoring wells. Based on the results of the sampling event and statistical analysis, NRG notified the TCEQ of its intent to prepare an ASD addressing the apparent SSIs for boron, sulfate, and TDS.

The UTLs and sampling results for the seven apparent SSIs are provided in Table 1 below.

Table 4-1
August 2024 Semi-Annual Detection Monitoring Event

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
DOWNGRADIENT MONITORING WELLS						
Boron	MW-37	N/A	0.12	9/26/2024	0.482	mg/L
Sulfate	MW-37	N/A	470	9/26/2024	1,400	mg/L
Boron	MW-38R	N/A	0.12	9/26/2024	0.390	mg/L
Sulfate	MW-38R	N/A	470	9/26/2024	776	mg/L
Boron	MW-61	N/A	0.12	9/26/2024	1.13	mg/L
Sulfate	MW-61	N/A	470	9/26/2024	1,360	mg/L
TDS	MW-61	N/A	1,800	9/26/2024	1,940	mg/L

mg/L= milligrams per liter N/A = Not Applicable
LTL – Lower Tolerance Limit UTL – Upper Tolerance Limit

As discussed previously in subsection 1.1.1 of this ASD, during retrofit construction activities at the APH Pond during 2020 and 2021 per the federal CCR Rule, it appears that the geochemistry and hydrogeology of the uppermost aquifer were altered as follows:

- As a result of removal of water from the APH Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;

- Excavation of all CCR and decontamination of the APH Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
- Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
- As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and ORP, are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.

As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

In addition, based on site-specific hydrogeology at the E Pond, the following lines of reasoning have been identified that support alternative source(s) for the apparent SSIs:

- The bottom of the E Pond is separated from the upper aquifer system by a confining unit (Stratum PA-1) that hydraulically isolates the bottom of the E Pond from the upper aquifer system (Stratum PA-2). Available data indicate the upper aquifer system is under confined conditions and the confining unit (Stratum PA-1) acts as a vertical hydraulic barrier between the bottom of the E Pond and the upper aquifer system (Stratum PA-2), based on the following lines of reasoning:
  - Based on review of the boring logs for the groundwater monitoring wells installed at the E Pond, the upper clay confining unit (Stratum PA-1) was present at each monitoring well from the ground surface to depths ranging from 19 feet bgs to 32 feet bgs [i.e., thickness ranging from 19 feet to 32 feet; corresponding to elevations of about 53 to 49 feet above mean sea level (amsl)]. The bottom of the E Pond is located within Stratum PA-1 with the bottom of the clay liner at an elevation of about 60 feet amsl); therefore, Stratum PA-1 acts as a confining layer between the bottom of the E Pond and the underlying upper aquifer system (Stratum PA-2); and
  - Based on geotechnical laboratory results for a soil sample collected from Stratum PA-1 at a depth of 10 feet bgs, Stratum PA-1 is a lean clay with a hydraulic conductivity of 2.03E-8 centimeters per second (ERM 2017b), which is consistent with an impervious lithologic unit that exceeds the required specifications per 40 CFR §257.71(a) for a compacted bottom clay liner for a CCR impoundment.
- The E Pond is located at an active power generating area at the Plant Area and non CCR-related and CCR-related materials are actively managed near the E Pond. For example, the FGD loadout pad immediately adjoins the E Pond. The presence of non CCR-related and CCR-related materials near the E pond monitoring wells may be a potential source for some or all of the apparent SSIs identified in groundwater samples collected from wells located downgradient of the E Pond, as described further below. The E Pond monitoring wells were originally installed as flush-mounted wells, which may have enabled surface materials to incidentally enter the groundwater monitoring wells during sampling activities.

- Prior to the third semiannual detection monitoring event, NRG modified the monitoring wells by installing casing extensions and protective casings to protect the wells from the accidental introduction of CCR materials directly into groundwater samples during sample collection. The wells were further redeveloped prior to the fourth sampling event. Although the wells have been improved and sampling collection methods modified, groundwater/groundwater samples may still be affected by the prior, historical inadvertent introduction of surface CCR into the monitoring wells and/or groundwater samples during sample collection. This may include residual impacts from CCR introduced into the wells prior to their improvement in 2018.

Finally, as discussed previously in subsection 2.2 of this ASD, on November 7, 2024 during installation of monitor well MW-61R at the E-Pond to replace MW-61 as part of the construction of a ZLD wastewater treatment facility, soil samples of native subsurface soils were collected and analyzed for the Appendix III & IV CCR constituents. The soil samples were collected from the 3 to 4 feet and from the 26 to 27 feet intervals. The laboratory analytical results for boron and sulfate, which are the apparent SSIs for this 15th semi-annual detection monitoring event ASD, are summarized below:

Constituent	3-4’ bgs	27-27’bgs
Boron	3.39 mg/kg	7.35 mg/Kg
Sulfate	57.3 mg/Kg	83.0 mg/Kg

Based on the consistency of the subsurface soils at the APH Pond and the E-Pond, and the close proximity of the APH Pond to the E-Pond, the subsurface soil laboratory analytical results for the E-Pond are considered to be representative for both CCR Units. As shown in the above table, the concentrations of boron and sulfate in soils increased with depth.

Based on the results of the November 7, 2024, subsurface soils sampling event, Appendix III & IV CCR constituents naturally occur in the native soils at the Station. This indicates that Appendix III & IV CCR constituents occur naturally rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

Section 4
Conclusions

Based on statistical evaluation of the August 28, 2024, semi-annual detection monitoring event and the September 26, 2024, verification sampling events analytical results, boron, sulfate, and TDS were identified as apparent SSIs for three downgradient monitoring wells for the 15th semi-annual detection monitoring event. This ASD has identified the following lines of reasoning that support alternative sources for these apparent SSIs.

- The bottom of the E Pond clay liner is separated from the upper aquifer system by a confining unit that hydraulically isolates the bottom of the E Pond from the upper aquifer system. Improperly installed or damaged monitoring wells may have historically provided a conduit for CCR constituents to migrate into the upper aquifer system.
- The former, historical presence of CCR materials in the vicinity of the monitoring wells prior to their modification to include risers from the ground surface provided an opportunity for surface materials to inadvertently enter the wells directly from the ground surface.
- Water quality improved incrementally with each improvement to the CCR groundwater monitoring network over time. In July 2019, MW-38 was severely damaged by mobile plant equipment. MW-38 was abandoned and MW-38R was installed adjacent to the former location of MW-38. Analytical date for August 2019 for MW-38R indicates significantly improved overall groundwater quality data.
- It appears that the construction activities that occurred during the retrofit of the E Pond per the federal CCR Rule and the Closure Plan during 2020 and 2021 altered the geochemistry and hydrogeology of the uppermost aquifer as follows:
    - As a result of removal of water from the E Pond during CCR dewatering and retrofit construction, hydraulic loading stopped being a driver for the potential migration of CCR constituents into the uppermost aquifer system;
    - Excavation of all CCR and decontamination of the E Pond area removed CCR as a potential source area for the migration of CCR constituents into the uppermost aquifer system;
    - Installation of the bottom composite liner system minimizes the potential for the migration of CCR constituents into the uppermost aquifer system by acting as a barrier to any such potential migration; and
    - As a result of the retrofit construction activities summarized above, changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP), are anticipated to have occurred which will also be related to changes in the measured concentrations of CCR constituents.
- As the geochemistry and hydrogeology of the aquifer continues to evolve towards a new equilibrium following completion of the retrofit construction activities, it is anticipated that aquifer geochemistry will continue to re-equilibrate, which should be reflected in a continued evolution in the concentrations of CCR indicator parameters.

- Natural variations in groundwater geochemistry associated with mineral dissolution and/or atmospheric deposition; and
- Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the E Pond have been shown to be responsible for each of the seven apparent SSIs observed. Based on this successful ASD, NRG will continue performing semi-annual detection monitoring for the E Pond per 30 TAC Chapter 352.

Section 5
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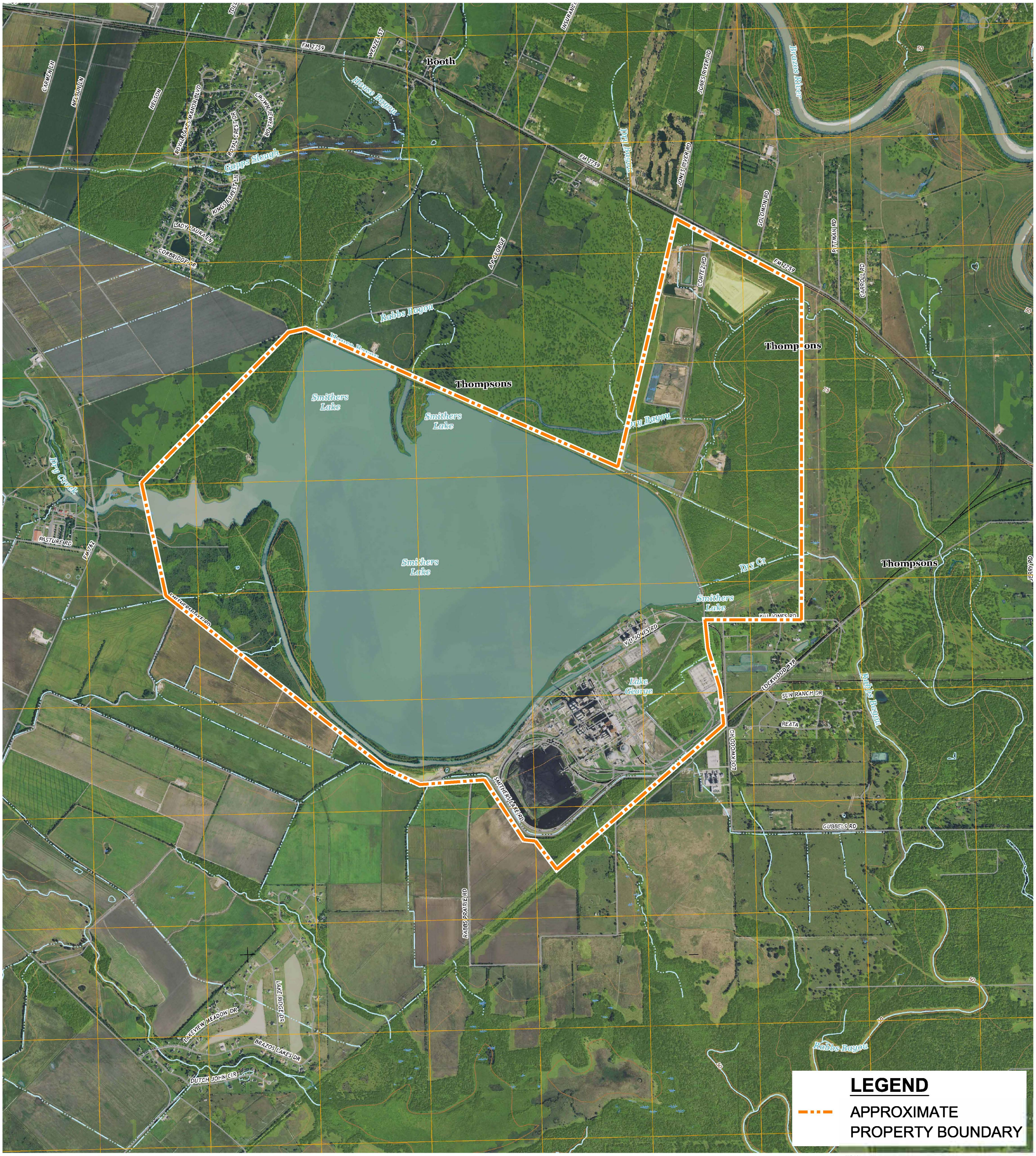
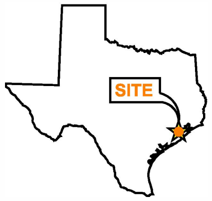
Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
MISSOURI CITY, TEXAS (2016) / SMITHERS LAKE, TEXAS (2016) / SUGAR LAND, TEXAS (2016) / THOMPSONS, TEXAS (2016)



TEXAS
QUADRANGLE LOCATION

N

0 2,000' 4,000' 8,000'

SCALE IN FEET
1" = 4,000'-0"

CLIENT / PROJECT

NRG TEXAS POWER, LLC
W.A. Parish Station
Thompsons, Texas

TITLE

SITE LOCATION MAP

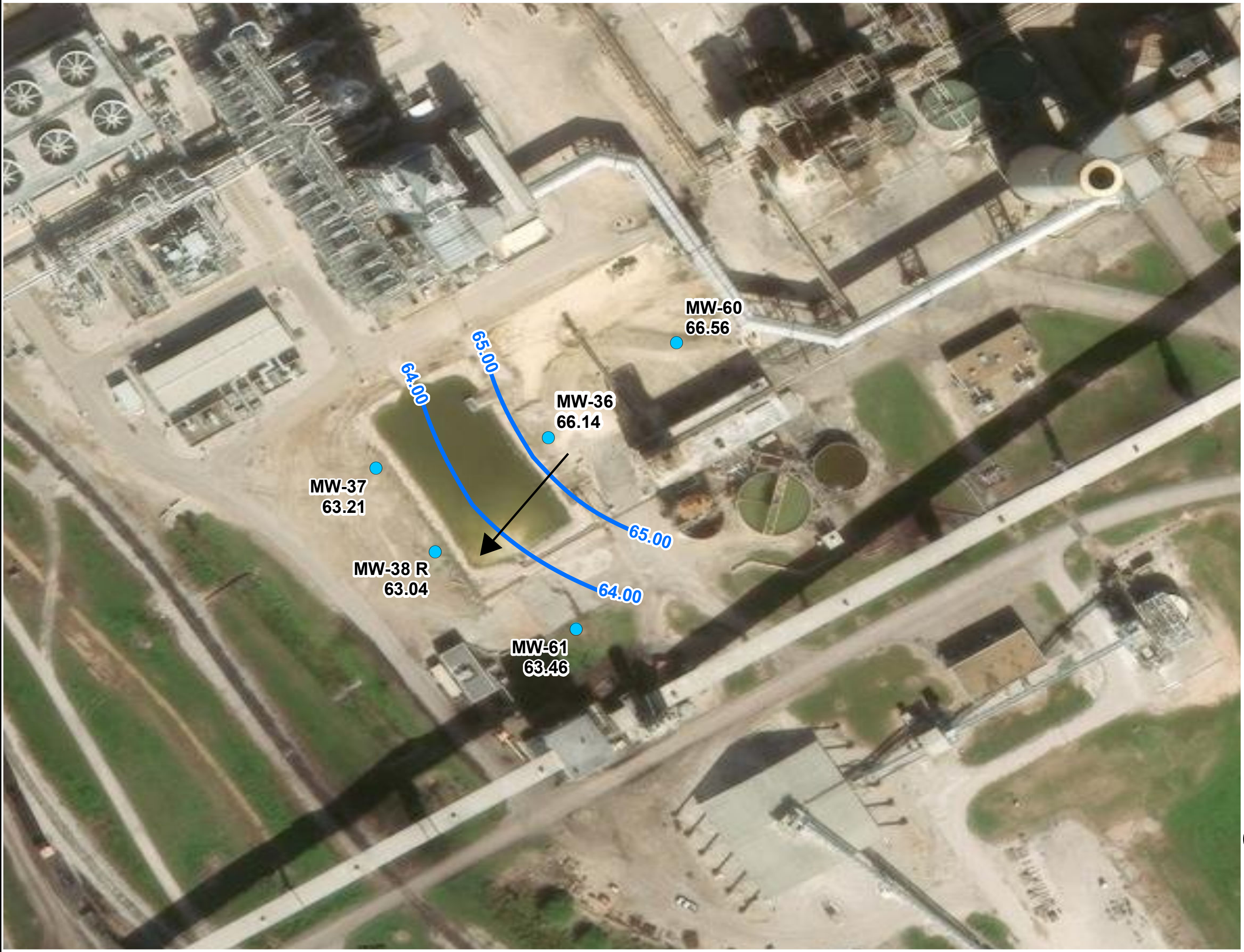
DRAWN BY: O. Fonseka	REQUEST BY: J. Atwell	PROJECT NO. 649506
DWG. DATE: January 2025	PROJECT-MGR: T. Dworaczyk	

TRC
11767 KATY FREEWAY, SUITE 850
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE
1

LAST EDIT: 01/22/2025 - FILE LOCATION: HOU C:\OF-TRC\DRAFTING-CDrive\ECR-Files\NRG\W.A. Parish Station - Thompsons-TX\2025\ Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg

DRAWING By: Oskar Fonseka - FILE NAME: Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg



Legend

- Monitor Well
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- *66.56* Groundwater Elevation (FT MSL)

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

NOTE:
GROUNDWATER ELEVATION MEASURED BY HMI ON AUGUST 2024

N

0 150 300 FT

1 " = 150 '
1:1,800

TRC
14701 St. Mary's Lane, Suite 500
Houston, TX 77079
713.244.1000
www.trcsolutions.com

PROJECT:

NRG TEXAS POWER, LLC
W.A. PARISH STATION
THOMPSONS, TEXAS

TITLE:

FGD EMERGENCY POND
GROUNDWATER POTENTIOMETRIC SURFACE MAP AUGUST 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	DECEMBER 2024
PROJ. NO:	585638.0000.0001
FILE:	585638.0000_2-9.mxd

FIGURE 2

Appendices

Attachment A

right solutions.
right partner.

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

November 20, 2024

Lori Burris
TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079

Work Order: **HS24091436**

Laboratory Results for: **WA Parish CCR Program Resample**

Dear Lori Burris,

ALS Environmental received 7 sample(s) on Sep 26, 2024 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL

Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:
a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _______________ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Andy C. Neir

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				2
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			3
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			4
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 10/11/2024
Project Name: WA Parish CCR Program Resample	Laboratory Job Number: HS24091436
Reviewer Name: Andy Neir	Prep Batch Number(s): 218701, R478809, R479346

ER#[5]	Description
1	Batch 218701, Metals by method SW6020, Sample HS24100144-07, MS and MSD were performed on an unrelated sample. Batch R479346, Anions by method E300.0, Sample MW-63, MS/MSD recovered outside control limits for sulfate however, the result in the parent sample is 4x greater than the spike amount
2	Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701 Revised final on 10/24/2024 to report calcium for sample MW-23R.
2	See Run Log and CCB Exception Reports
3	Batch 218701, Metals by method SW6020, Sample HS24100144-07, PDS was performed on an unrelated sample.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Oct-2024 10:34	018_ICV.d	B CA
LLICV2	1	09-Oct-2024 10:43	020LCV2.d	B
LLICV5	1	09-Oct-2024 10:45	021LCV5.d	B
ICB	1	09-Oct-2024 10:50	023_ICB.d	B CA
ICSA	1	09-Oct-2024 10:53	024ICSA.d	B
ICSAB	1	09-Oct-2024 10:55	025ICSB.d	B
CCV 1	1	09-Oct-2024 11:04	028_CCV.d	B CA
CCB 1	1	09-Oct-2024 11:06	029_CCB.d	B CA
CCV 2	1	09-Oct-2024 11:33	040_CCV.d	B CA
CCB 2	1	09-Oct-2024 11:35	041_CCB.d	B CA
CCV 3	1	09-Oct-2024 12:02	052_CCV.d	B CA
CCB 3	1	09-Oct-2024 12:05	053_CCB.d	B CA
CCV 4	1	09-Oct-2024 12:31	064_CCV.d	B CA
CCB 4	1	09-Oct-2024 12:34	065_CCB.d	B CA
CCV 5	1	09-Oct-2024 13:00	076_CCV.d	B CA
CCB 5	1	09-Oct-2024 13:03	077_CCB.d	B CA
CCV 6	1	09-Oct-2024 13:30	088_CCV.d	B CA
CCB 6	1	09-Oct-2024 13:42	091_CCB.d	B CA
CCV 7	1	09-Oct-2024 14:08	102_CCV.d	B CA
CCB 7	1	09-Oct-2024 14:10	103_CCB.d	B CA
CCV 8	1	09-Oct-2024 14:37	114_CCV.d	B CA
CCB 8	1	09-Oct-2024 14:39	115_CCB.d	B CA
CCV 9	1	09-Oct-2024 15:05	126_CCV.d	B CA
CCB 9	1	09-Oct-2024 15:08	127_CCB.d	B CA
CCV 10	1	09-Oct-2024 15:40	138_CCV.d	B CA
CCB 10	1	09-Oct-2024 15:42	139_CCB.d	B CA
CCV 11	1	09-Oct-2024 16:09	150_CCV.d	B CA
CCB 11	1	09-Oct-2024 16:11	151_CCB.d	B CA
CCV 12	1	09-Oct-2024 16:38	162_CCV.d	B CA
CCB 12	1	09-Oct-2024 16:40	163_CCB.d	B CA
CCV 13	1	09-Oct-2024 20:06	177_CCV.d	B CA
CCB 13	1	09-Oct-2024 20:08	178_CCB.d	B CA
CCV 14	1	09-Oct-2024 20:35	189_CCV.d	B CA
CCB 14	1	09-Oct-2024 20:37	190_CCB.d	B CA
CCV 15	1	09-Oct-2024 20:59	199_CCV.d	B CA
CCB 15	1	09-Oct-2024 21:01	200_CCB.d	B CA
MBLK-218701	1	09-Oct-2024 21:04	201SMPL.d	B CA
LCS-218701	1	09-Oct-2024 21:06	202SMPL.d	B CA
CCV 16	1	09-Oct-2024 21:09	203_CCV.d	B CA
CCB 16	1	09-Oct-2024 21:12	204_CCB.d	B CA
ZZZZZZSD	5	09-Oct-2024 21:17	206SMPL.d	CA
ZZZZZZMS	1	09-Oct-2024 21:19	207SMPL.d	B CA
ZZZZZZMSD	1	09-Oct-2024 21:22	208SMPL.d	B CA
ZZZZZZPDS	1	09-Oct-2024 21:24	209SMPL.d	B CA
CCV 17	1	09-Oct-2024 21:29	211_CCV.d	B CA
CCB 17	1	09-Oct-2024 21:31	212_CCB.d	B CA
MW-63	1	09-Oct-2024 21:34	213SMPL.d	B
MW-37	1	09-Oct-2024 21:41	216SMPL.d	B
MW-38R	1	09-Oct-2024 21:43	217SMPL.d	B
CCV 18	1	09-Oct-2024 21:55	222_CCV.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCB 18	1	09-Oct-2024 21:58	223_CCB.d	B CA
CCV 19	1	09-Oct-2024 22:15	230_CCV.d	B CA
CCB 19	1	09-Oct-2024 22:17	231_CCB.d	B CA
CCV 20	1	09-Oct-2024 22:36	239_CCV.d	B CA
CCB 20	1	09-Oct-2024 22:39	240_CCB.d	B CA
CCV 21	1	09-Oct-2024 23:10	249_CCV.d	B CA
CCB 21	1	09-Oct-2024 23:13	250_CCB.d	B CA
CCV 22	1	09-Oct-2024 23:32	258_CCV.d	B CA
CCB 22	1	09-Oct-2024 23:35	259_CCB.d	B CA
ICSA	1	09-Oct-2024 23:37	260ICSA.d	B
ICSAB	1	09-Oct-2024 23:40	261ICSB.d	B
CCV 23	1	09-Oct-2024 23:45	263_CCV.d	B CA
CCB 23	1	09-Oct-2024 23:47	264_CCB.d	B CA
CCV 24	1	10-Oct-2024 00:09	273_CCV.d	B CA
CCB 24	1	10-Oct-2024 00:12	274_CCB.d	B CA
CCV 25	1	10-Oct-2024 00:24	279_CCV.d	B CA
CCB 25	1	10-Oct-2024 00:26	280_CCB.d	B CA
CCV 26	1	10-Oct-2024 00:48	289_CCV.d	B CA
CCB 26	1	10-Oct-2024 00:50	290_CCB.d	B CA
CCV 27	1	10-Oct-2024 01:12	299_CCV.d	B CA
CCB 27	1	10-Oct-2024 01:15	300_CCB.d	B CA
CCV 28	1	10-Oct-2024 01:39	310_CCV.d	B CA
CCB 28	1	10-Oct-2024 01:42	311_CCB.d	B CA
LLCCV2	1	10-Oct-2024 01:47	313LCV2.d	B
LLCCV5	1	10-Oct-2024 01:49	314LCV5.d	B
ICSA	1	10-Oct-2024 01:51	315ICSA.d	B
ICSAB	1	10-Oct-2024 01:54	316ICSB.d	B

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

CCB	Date	Seq	D/F	Units
CCB 3	09-Oct-2024 12:05	8300328	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	11.15	11	20

CCB	Date	Seq	D/F	Units
CCB 4	09-Oct-2024 12:34	8300461	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	14.24	11	20

CCB	Date	Seq	D/F	Units
CCB 7	09-Oct-2024 14:10	8300842	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	17.62	11	20

CCB	Date	Seq	D/F	Units
CCB 12	09-Oct-2024 16:40	8301900	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	14.65	11	20

CCB	Date	Seq	D/F	Units
CCB 13	09-Oct-2024 20:08	8301918	1	ug/L

Analyte	Result	MDL	Report Limit
Calcium	85.71	34	500

CCB	Date	Seq	D/F	Units
CCB 14	09-Oct-2024 20:37	8301930	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	14.96	11	20

CCB	Date	Seq	D/F	Units
CCB 15	09-Oct-2024 21:01	8301940	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	17.6	11	20

CCB	Date	Seq	D/F	Units
CCB 16	09-Oct-2024 21:12	8302069	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	17	11	20

CCB	Date	Seq	D/F	Units
CCB 17	09-Oct-2024 21:31	8302077	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	29.94	11	20

CCB	Date	Seq	D/F	Units
CCB 18	09-Oct-2024 21:58	8302088	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	17.38	11	20

CCB	Date	Seq	D/F	Units
CCB 21	09-Oct-2024 23:13	8302110	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	11.93	11	20

CCB	Date	Seq	D/F	Units
CCB 22	09-Oct-2024 23:35	8302119	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	23.51	11	20

CCB	Date	Seq	D/F	Units
CCB 23	09-Oct-2024 23:47	8302124	1	ug/L

Analyte	Result	MDL	Report Limit
Boron	18.85	11	20

CCB	Date	Seq	D/F	Units
CCB 24	10-Oct-2024 00:12	8302094	1	ug/L

Analyte	Result	MDL	Report Limit

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Analyte	Result	MDL	Report Limit
Boron	14.91	11	20

CCB 25 Date: 10-Oct-2024 00:26 Seq: 8302100 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	11.64	11	20

CCB 26 Date: 10-Oct-2024 00:50 Seq: 8302213 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	25.85	11	20

CCB 27 Date: 10-Oct-2024 01:15 Seq: 8302187 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	31.93	11	20

CCB 28 Date: 10-Oct-2024 01:42 Seq: 8302198 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	60.9	11	20

Client: TRC
Project: WA Parish CCR Program Resample
Work Order: HS24091436

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24091436-01	MW-63	Water		26-Sep-2024 10:35	26-Sep-2024 12:03	☐
HS24091436-02	MW-64	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐
HS24091436-03	MW-37	Water		26-Sep-2024 08:35	26-Sep-2024 12:03	☐
HS24091436-04	MW-38R	Water		26-Sep-2024 09:15	26-Sep-2024 12:03	☐
HS24091436-05	MW-61	Water		26-Sep-2024 09:50	26-Sep-2024 12:03	☐
HS24091436-06	MW-23R	Water		26-Sep-2024 11:00	26-Sep-2024 12:03	☐
HS24091436-07	MW-65	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐

Client: TRC

Project: WA Parish CCR Program Resample

Work Order: HS24091436

CASE NARRATIVE

Work Order Comments

- Revised final on 10/24/2024 to report calcium for sample MW-23R.

- Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-63		Lab ID:HS24091436-01
Collection Date:	26-Sep-2024 10:35		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.262**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:34
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**609**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:12

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-64		Lab ID:HS24091436-02
Collection Date:	26-Sep-2024 08:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**259**		**3.40**	**50.0**	**mg/L**	100	10-Oct-2024 12:15

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-37		Lab ID:HS24091436-03
Collection Date:	26-Sep-2024 08:35		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.482**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:41
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,400**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 14:29
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	**1,710**		**5.00**	**10.0**	**mg/L**	1	02-Oct-2024 08:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-38R		Lab ID:HS24091436-04
Collection Date:	26-Sep-2024 09:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.390**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:43
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**776**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:35

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-61		Lab ID:HS24091436-05
Collection Date:	26-Sep-2024 09:50		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**1.13**		**0.220**	**0.400**	**mg/L**	20	10-Oct-2024 12:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,360**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 14:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	**1,940**		**5.00**	**10.0**	**mg/L**	1	02-Oct-2024 08:00

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-23R		Lab ID:HS24091436-06
Collection Date:	26-Sep-2024 11:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**503**		**3.40**	**50.0**	**mg/L**	100	21-Oct-2024 14:20
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1,060**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16
Sulfate	**1,640**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample	WorkOrder:	HS24091436
Sample ID:	MW-65	Lab ID:	HS24091436-07
Collection Date:	26-Sep-2024 08:00	Matrix:	Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**775**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 15:22

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Privileged and Confidential

Weight / Prep Log

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Batch ID: 218701 **Start Date:** 08 Oct 2024 12:30 **End Date:** 08 Oct 2024 12:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 219320 **Start Date:** 21 Oct 2024 08:00 **End Date:** 21 Oct 2024 08:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 218701 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35		08 Oct 2024 12:30	09 Oct 2024 21:34	1
HS24091436-02	MW-64	26 Sep 2024 08:00		08 Oct 2024 12:30	10 Oct 2024 12:15	100
HS24091436-03	MW-37	26 Sep 2024 08:35		08 Oct 2024 12:30	09 Oct 2024 21:41	1
HS24091436-04	MW-38R	26 Sep 2024 09:15		08 Oct 2024 12:30	09 Oct 2024 21:43	1
HS24091436-05	MW-61	26 Sep 2024 09:50		08 Oct 2024 12:30	10 Oct 2024 12:13	20
HS24091436-06	MW-23R	26 Sep 2024 11:00		08 Oct 2024 12:30	21 Oct 2024 14:20	100
Batch ID: R478809 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24091436-03	MW-37	26 Sep 2024 08:35			02 Oct 2024 08:00	1
HS24091436-05	MW-61	26 Sep 2024 09:50			02 Oct 2024 08:00	1
Batch ID: R479346 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35			07 Oct 2024 14:12	10
HS24091436-03	MW-37	26 Sep 2024 08:35			07 Oct 2024 14:29	20
HS24091436-04	MW-38R	26 Sep 2024 09:15			07 Oct 2024 14:35	10
HS24091436-05	MW-61	26 Sep 2024 09:50			07 Oct 2024 14:41	20
HS24091436-06	MW-23R	26 Sep 2024 11:00			07 Oct 2024 15:16	20
HS24091436-07	MW-65	26 Sep 2024 08:00			07 Oct 2024 15:22	10

WorkOrder: HS24091436
InstrumentID: ICPMS07
Test Code: ICP_TW
Test Number: SW6020A
Test Name: ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0125	0.0140	0.0110	0.0200
A	Calcium	7440-70-2	1.00	0.990	0.0340	0.500

WorkOrder: HS24091436
InstrumentID: ICS-Integrion
Test Code: 300_W
Test Number: E300
Test Name: Anions by E300.0, Rev 2.1, 1993

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Chloride	16887-00-6	0.500	0.511	0.200	0.500
A	Sulfate	14808-79-8	0.500	0.621	0.200	0.500

WorkOrder:	HS24091436		
InstrumentID:	Balance1		
Test Code:	TDS_W 2540C		
Test Number:	M2540C	**Matrix:** Aqueous	**Units:** mg/L
Test Name:	Total Dissolved Solids by SM2540C		

METHOD DETECTION / REPORTING LIMITS

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Total Dissolved Solids (Residue, Filterable)	TDS	10.0	2.00	5.00	10.0

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:04**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302066** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.0163	0.0200								J
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:06**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302067** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4685	0.0200	0.5	0	93.7	80 - 120				
Calcium	4.501	0.500	5	0	90.0	80 - 120				

MS Sample ID: **HS24100144-07MS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:19**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302072** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5665	0.0200	0.5	0.115	90.3	80 - 120				
Calcium	162.6	0.500	5	163	-8.05	80 - 120				SO

MSD Sample ID: **HS24100144-07MSD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:22**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302073** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5982	0.0200	0.5	0.115	96.6	80 - 120	0.5665	5.44	20	
Calcium	170.1	0.500	5	163	143	80 - 120	162.6	4.53	20	SO

PDS Sample ID: **HS24100144-07PDS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:24**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302074** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6489	0.0200	0.5	0.115	107	75 - 125				
Calcium	162.5	0.500	10	163	-5.02	75 - 125				SO

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24100144-07SD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:17**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302071** PrepDate: **08-Oct-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	177.9	2.50					163	9.13	10	

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-02	HS24091436-03	HS24091436-04
HS24091436-05	HS24091436-06		

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: **R478809 (0)** **Instrument:** **Balance1** **Method:** **TOTAL DISSOLVED SOLIDS BY SM2540C-2011**

MBLK Sample ID: **WMBLK-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286792** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286791** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	922	10.0	1000	0	92.2	85 - 115				

DUP Sample ID: **HS24091533-01 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286789** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	266	10.0					274	2.96	20	

DUP Sample ID: **HS24091489-02 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286786** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	444	10.0					472	6.11	20	

The following samples were analyzed in this batch: HS24091436-03 HS24091436-05

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: R479346 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **07-Oct-2024 13:43**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298530** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **07-Oct-2024 13:54**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298531** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.29	0.500	20	0	101	90 - 110				
Sulfate	21.82	0.500	20	0	109	90 - 110				

MS Sample ID: **HS24091436-01MS** Units: **mg/L** Analysis Date: **07-Oct-2024 14:18**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298535** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	332.8	5.00	100	227.9	105	80 - 120				
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120				SO

MSD Sample ID: **HS24091436-01MSD** Units: **mg/L** Analysis Date: **07-Oct-2024 14:24**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298536** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	335.5	5.00	100	227.9	108	80 - 120	332.8	0.829	20	
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120	688.1	0.00814	20	SO

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-03	HS24091436-04	HS24091436-05
HS24091436-06	HS24091436-07		

Client:	TRC	**QUALIFIERS, ACRONYMS, UNITS**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

Sample Receipt Checklist

Work Order ID:	HS24091436	**Date/Time Received:**	**26-Sep-2024 12:03**
Client Name:	TRC-HOU	**Received by:**	**Jacob Coronado**

Completed By:	/S/ Kaycee Rogers	26-Sep-2024 20:52	**Reviewed by:** /S/ Alexis Dorenbosch	27-Sep-2024 11:38
	eSignature	Date/Time	eSignature	Date/Time

Matrices: **W** Carrier name: **Client**

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☐	☑
Chain of custody present?	☑	☐	1 Page(s)
Chain of custody signed when relinquished and received?	☑	☐	
Samplers name present on COC?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	1.3UC/1.3C	IR 34
Cooler(s)/Kit(s):	BLUE	
Date/Time sample(s) sent to storage:	09/26/2024 2052	

	Yes	No	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☑	☐	N/A ☐
pH adjusted?	☐	☑	N/A ☐

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS Laboratory Group
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

HS24091436
TRC
WA Parish CCR Program Resample

ALS Project Manager:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	211381	Project Name	WA Parish CCR Program Resample	A	ICP_TW (Boron) - Appendix III
Work Order		Project Number	528472.0000.0000	B	ICP_TW (Calcium) - Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	300_W (Chloride) - Appendix III
Send Report To	Lori Burris	Invoice Attn.	A/P	D	300_W (SO4) - Appendix III
Address	14701 St Mary's Lane Suite 500	Address	14701 St Mary's Lane Suite 500	E	TDS_W 2540C (TDS) - Appendix III
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston, TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	Lburris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-63	9-26-24	1035	Water	2,8	2	X			X							
2	MW-64		800	Water	2	1		X									
3	MW-37		835	Water	2,8	3	X			X	X						
4	MW-38R		915	Water	2,8	2	X			X							
5	MW-61		950	Water	2,8	3	X			X	X						
6	MW-23R		1100	Water	2,8	2		X	X	X							
7	MW-65		800	Water	8	1				X							
8																	
9																	
10																	

Sampler(s): Please Print & Sign
Mason Bond + HMF Team

Shipment Method: Drop off @ lab

Required Turnaround Time: ☐ Other ____ ☐ STD 10 Wk Days ☑ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Ilyas Sediqui	9-26-24	1203		NRG CCR - Priviledged and Confidential
Relinquished by:	Date: 9-26-24	Time: 1203	Received by (Laboratory):	Cooler Temp. 1.3
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): Blue	

QC Package: (Check Box Below)

X	Level II: Standard QC		TRRP-Checklist
	Level III: Std QC + Raw Data		TRRP Level IV
	Level IV: SW846 CLP-Like		
	Other: ____		

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

1235

Privileged and Confidential

ALS

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 9-26-24 Time:
Name:
Company:

Seal Broken By:

Date:

9-26-24

Attachment B

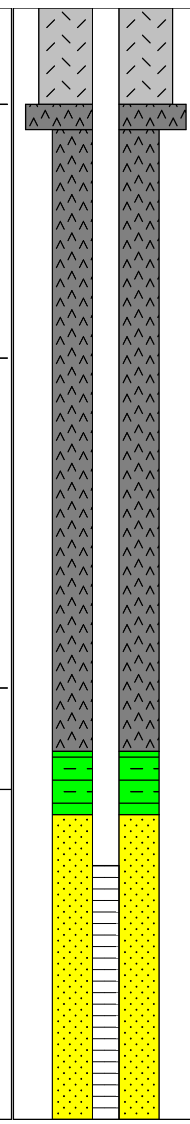
TRC BORING LOG and WELL CONSTRUCTION

MW-61R

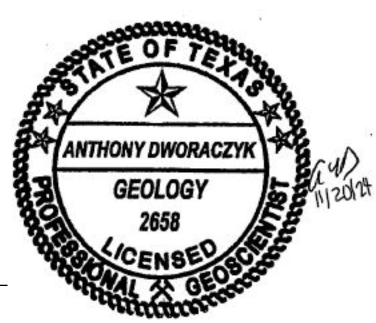
Client: NRG	TRC Project #: 634611
Site: WA Parish	Start Date: 11.7.2024 - 1120
Address: 2500 YU Jones Rd., Richmond, TX 77469	Finish Date: 11.8.2024 - 1108
Project: CCR - Well Installation	Permit #: -
Drilling Company: Best Drilling Services; Drilling Crew: Bruce, LD, Jesus	TRC Site Rep.: Jessica Atwell
Drilling Method: Hollow Stem Auger (HSA)	TRC Reviewer: Tony Dworaczyk
Boring Diameter (in): 8"; Boring Depth (ft bgs): 40'	X-Y Coord. System: GPS
Sampling Method: Split Spoon	Lat: 29.474643
Well Material/Size 40 Schedule PVC - 2"	Long: -95.635769
Field Screening Parameter: (ft) Water Meter	Well Elevation (ft) 74.98'
Well Depth: feet; Well Depth (TOC): 43.8	Ground Elevation (ft): 71.18'

Depth (ft)	Sample ID	Water Encountered During Drilling	Lithology	Lithologic Description
0-10	Sampled 3-4'		CL	CL: Trace gravel, dark brown, moist, high plasticity, highly cohesive, hard
10-23			CL	Silty Clay (CL): Light gray/brown, moist, high plasticity, highly cohesive, hard 20-25' trace gravel
23-27	Sampled 26-27'		SC	SC: Light gray/brown, moist, semi-cohesive, medium to fine grained, gravel is meadium to coarse grained, soft
27-40		Initital	SM	SM: Light to dark orange, saturated, medium to fine grained, soft

Well Description



Well Description
Stick up with 3 bollards 0-1' Grout 2x2
0-25.5' Grout
25.5-28' Bentonite Seal - 3/8" chips
28-40' Filter Pack - Sand 20/40 grade
30-40' 0.01" slot screen



Texas Commission on Environmental Quality
Waste Permits Division Correspondence Cover Sheet

Date: January 31, 2025
Facility Name: NRG-WA Parish Generating Station
Permit or Registration No.: CCR108

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision to TCEQ Tracking No.: ______ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☒ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

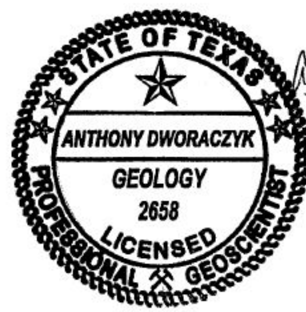
Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

I hereby certify that the alternative source demonstration presented within this document for the NRG WA Parish Coal Ash Disposal Landfill CCR Unit has been prepared to meet the requirements of 30 TAC 352.4; 352.941(c); and 352.1321. This document is accurate and has been prepared in accordance with good geosciences practices, including the consideration of applicable industry standards, and with the requirements of 30 TAC 352.4; 352.941(c); and 352.1321.

Name: Tony Dworaczyk **Expiration Date:** 1/30/2025

Company: TRC Environmental Corporation **Date:** 1/23/2025



1/23/25

TRC

Alternative Source Demonstration

W.A. Parish Electric Generating Station
Solid Waste Disposal Area (SWMU 001) CCR Multiunit

January 2025

Prepared For
NRG Texas Power, LLC
Thompsons, Texas
TCEQ Coal Combustion Residuals (CCR) Registration No. CCR108
Industrial Solid Waste Registration No. 31631
EPA Identification No. TXD097311849

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

1/23/25

Gregory E. Tieman
Senior Client Services Manager

Tony Dworaczyk, P.G.
Senior Project Manager

11767 KATY FREEWAY, SUITE 230, HOUSTON, TX 77079, ● 713.244.1073 PHONE ● WWW.TRCCOMPANIES.COM

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Executive Summary

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas. Units managing coal combustion residuals (CCR) at the Station are subject to the requirements of 30 Texas Administrative Code (TAC) Chapter 352. CCR generated at the Station consists of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge. The Site has three active CCR management units that are subject to regulation under 30 TAC Chapter 32, including the Solid Waste Disposal Area (SWDA) multi-unit landfill (Landfill), which is the subject of this Alternate Source Demonstration (ASD).

The 15th semi-annual groundwater detection monitoring event was conducted on August 28, 2024. Verification sampling was performed on September 26, 2024. Statistical evaluation of the results was performed within 60 days of sample collection to identify apparent statistically significant increases (SSIs) above background pursuant to 30 TAC 352 Subpart H. Seven apparent SSIs were identified. Three of the apparent SSIs were identified in an upgradient background monitoring well MW-23R (calcium, sulfate, and TDS). Four of the apparent SSIs were identified in the following downgradient monitoring wells:

- pH (less than LTL) was identified in MW-50, MW-52, and MW-65; and
- Sulfate was identified in monitor well MW-65.

The apparent SSIs were confirmed during the September 26, 2024, verification sampling. NRG notified the Texas Commission on Environmental Quality (TCEQ) of its intent to prepare an ASD.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the second half 2019 (July) through the first half 2021 (April). The August 28, 2024, semi-annual detection monitoring event analytical results, including the September 26, 2024, verification sampling results, are the sixth data set statistically evaluated using the new background water quality data set.

This ASD successfully identified alternative sources for the apparent SSIs at the SWDA Landfill, based on the following lines of reasoning:

- Natural variations in upgradient background groundwater quality;
- Enhanced minerals dissolution and changes in geochemical conditions within the aquifer; and
- Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the SWDA Landfill have been shown to be responsible for all the apparent SSIs. Based on preparation of this successful ASD, NRG will continue semi-annual detection monitoring for the SWDA Landfill per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) W.A. Parish Electric Generating Station (Station) is located in Thompsons, Fort Bend County, Texas, adjacent to Smithers Lake. The electricity generating portion of the Station, or the main Plant Operations Area (Plant Area), is located along the southeastern shore of the lake.

Management of coal combustion residuals (CCR) at the Station is performed pursuant to 30 Texas Administrative Code (TAC) Chapter 352, which became effective during June 2021. Prior to this, management of CCR was performed pursuant to the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Part 257 (40 CFR §257) (CCR Rule, effective date October 17, 2015) and the Phase 1, Part1 final rule (July 30, 2018). CCR generated at the Station consist of fly ash, bottom ash, and flue gas desulfurization (FGD) scrubber sludge, which have been classified by the TCEQ as Class II nonhazardous waste. The Station has the following three active CCR-management units:

- Solid Waste Disposal Area (SWDA) (SWMU 001), which consists of four active CCR-management cells: Cell 1C, Cell 2A-Pug Mill, Cell 2B, and Cell 3; and is now monitored as a single CCR Multiunit;
- Air Preheater Pond (APH Pond, SWMU 021); and
- FGD Emergency Pond (E Pond, SWMU 020).

The SWDA Landfill is located to the north of the Plant Area and the APH and E Ponds are located at the southern portion of the Plant Area. The locations of the three CCR units are shown on Figure 1. The SWDA Landfill is the subject of this Alternative Source Demonstration (ASD).

CCR-management activities at the SWDA Landfill are generally described as follows:

- Cell 1C – Receives nonmarketable CCR trucked from the plant;
- Cell 2B – Receives marketable CCR trucked from the plant;
- Cell 3 – Receives CCR bottom ash trucked from the plant; and
- Cell 2A-Pug Mill – Pug mill located at a small portion of Cell 2A and that is not currently being used for CCR management purposes.

1.1.1 Groundwater Monitoring Program

On behalf of NRG, Environmental Resources Management, Inc. (ERM) conducted eight independent background groundwater detection monitoring events for both the Appendix III and IV CCR constituents between April 2015 and August 2017 per §257.94(b) of the federal CCR Rule and the first semi-annual detection monitoring event in October 2017. Results of the eight background and first semi-annual detection monitoring events for the APH Pond were documented in the *Annual Groundwater Monitoring and Corrective Action Reports* (January 30, 2018) for the individual CCR landfill units (Cell 1C, Cell 2A, Cell 2B, and Cell 3) and the *CCR Groundwater Monitoring Reports* (March 1, 2018) for the individual CCR landfill units pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the SWDA Landfill per the federal CCR Rule and 30 TAC Chapter 352. As of the August 28, 2024, sampling event, a total of 15 semi-annual detection monitoring events have now been performed. Following each semi-annual detection monitoring sampling event, the results have been evaluated for potential SSIs, and ASDs have been prepared as needed. Since implementation of 30 TAC Chapter 352, the ASDs have been submitted to TCEQ for review and approval. The semi-annual detection monitoring activities and ASDs have been included in the Annual Groundwater Monitoring and Corrective Action reports, which have been placed into the Facility Operating Record (FOR) and posted to NRG's publicly accessible website.

As previously described in the ASD for the fourth semi-annual detection monitoring event, persistent, unresolvable issues with data quality necessitated establishment of a new background water quality data set. The new background water quality data set was developed for both Appendix III and Appendix IV CCR constituents collected quarterly from the third half 2019 (July) through the first half 2021 (April). The August 18, 2024, semi-annual detection monitoring event analytical results, including the September 26, 2024, verification sampling results, are the sixth data set statistically evaluated using the new background water quality data set.

1.2 Purpose

TRC prepared this ASD on behalf of NRG to evaluate apparent SSIs above background levels for the 15th semi-annual detection monitoring event in accordance with 30 TAC Chapter 352.

Section 2
Site Geology and Hydrogeology

This section provides information about the geology and hydrogeology of the Station and the area surrounding the SWDA landfill.

2.1 Hydrogeology

Based on the *Geologic Atlas of Texas, Houston Sheet* (BEG 1982), the Station is underlain by alluvium and the Beaumont formation (also commonly referred to as the Beaumont Clay). The alluvium is present along the Brazos River, which is located approximately 0.9 miles from the northern boundary of the SWDA Landfill. Both the alluvium and the Beaumont formation are composed of clay, silt, and sand; and may include stream channel, point-bar, natural levee, back swamp, coastal marsh, and mud-flat deposits. The thickness of the Beaumont formation is approximately 100 feet. The alluvium is not present at the Plant Area, which is consistent with this area being located outside of the Brazos River floodplain zone (FBC, 2018).

The alluvium and Beaumont Formation are located within the upper unit of the Chicot aquifer system. At most locations throughout Fort Bend County, the Chicot aquifer system is under confined conditions (TWDB 1990). The Chicot aquifer system is primarily recharged by precipitation at locations where it outcrops in Austin, Harris, and Waller Counties; groundwater then flows laterally within Fort Bend County (TWDB 1990). Site investigations performed by others on behalf of NRG also indicate that the uppermost groundwater-bearing units at the Station are under confined conditions (ERM, 2017a).

Environmental site investigations conducted in May 2016 and November 2016 identified three main subsurface strata at the Station, which were designated as Stratum DA-1 through DA-3 at the SWDA Landfill and Stratum PA-1 through PA-3 at the Plant Area (APH Pond and E Pond). The strata are fully described in the October 2017 *CCR Groundwater Monitoring Networks* report (ERM, 2017b) and are summarized below.

2.1.1 Stratum DA-1 (Upper Confining Unit)

Stratum DA-1 is predominately silty clay with some sandy clay, clay, and sandy silt. Stratum DA-1 is generally present from the ground surface to approximately 30 feet below ground surface (bgs), but this stratum ranges in thickness from 20 to 60 feet throughout the SWDA Landfill.

Stratum DA-1 serves as a confining unit to underlying Stratum DA-2, which comprises the uppermost groundwater-bearing unit at the Station. Geotechnical laboratory testing indicates that the hydraulic conductivity of Stratum DA-1 is 2.85E-08 centimeters per second (cm/sec) (ERM 2017b).

2.1.2 Stratum DA-2 (Upper Aquifer System)

Stratum DA-2 consists of interbedded sand, silty sand, clayey sand, and clayey sandy silt with some gravelly sand. The clay content within Stratum DA-2 varies across the SWDA. Stratum DA-2 is generally greater than 10 feet in thickness with bottom depths ranging from 60 to 80 feet bgs.

Stratum DA-2 is saturated and comprises the upper aquifer system at the SWDA Landfill. CCR monitoring wells at the SWDA Landfill are completed within Stratum DA-2. Slug testing results for CCR monitoring wells indicate hydraulic conductivity ranges from 6.86E-04 cm/sec to 2.59E-02 cm/sec in Stratum DA-2 (ERM, 2017b). Groundwater primarily flows to the northeast towards the Brazos River beneath the SWDA Landfill.

2.1.3 Stratum DA-3 (Lower Confining Unit)

Stratum DA-3 is predominantly clay to silty clay. This stratum appears to be the bottom confining layer to the overlying groundwater-bearing unit (Stratum DA-2). The thickness of Stratum DA-3 has not been determined at the SWDA Landfill.

2.1.4 Solid Waste Disposal Area – Certified Monitored Network

Four separate groundwater monitoring well systems were initially developed in 2016 for each of the four active CCR cells within the SWDA Landfill, which were certified by a Texas P.E. under 257.91(f) of the federal CCR Rule on October 17, 2017. The monitoring wells were completed into Stratum DA-2, the upper aquifer system at the Station.

Following successful preparation of the ASD in July 2018 for the first semi-annual detection monitoring event for the SWDA Landfill, the four individual CCR cells were combined into a single CCR multiunit landfill as allowed for in the federal CCR Rule for groundwater monitoring purposes. A revised groundwater monitoring system and revised statistical method were developed and certified by a Texas professional engineer (P.E.) for the SWDA Landfill. The monitoring wells comprising the revised groundwater monitoring system are shown in Table 1.

Table 1 Groundwater Monitoring System for SWDA CCR-Multiunit

UPGRADIENT WELLS	DOWNGRADIENT WELLS
MW-23R, MW-28D, MW-42, MW-43, MW-47, and MW-48	MW-44, MW-46R, MW-50, MW-52, MW-54, MW-55R, MW-58, and MW-65

Because of potential integrity issues with the construction of background monitoring well MW-23 (potential infiltration of grout into the well screen), it was replaced by MW-23R after the seventh quarterly background monitoring event, which occurred in January 2020. MW-23R was installed in close proximity to MW-23. A groundwater potentiometric surface map was prepared by TRC for the March 1, 2024 semi-annual detection monitoring event and is provided in this ASD as Figure 2. Historically, groundwater flows primarily to the northeast beneath the SWDA CCR multiunit at a gradient ranging from 0.0007 foot per foot (ft/ft) to 0.003 ft/ft.

2.2 Site Specific Information

Subsurface data from a soil boring recently installed as part of the current monitoring network at the nearby Emergency Pond (E-Pond) at the Station indicate that the subsurface geology beneath the W.A. Parish generating facility consists predominately of clays, silty clays with sandy clay, sandy silt, and sands and is consistent across the Station (ERM, Groundwater Monitoring networks, October 2017).

During the original installation of monitor wells for the W.A. Parish CCR monitoring networks, soil samples were not collected for Appendix III & IV CCR constituent analyses. In November 2024, monitor well MW-61R was installed at the E-Pond to replace MW-61 as part of the construction of a Zero Liquid Discharge (ZLD) wastewater treatment facility required under the Effluent Limitation Guidelines (ELG) for coal-fired power plants. During the installation of MW-61R, soil samples of native subsurface soils were collected on November 7, 2024, and analyzed for the Appendix III & IV CCR constituents. The soil samples were collected from the 3 to 4 feet and from the 26 to 27 feet intervals. The laboratory analytical results for boron and sulfate, which are the apparent SSIs for this 15th semi-annual detection monitoring event ASD, are summarized below:

Constituent	3-4' bgs	27-27'bgs
Calcium	3,260 mg/kg	41,600 mg/Kg
Sulfate	57.3 mg/Kg	83.0 mg/Kg

Based on the consistency of the subsurface soils at the SWDA and the E-Pond, and the close proximity of the SWDA and the E-Pond, the subsurface soil laboratory analytical results for the E-Pond are considered to be representative for both CCR Units. The laboratory analytical report is included as Appendix A of this ASD. As shown in the above table, the concentrations of calcium and sulfate in soils increased with depth.

Based on the results of the November 7, 2024, subsurface soils sampling event, Appendix III & IV CCR constituents naturally occur in the native soils at the Station. This indicates that Appendix III & IV CCR constituents occur naturally rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

2.3 Groundwater Geochemistry

Understanding the geochemistry of groundwater is essential to examining the groundwater monitoring data, explaining the relationships between the characteristics of the groundwater, and analyzing both natural and potential anthropogenic impacts on groundwater. Separate from potential source areas of contamination, geochemical processes are critical in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions, and adsorption-desorption processes. Based on the site geological conditions, several groundwater parameters are discussed as follows, including sulfate and boron.

2.3.1 Calcium in Groundwater

Calcium is one of the most important ionic constituents in groundwater (Razowska-jaworek, 2014). Water-rock interaction occurs when water interacts with minerals in soils or rocks, such as limestone, marble, calcite, dolomite, gypsum, fluorite, and apatite. Natural dissolution of carbonate rocks and minerals is the primary source of calcium in groundwater (Jiang et al., 2009). Calcium is an important determinant of water hardness (Ca^{2+}), while magnesium is the other hardness determinant. The most common shallow groundwater type is Ca-HCO_3 dominated and Ca(Mg)-HCO_3 dominated.

A literature review indicates the major factors that may influence the calcium concentration in groundwater include rock weathering, soil pH, electrical conductivity, and anthropogenic activities (mining, concrete material dissolution, fertilizer etc.) (Hájek et al., 2021; Schot & Wassen, 1993; Shi et al., 2018).

Regarding the concentrations of calcium in groundwater at the SWDA, the source of calcium is more likely natural rather than anthropogenic. Therefore, the increase in concentration of calcium may be related to natural variations in groundwater geochemistry associated with rock weathering, soil pH, and electrical conductivity.

2.3.2 Sulfate in Groundwater

Sulfate is ubiquitous in groundwater, with both natural and anthropogenic sources. Apart from a potential sulfate source area, the primary origin of sulfate includes mineral dissolution, atmospheric deposition, and other anthropogenic sources (Miao et al., 2012). As water moves through soil and rock formations that contain sulfate minerals, some of the sulfate dissolves into the groundwater. Minerals that contain sulfate include magnesium sulfate (Epsom salt), sodium sulfate (Glauber's salt), and calcium sulfate (gypsum). Gypsum is an important contributor to the high levels of sulphate in many aquifers of the world. Elevated concentrations of sulfate in groundwater are common in the western part of the United States (MDH, 2008).

Sulfate is mobile in soil and inputs to soil will impact groundwater. Research investigations indicate that atmospheric deposition, dissolution of gypsum, oxidation of sulfide mineral, and anthropogenic inputs will contribute to elevated sulfate concentrations in groundwater. Based on the hydrogeology at the SWDA Landfill, atmospheric deposition and anthropogenic activities could be impacting sulfate concentrations (Einsiedl & Mayer, 2005; Pu et al., 2012).

2.3.3 pH

The apparent pH SSIs appear to be related to natural variations in groundwater quality resulting in changes in the geochemistry of the uppermost aquifer system such as pH and oxidation-reduction potential (ORP) and are also related to changes in the measured concentrations of CCR constituents.

Section 3
Alternative Source Demonstration

The 15th semi-annual detection monitoring event was conducted on August 28, 2024, per 30 TAC Chapter 352. Statistical evaluation of the results (comparison of downgradient monitoring results to 95 percent confidence/95 percent coverage upper tolerance limits [UTLs]) was performed within 60 days of sample collection to identify apparent SSIs above background pursuant to 30 TAC 352, Subpart H. Three apparent SSIs were identified: calcium, sulfate, and pH.

As part of the ASD activities, verification sampling was conducted on September 26, 2024, for the apparent SSIs. Statistical evaluation to identify SSIs for the verification sampling was performed within 60 days of sample collection. Three apparent SSIs were confirmed: calcium, sulfate, and pH. Based on the results of the verification sampling and statistical analysis, NRG notified the TCEQ of its intent to prepare an ASD addressing the apparent SSIs.

The UTLs and sampling results for the for the apparent SSIs are provided in Table 2 below.

Table 2. SSIs – August 28, 2024, Semi-Annual Detection Monitoring

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
UPGRADIENT MONITORING WELLS						
pH	MW-23R	6.9	8.8	9/26/2024	6.53	s.u.
Calcium	MW-23R	N/A	420	9/26/2024	503	mg/L
Sulfate	MW-23R	N/A	670	9/26/2024	1,640	mg/L
DOWNGRADIENT MONITORING WELLS						
pH	MW-50	6.9	8.8	9/26/2024	6.83	s.u.
pH	MW-52	6.9	8.8	9/26/2024	6.79	s.u.
pH	MW-65	6.9	8.8	9/26/2024	6.76	s.u.
Sulfate	MW-65	N/A	670	9/26/2024	775	s.u.

mg/L= milligrams per liter N/A = Not Applicable
LTL – Lower Tolerance Limit UTL – Upper Tolerance Limit s.u. – Standard Units

MW-23R is located hydraulically upgradient of the SWDA and is an upgradient background monitoring location for the SWDA Landfill. Therefore, the apparent calcium, sulfate, and pH SSIs observed for MW-23R are likely associated with natural variations in the geochemistry of groundwater in the aquifer and are not related to a release from the SWDA Landfill.

As discussed previously in subsection 2.2 of this ASD, on November 7, 2024, during installation of monitor well MW-61R at the E-Pond to replace MW-61 as part of the construction of a ZLD wastewater treatment facility, soil samples of native subsurface soils were collected and analyzed for the Appendix III & IV CCR constituents. The soil samples were collected from the 3 to 4 feet and from the 26 to 27 feet intervals. The laboratory analytical results for boron and sulfate, which are the apparent SSIs for this 15th semi-annual detection monitoring event ASD, are summarized below:

Constituent	3-4' bgs	27-27'bgs
Calcium	3,260 mg/kg	41,600 mg/Kg
Sulfate	57.3 mg/Kg	83.0 mg/Kg

Based on the consistency of the subsurface soils at the Station, and the close proximity of the SWDA to the E-Pond, the subsurface soil laboratory analytical results for the E-Pond are considered to be representative for both CCR Units. As shown in the above table, the concentrations of calcium and sulfate in soils increased with depth.

Based on the results of the November 7, 2024, subsurface soils sampling event, Appendix III & IV CCR constituents naturally occur in the native soils at the Station. This indicates that Appendix III & IV CCR constituents occur naturally rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

pH and sulfate were identified as apparent SSI in downgradient monitoring wells. The pH values were slightly less than the LTL for pH and the sulfate concentration was slightly greater than its UTL. As discussed previously in subsection 2.3, Groundwater Geochemistry, natural variability in groundwater concentration is anticipated. Therefore, it is likely that the minor fluctuations in pH values and sulfate in monitor wells hydraulically downgradient of the SWDA Landfill are associated with natural variations in the geochemistry of groundwater in the aquifer such as pH and oxidation-reduction potential (ORP) and are not related to a release from the SWDA Landfill.

Section 4
Conclusions

Based on statistical evaluation of the August 28, 2024, semi-annual detection monitoring event and the September 26, 2024, verification sampling event analytical results, three apparent SSIs: calcium, sulfate, and pH were identified in upgradient background monitor well MW-23R. pH was an apparent SSI for downgradient monitor wells MW-50, MW-52, and MW-65, and sulfate was an apparent SSI for MW-65. This ASD has identified the following lines of reasoning that support alternative sources for the apparent SSIs:

- Natural variations in upgradient background groundwater quality; and
- Enhanced minerals dissolution and changes in geochemical conditions within the aquifer; and
- Various concentrations of Appendix III & IV CCR constituents naturally occur in the native soils, which indicate that Appendix III & IV CCR constituents occur naturally in soil rather than anthropogenically in groundwater beneath the Station due to potential leaching and migration of CCR constituents to groundwater.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources other than a release from the SWDA Landfill have been shown to be responsible for all three apparent SSIs observed in upgradient background monitoring well MW-23R and the four apparent SSIs observed in downgradient monitor wells MW-50, MW-52, and MW-65. Based on preparation of this successful ASD, NRG will continue semi-annual detection monitoring for the SWDA Landfill per 30 TAC Chapter 352.

Section 5
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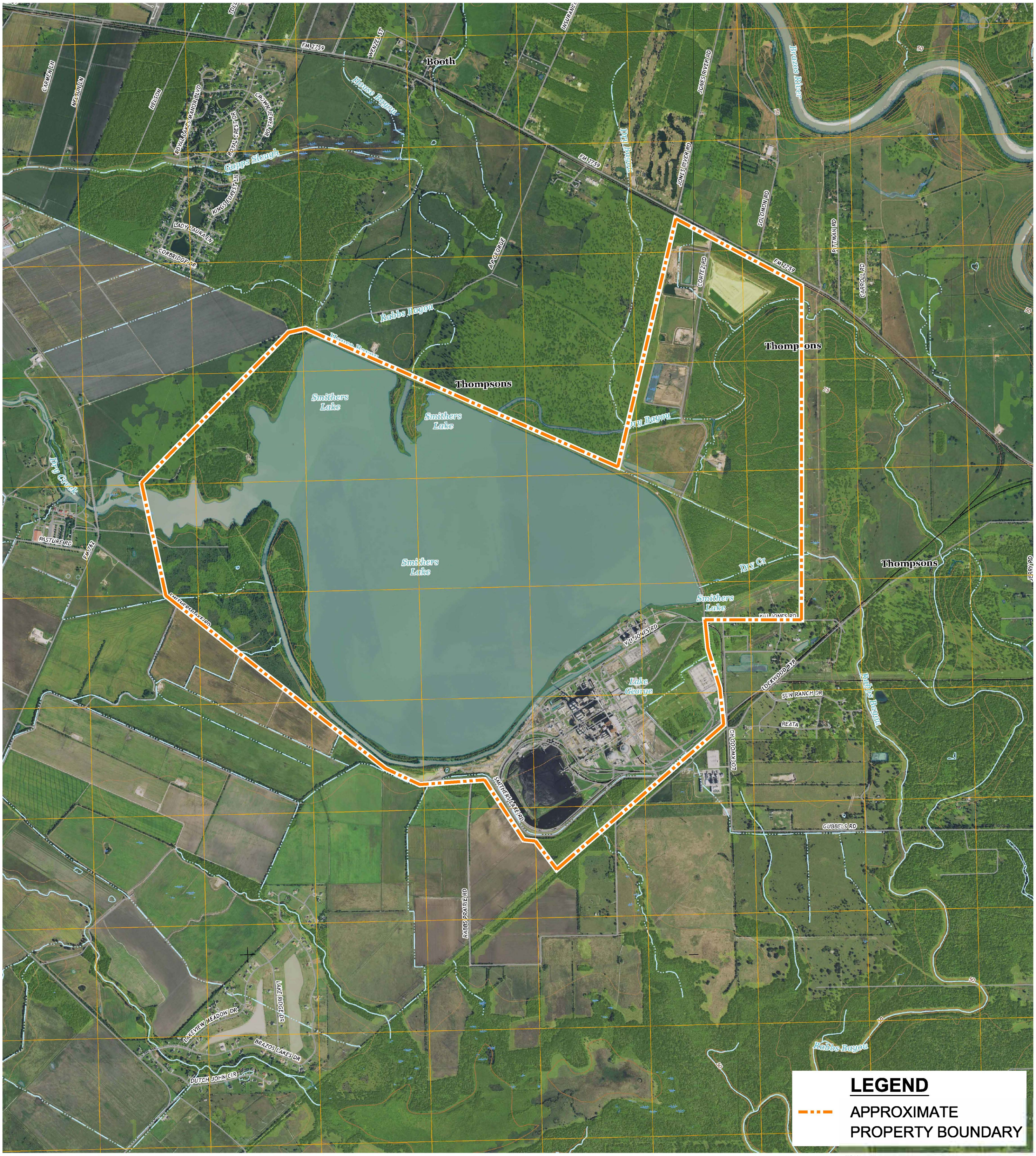
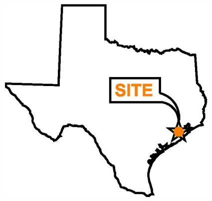
Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
MISSOURI CITY, TEXAS (2016) / SMITHERS LAKE, TEXAS (2016) / SUGAR LAND, TEXAS (2016) / THOMPSONS, TEXAS (2016)



TEXAS
QUADRANGLE LOCATION

N

0 2,000' 4,000' 8,000'

SCALE IN FEET
1" = 4,000'-0"

CLIENT / PROJECT

NRG TEXAS POWER, LLC
W.A. Parish Station
Thompsons, Texas

TITLE

SITE LOCATION MAP

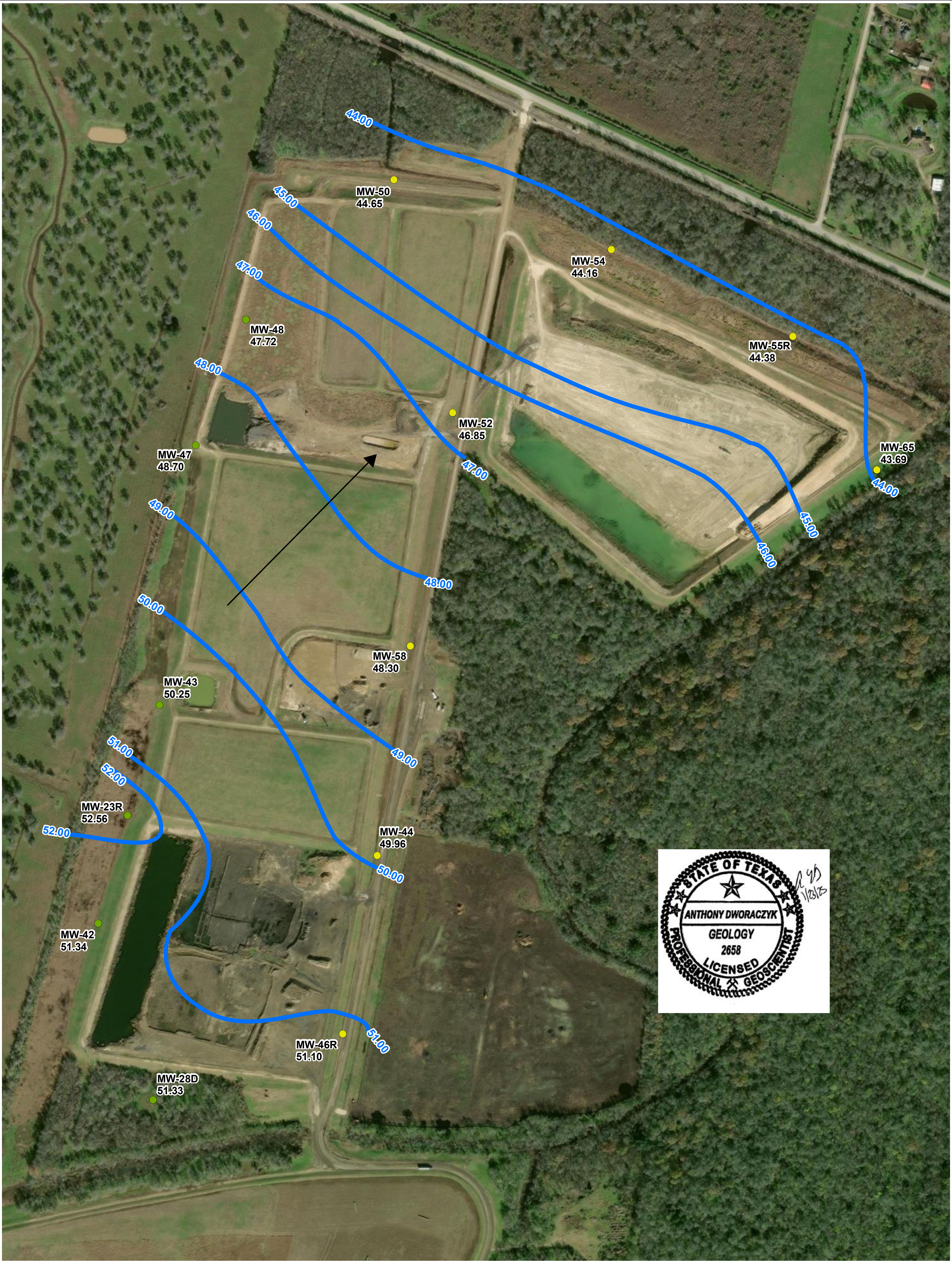
DRAWN BY: O. Fonseka	REQUEST BY: J. Atwell	PROJECT NO. 649506
DWG. DATE: January 2025	PROJECT-MGR: T. Dworaczyk	

TRC
11767 KATY FREEWAY, SUITE 850
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE
1

LAST EDIT: 01/22/2025 - FILE LOCATION: HOU C:\OF-TRC\DRAFTING-CDrive\ECR-Files\NRG\W.A. Parish Station - Thompsons-TX\2025\ Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg

DRAWING By: Oskar Fonseka - FILE NAME: Fig 1-1 - NRG-WAParishStation - Site Location Map.dwg



LEGEND

- Multiunit Upgradient Monitor Well
- Multiunit Downgradient Monitor Well
- *51.33* Groundwater Elevation (FT MSL)
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)

NOTE: GROUNDWATER ELEVATION MEASURED BY HMI ON AUGUST 2024.

0 250 500 Feet

1 " = 500 '

1:6,000

N

TRC

14701 St. Mary's Lane, Suite 500
Houston, TX 77079
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PROJECT:	NRG TEXAS POWER, LLC W.A. PARISH STATION THOMPSONS, TEXAS
TITLE:	SOLID WASTE DISPOSAL AREA GROUNDWATER POTENTIOMETRIC SURFACE MAP AUGUST 2024

DRAWN BY:	F. YARBROUGH
CHECKED BY:	J. ATWELL
APPROVED BY:	A. DWORACZYK
DATE:	DECEMBER 2024
PROJ NO:	585638.0000.0000
FILE:	585638.0000_2-7.mxd

FIGURE 2

Appendix

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Houston, TX 77099
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November 20, 2024

Lori Burris
TRC
14701 St. Mary's Lane
Suite 500
Houston, TX 77079

Work Order: **HS24091436**

Laboratory Results for: **WA Parish CCR Program Resample**

Dear Lori Burris,

ALS Environmental received 7 sample(s) on Sep 26, 2024 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL

Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:
a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	WA Parish CCR Program Resample	
WorkOrder:	**HS24091436**	

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _______________ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Andy C. Neir

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				2
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 10/11/2024				
Project Name: WA Parish CCR Program Resample			Laboratory Job Number: HS24091436				
Reviewer Name: Andy Neir			Prep Batch Number(s): 218701, R478809, R479346				
#[1]	**A[2]**	**Description**	**Yes**	**No**	**NA[3]**	**NR[4]**	**ER#[5]**
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			3
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			4
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 10/11/2024
Project Name: WA Parish CCR Program Resample	Laboratory Job Number: HS24091436
Reviewer Name: Andy Neir	Prep Batch Number(s): 218701, R478809, R479346

ER#[5]	Description
1	Batch 218701, Metals by method SW6020, Sample HS24100144-07, MS and MSD were performed on an unrelated sample. Batch R479346, Anions by method E300.0, Sample MW-63, MS/MSD recovered outside control limits for sulfate however, the result in the parent sample is 4x greater than the spike amount
2	Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701 Revised final on 10/24/2024 to report calcium for sample MW-23R.
2	See Run Log and CCB Exception Reports
3	Batch 218701, Metals by method SW6020, Sample HS24100144-07, PDS was performed on an unrelated sample.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Oct-2024 10:34	018_ICV.d	B CA
LLICV2	1	09-Oct-2024 10:43	020LCV2.d	B
LLICV5	1	09-Oct-2024 10:45	021LCV5.d	B
ICB	1	09-Oct-2024 10:50	023_ICB.d	B CA
ICSA	1	09-Oct-2024 10:53	024ICSA.d	B
ICSAB	1	09-Oct-2024 10:55	025ICSB.d	B
CCV 1	1	09-Oct-2024 11:04	028_CCV.d	B CA
CCB 1	1	09-Oct-2024 11:06	029_CCB.d	B CA
CCV 2	1	09-Oct-2024 11:33	040_CCV.d	B CA
CCB 2	1	09-Oct-2024 11:35	041_CCB.d	B CA
CCV 3	1	09-Oct-2024 12:02	052_CCV.d	B CA
CCB 3	1	09-Oct-2024 12:05	053_CCB.d	B CA
CCV 4	1	09-Oct-2024 12:31	064_CCV.d	B CA
CCB 4	1	09-Oct-2024 12:34	065_CCB.d	B CA
CCV 5	1	09-Oct-2024 13:00	076_CCV.d	B CA
CCB 5	1	09-Oct-2024 13:03	077_CCB.d	B CA
CCV 6	1	09-Oct-2024 13:30	088_CCV.d	B CA
CCB 6	1	09-Oct-2024 13:42	091_CCB.d	B CA
CCV 7	1	09-Oct-2024 14:08	102_CCV.d	B CA
CCB 7	1	09-Oct-2024 14:10	103_CCB.d	B CA
CCV 8	1	09-Oct-2024 14:37	114_CCV.d	B CA
CCB 8	1	09-Oct-2024 14:39	115_CCB.d	B CA
CCV 9	1	09-Oct-2024 15:05	126_CCV.d	B CA
CCB 9	1	09-Oct-2024 15:08	127_CCB.d	B CA
CCV 10	1	09-Oct-2024 15:40	138_CCV.d	B CA
CCB 10	1	09-Oct-2024 15:42	139_CCB.d	B CA
CCV 11	1	09-Oct-2024 16:09	150_CCV.d	B CA
CCB 11	1	09-Oct-2024 16:11	151_CCB.d	B CA
CCV 12	1	09-Oct-2024 16:38	162_CCV.d	B CA
CCB 12	1	09-Oct-2024 16:40	163_CCB.d	B CA
CCV 13	1	09-Oct-2024 20:06	177_CCV.d	B CA
CCB 13	1	09-Oct-2024 20:08	178_CCB.d	B CA
CCV 14	1	09-Oct-2024 20:35	189_CCV.d	B CA
CCB 14	1	09-Oct-2024 20:37	190_CCB.d	B CA
CCV 15	1	09-Oct-2024 20:59	199_CCV.d	B CA
CCB 15	1	09-Oct-2024 21:01	200_CCB.d	B CA
MBLK-218701	1	09-Oct-2024 21:04	201SMPL.d	B CA
LCS-218701	1	09-Oct-2024 21:06	202SMPL.d	B CA
CCV 16	1	09-Oct-2024 21:09	203_CCV.d	B CA
CCB 16	1	09-Oct-2024 21:12	204_CCB.d	B CA
ZZZZZZZSD	5	09-Oct-2024 21:17	206SMPL.d	CA
ZZZZZZZMS	1	09-Oct-2024 21:19	207SMPL.d	B CA
ZZZZZZZMSD	1	09-Oct-2024 21:22	208SMPL.d	B CA
ZZZZZZZPDS	1	09-Oct-2024 21:24	209SMPL.d	B CA
CCV 17	1	09-Oct-2024 21:29	211_CCV.d	B CA
CCB 17	1	09-Oct-2024 21:31	212_CCB.d	B CA
MW-63	1	09-Oct-2024 21:34	213SMPL.d	B
MW-37	1	09-Oct-2024 21:41	216SMPL.d	B
MW-38R	1	09-Oct-2024 21:43	217SMPL.d	B
CCV 18	1	09-Oct-2024 21:55	222_CCV.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436
Start Date: 09-Oct-2024 End Date: 10-Oct-2024

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCB 18	1	09-Oct-2024 21:58	223_CCB.d	B CA
CCV 19	1	09-Oct-2024 22:15	230_CCV.d	B CA
CCB 19	1	09-Oct-2024 22:17	231_CCB.d	B CA
CCV 20	1	09-Oct-2024 22:36	239_CCV.d	B CA
CCB 20	1	09-Oct-2024 22:39	240_CCB.d	B CA
CCV 21	1	09-Oct-2024 23:10	249_CCV.d	B CA
CCB 21	1	09-Oct-2024 23:13	250_CCB.d	B CA
CCV 22	1	09-Oct-2024 23:32	258_CCV.d	B CA
CCB 22	1	09-Oct-2024 23:35	259_CCB.d	B CA
ICSA	1	09-Oct-2024 23:37	260ICSA.d	B
ICSAB	1	09-Oct-2024 23:40	261ICSB.d	B
CCV 23	1	09-Oct-2024 23:45	263_CCV.d	B CA
CCB 23	1	09-Oct-2024 23:47	264_CCB.d	B CA
CCV 24	1	10-Oct-2024 00:09	273_CCV.d	B CA
CCB 24	1	10-Oct-2024 00:12	274_CCB.d	B CA
CCV 25	1	10-Oct-2024 00:24	279_CCV.d	B CA
CCB 25	1	10-Oct-2024 00:26	280_CCB.d	B CA
CCV 26	1	10-Oct-2024 00:48	289_CCV.d	B CA
CCB 26	1	10-Oct-2024 00:50	290_CCB.d	B CA
CCV 27	1	10-Oct-2024 01:12	299_CCV.d	B CA
CCB 27	1	10-Oct-2024 01:15	300_CCB.d	B CA
CCV 28	1	10-Oct-2024 01:39	310_CCV.d	B CA
CCB 28	1	10-Oct-2024 01:42	311_CCB.d	B CA
LLCCV2	1	10-Oct-2024 01:47	313LCV2.d	B
LLCCV5	1	10-Oct-2024 01:49	314LCV5.d	B
ICSA	1	10-Oct-2024 01:51	315ICSA.d	B
ICSAB	1	10-Oct-2024 01:54	316ICSB.d	B

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

CCB 3	Date: 09-Oct-2024 12:05	Seq: 8300328	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	11.15	11	20

CCB 4	Date: 09-Oct-2024 12:34	Seq: 8300461	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	14.24	11	20

CCB 7	Date: 09-Oct-2024 14:10	Seq: 8300842	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17.62	11	20

CCB 12	Date: 09-Oct-2024 16:40	Seq: 8301900	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	14.65	11	20

CCB 13	Date: 09-Oct-2024 20:08	Seq: 8301918	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Calcium	85.71	34	500

CCB 14	Date: 09-Oct-2024 20:37	Seq: 8301930	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	14.96	11	20

CCB 15	Date: 09-Oct-2024 21:01	Seq: 8301940	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17.6	11	20

CCB 16	Date: 09-Oct-2024 21:12	Seq: 8302069	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17	11	20

CCB 17	Date: 09-Oct-2024 21:31	Seq: 8302077	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	29.94	11	20

CCB 18	Date: 09-Oct-2024 21:58	Seq: 8302088	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	17.38	11	20

CCB 21	Date: 09-Oct-2024 23:13	Seq: 8302110	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	11.93	11	20

CCB 22	Date: 09-Oct-2024 23:35	Seq: 8302119	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	23.51	11	20

CCB 23	Date: 09-Oct-2024 23:47	Seq: 8302124	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Boron	18.85	11	20

CCB 24	Date: 10-Oct-2024 00:12	Seq: 8302094	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**

CCB EXCEPTIONS REPORT

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Run ID:ICPMS07_479407
Instrument:ICPMS07
Method:SW6020A

	Analyte	Result	MDL	Report Limit
	Boron	14.91	11	20
CCB 25 Date: 10-Oct-2024 00:26 Seq: 8302100 D/F: 1 Units: ug/L	**Analyte**	**Result**	**MDL**	**Report Limit**
	Boron	11.64	11	20
CCB 26 Date: 10-Oct-2024 00:50 Seq: 8302213 D/F: 1 Units: ug/L	**Analyte**	**Result**	**MDL**	**Report Limit**
	Boron	25.85	11	20
CCB 27 Date: 10-Oct-2024 01:15 Seq: 8302187 D/F: 1 Units: ug/L	**Analyte**	**Result**	**MDL**	**Report Limit**
	Boron	31.93	11	20
CCB 28 Date: 10-Oct-2024 01:42 Seq: 8302198 D/F: 1 Units: ug/L	**Analyte**	**Result**	**MDL**	**Report Limit**
	Boron	60.9	11	20

Client: TRC
Project: WA Parish CCR Program Resample
Work Order: HS24091436

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24091436-01	MW-63	Water		26-Sep-2024 10:35	26-Sep-2024 12:03	☐
HS24091436-02	MW-64	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐
HS24091436-03	MW-37	Water		26-Sep-2024 08:35	26-Sep-2024 12:03	☐
HS24091436-04	MW-38R	Water		26-Sep-2024 09:15	26-Sep-2024 12:03	☐
HS24091436-05	MW-61	Water		26-Sep-2024 09:50	26-Sep-2024 12:03	☐
HS24091436-06	MW-23R	Water		26-Sep-2024 11:00	26-Sep-2024 12:03	☐
HS24091436-07	MW-65	Water		26-Sep-2024 08:00	26-Sep-2024 12:03	☐

Client: TRC

Project: WA Parish CCR Program Resample

Work Order: HS24091436

CASE NARRATIVE

Work Order Comments

- Revised final on 10/24/2024 to report calcium for sample MW-23R.
- Revised final on 11/20/2024 to include Method Blank for Metals Method SW6020 batch 218701

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-63		Lab ID:HS24091436-01
Collection Date:	26-Sep-2024 10:35		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.262**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:34
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**609**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:12

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-64		Lab ID:HS24091436-02
Collection Date:	26-Sep-2024 08:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**259**		**3.40**	**50.0**	**mg/L**	100	10-Oct-2024 12:15

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample	WorkOrder:	HS24091436
Sample ID:	MW-37	Lab ID:	HS24091436-03
Collection Date:	26-Sep-2024 08:35	Matrix:	Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.482**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:41
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,400**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 14:29
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	**1,710**		**5.00**	**10.0**	**mg/L**	1	02-Oct-2024 08:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-38R		Lab ID:HS24091436-04
Collection Date:	26-Sep-2024 09:15		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**0.390**		**0.0110**	**0.0200**	**mg/L**	1	09-Oct-2024 21:43
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**776**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 14:35

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-61		Lab ID:HS24091436-05
Collection Date:	26-Sep-2024 09:50		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Boron	**1.13**		**0.220**	**0.400**	**mg/L**	20	10-Oct-2024 12:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,360**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 14:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	**1,940**		**5.00**	**10.0**	**mg/L**	1	02-Oct-2024 08:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-23R		Lab ID:HS24091436-06
Collection Date:	26-Sep-2024 11:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 08-Oct-2024		Analyst: MSC
Calcium	**503**		**3.40**	**50.0**	**mg/L**	100	21-Oct-2024 14:20
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1,060**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16
Sulfate	**1,640**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2024 15:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client:	TRC		**ANALYTICAL REPORT**
Project:	WA Parish CCR Program Resample		WorkOrder:HS24091436
Sample ID:	MW-65		Lab ID:HS24091436-07
Collection Date:	26-Sep-2024 08:00		Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**775**		**2.00**	**5.00**	**mg/L**	10	07-Oct-2024 15:22

Weight / Prep Log

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

Batch ID: 218701 **Start Date:** 08 Oct 2024 12:30 **End Date:** 08 Oct 2024 12:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 219320 **Start Date:** 21 Oct 2024 08:00 **End Date:** 21 Oct 2024 08:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24091436-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 218701 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35		08 Oct 2024 12:30	09 Oct 2024 21:34	1
HS24091436-02	MW-64	26 Sep 2024 08:00		08 Oct 2024 12:30	10 Oct 2024 12:15	100
HS24091436-03	MW-37	26 Sep 2024 08:35		08 Oct 2024 12:30	09 Oct 2024 21:41	1
HS24091436-04	MW-38R	26 Sep 2024 09:15		08 Oct 2024 12:30	09 Oct 2024 21:43	1
HS24091436-05	MW-61	26 Sep 2024 09:50		08 Oct 2024 12:30	10 Oct 2024 12:13	20
HS24091436-06	MW-23R	26 Sep 2024 11:00		08 Oct 2024 12:30	21 Oct 2024 14:20	100
Batch ID: R478809 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24091436-03	MW-37	26 Sep 2024 08:35			02 Oct 2024 08:00	1
HS24091436-05	MW-61	26 Sep 2024 09:50			02 Oct 2024 08:00	1
Batch ID: R479346 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24091436-01	MW-63	26 Sep 2024 10:35			07 Oct 2024 14:12	10
HS24091436-03	MW-37	26 Sep 2024 08:35			07 Oct 2024 14:29	20
HS24091436-04	MW-38R	26 Sep 2024 09:15			07 Oct 2024 14:35	10
HS24091436-05	MW-61	26 Sep 2024 09:50			07 Oct 2024 14:41	20
HS24091436-06	MW-23R	26 Sep 2024 11:00			07 Oct 2024 15:16	20
HS24091436-07	MW-65	26 Sep 2024 08:00			07 Oct 2024 15:22	10

WorkOrder: HS24091436
InstrumentID: ICPMS07
Test Code: ICP_TW
Test Number: SW6020A
Test Name: ICP-MS Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Boron	7440-42-8	0.0125	0.0140	0.0110	0.0200
A	Calcium	7440-70-2	1.00	0.990	0.0340	0.500

WorkOrder: HS24091436
InstrumentID: ICS-Integrion
Test Code: 300_W
Test Number: E300
Test Name: Anions by E300.0, Rev 2.1, 1993

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Chloride	16887-00-6	0.500	0.511	0.200	0.500
A	Sulfate	14808-79-8	0.500	0.621	0.200	0.500

Revision:2

WorkOrder: HS24091436
InstrumentID: Balance1
Test Code: TDS_W 2540C
Test Number: M2540C
Test Name: Total Dissolved Solids by SM2540C

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Total Dissolved Solids (Residue, Filterable)	TDS	10.0	2.00	5.00	10.0

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

MBLK Sample ID: **MBLK-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:04**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302066** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.0163	0.0200								J
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-218701** Units: **mg/L** Analysis Date: **09-Oct-2024 21:06**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302067** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4685	0.0200	0.5	0	93.7	80 - 120				
Calcium	4.501	0.500	5	0	90.0	80 - 120				

MS Sample ID: **HS24100144-07MS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:19**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302072** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5665	0.0200	0.5	0.115	90.3	80 - 120				
Calcium	162.6	0.500	5	163	-8.05	80 - 120				SO

MSD Sample ID: **HS24100144-07MSD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:22**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302073** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5982	0.0200	0.5	0.115	96.6	80 - 120	0.5665	5.44	20	
Calcium	170.1	0.500	5	163	143	80 - 120	162.6	4.53	20	SO

PDS Sample ID: **HS24100144-07PDS** Units: **mg/L** Analysis Date: **09-Oct-2024 21:24**
Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302074** PrepDate: **08-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6489	0.0200	0.5	0.115	107	75 - 125				
Calcium	162.5	0.500	10	163	-5.02	75 - 125				SO

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: 218701 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

SD Sample ID: **HS24100144-07SD** Units: **mg/L** Analysis Date: **09-Oct-2024 21:17**

Client ID: Run ID: **ICPMS07_479407** SeqNo: **8302071** PrepDate: **08-Oct-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	177.9	2.50					163	9.13	10	

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-02	HS24091436-03	HS24091436-04
HS24091436-05	HS24091436-06		

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: R478809 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286792** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **WLCS-10022024** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286791** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	922	10.0	1000	0	92.2	85 - 115				

DUP Sample ID: **HS24091533-01 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286789** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	266	10.0					274	2.96	20	

DUP Sample ID: **HS24091489-02 DUP** Units: **mg/L** Analysis Date: **02-Oct-2024 08:00**
Client ID: Run ID: **Balance1_478809** SeqNo: **8286786** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	444	10.0					472	6.11	20	

The following samples were analyzed in this batch: HS24091436-03 HS24091436-05

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QC BATCH REPORT

Batch ID: R479346 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **07-Oct-2024 13:43**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298530** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **07-Oct-2024 13:54**
Client ID: Run ID: **ICS-Integrion_479346** SeqNo: **8298531** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.29	0.500	20	0	101	90 - 110				
Sulfate	21.82	0.500	20	0	109	90 - 110				

MS Sample ID: **HS24091436-01MS** Units: **mg/L** Analysis Date: **07-Oct-2024 14:18**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298535** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	332.8	5.00	100	227.9	105	80 - 120				
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120				SO

MSD Sample ID: **HS24091436-01MSD** Units: **mg/L** Analysis Date: **07-Oct-2024 14:24**
Client ID: **MW-63** Run ID: **ICS-Integrion_479346** SeqNo: **8298536** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	335.5	5.00	100	227.9	108	80 - 120	332.8	0.829	20	
Sulfate	688.1	5.00	100	609.1	79.0	80 - 120	688.1	0.00814	20	SO

The following samples were analyzed in this batch:

HS24091436-01	HS24091436-03	HS24091436-04	HS24091436-05
HS24091436-06	HS24091436-07		

Client: TRC
Project: WA Parish CCR Program Resample
WorkOrder: HS24091436

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

Sample Receipt Checklist

Work Order ID: HS24091436 **Date/Time Received:** 26-Sep-2024 12:03
Client Name: TRC-HOU **Received by:** Jacob Coronado

Completed By: /S/ Kaycee Rogers	26-Sep-2024 20:52	**Reviewed by:** /S/ Alexis Dorenbosch	27-Sep-2024 11:38
eSignature	Date/Time	eSignature	Date/Time

Matrices: **W** Carrier name: **Client**

	Yes	No	
Shipping container/cooler in good condition?	☑	☐	Not Present ☐
Custody seals intact on shipping container/cooler?	☐	☐	Not Present ☑
Custody seals intact on sample bottles?	☐	☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☐	Not Present ☑
Chain of custody present?	☑	☐	1 Page(s)
Chain of custody signed when relinquished and received?	☑	☐	
Samplers name present on COC?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	1.3UC/1.3C	IR 34
Cooler(s)/Kit(s):	BLUE	
Date/Time sample(s) sent to storage:	09/26/2024 2052	

	Yes	No	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☑	☐	N/A ☐
pH adjusted?	☐	☑	N/A ☐

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

☑ ALS Laboratory Group
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

HS24091436
TRC
WA Parish CCR Program Resample

ALS Project Manager:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	211381	Project Name	WA Parish CCR Program Resample	A	ICP_TW (Boron) - Appendix III
Work Order		Project Number	528472.0000.0000	B	ICP_TW (Calcium) - Appendix III
Company Name	TRC Corporation	Bill To Company	TRC	C	300_W (Chloride) - Appendix III
Send Report To	Lori Burris	Invoice Attn.	A/P	D	300_W (SO4) - Appendix III
Address	14701 St Mary's Lane	Address	14701 St Mary's Lane	E	TDS_W 2540C (TDS) - Appendix III
	Suite 500		Suite 500	F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston, TX 77079	G	
Phone	(713) 244-1000	Phone	(713) 244-1000	H	
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	Lburris@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-63	9-26-24	1035	Water	2,8	2	X			X							
2	MW-64		800	Water	2	1		X									
3	MW-37		835	Water	2,8	3	X			X	X						
4	MW-38R		915	Water	2,8	2	X			X							
5	MW-61		950	Water	2,8	3	X			X	X						
6	MW-23R		1100	Water	2,8	2		X	X	X							
7	MW-65		800	Water	8	1				X							
8																	
9																	
10																	

Sampler(s): Please Print & Sign: Mason Bond + HMI Team

Shipment Method: Drop off @ lab

Required Turnaround Time: ☐ STD 10 Wk Days ☑ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other ________

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Ilyas Sediqui	9-26-24	1203		NRG CCR - Priviledged and Confidential
Relinquished by:	Date: 9-26-24	Time: 1203	Received by (Laboratory):	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): Blue	1.3

QC Package: (Check Box Below)

X	Level II: Standard QC		TRRP-Checklist
	Level III: Std QC + Raw Data		TRRP Level IV
	Level IV: SW846 CLP-Like		
	Other: ________		

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

1235

ALS

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL		Seal Broken By:
Date: 9-26-24	Time:	Date:
Name:		
Company:		

9-26-24